



# WON-DOOR FireGuard

The ORIGINAL horizontal-sliding  
accordion fire door



RADIAL



CROSS-CORRIDOR



WIDE SPAN

## Meets all IBC and NFPA Egress Requirements

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Providing Architects with DESIGN  
FREEDOM since 1962

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# FIRE SAFETY by Design

Founded in 1962, Won-Door Corporation introduced the world's most durable, acoustically-rated, folding partition. In 1977, the company pioneered the development of the first-ever accordion-type, fire-rated, horizontal-sliding door. Today, more than 55 years later, Won-Door remains the industry leader in the manufacture of accordion-type fire doors and movable fire walls. Technology developed by Won-Door engineers continues to influence the building products and fire protection industries.

## SETTING THE STANDARD

### The First to Gain Universal Acceptance

The development of the accordion-type, horizontally sliding fire door – as manufactured by Won-Door Corporation – has had a profound influence on the model code requirements that regulate their use, leading to its universal acceptance for use in virtually any means of egress application.

### The first to be UL listed

The Won-Door FireGuard was the first accordion-type fire door to successfully pass nationally recognized tests to withstand the passage of fire. Won-Door FireGuard products are listed by Underwriters Laboratories Inc. (UL) for up to 3 hours as a rated door assembly and 2 hours as a movable fire wall.

### Still on the cutting-edge

Only Won-Door FireGuard doors have a flat lead post option that eliminates the need for a pocket cover door. This option, along with our compressed stack panels combine to reduce traditional stack depths by up to 50%.

## ENGINEERED TO FIT YOUR NEEDS

Why be limited by traditional forms of opening protectives like roll-down shutters or swing-type doors? The custom-made Won-Door FireGuard fire door can accommodate virtually any opening. Capable of spanning wide openings and heights up to 28 feet\* – even radial configurations are possible. Best of all, the single- or bi-parting doors are engineered to fit your design while meeting all code requirements for egress and fire ratings.

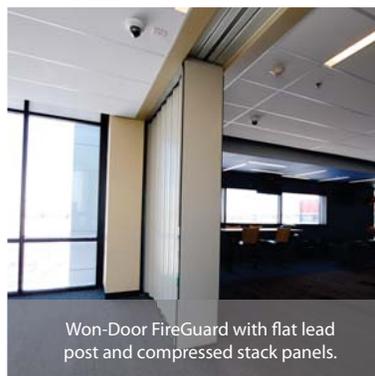
**WON-DOOR  
CORPORATION**

WWW.WONDOOR.COM

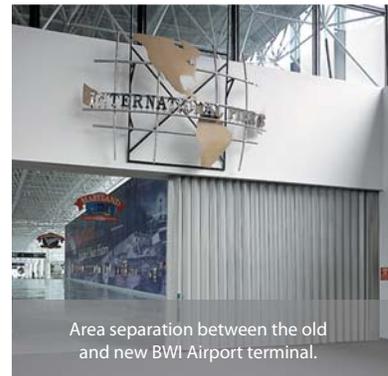
(800) 453-8494



**WON-DOOR**  
fire & security solutions



Won-Door FireGuard with flat lead post and compressed stack panels.



Area separation between the old and new BWI Airport terminal.

## SUPERIOR PERFORMANCE, SUPERIOR SERVICE

Company-owned sales offices placed strategically around the country, plus a highly skilled team of designers, engineers and field technicians, provide product service and support across the United States. Thoroughly knowledgeable about building codes as well as construction, our sales team can be relied upon to guide you every step of the way, so you can get your ideas off the drawing board and into existence.

Typical applications include:

- |                           |                                    |
|---------------------------|------------------------------------|
| Area Separation           | Smoke Barrier                      |
| Atrium Separation         | Smoke and Draft Control            |
| Corridor Separation       | Vertical Exit Enclosure Separation |
| Elevator Lobby Separation | Smoke Compartmentation             |
| Horizontal Exits          | Stage Proscenium Protective        |
| Occupancy Separation      | Vertical Opening Protective        |
| Safe Areas of Refuge      |                                    |



The same Won-Door FireGuard fire doors are used in this elevator lobby/ stairwell to satisfy two code-enclosure requirements – protection of a vertical opening as well as elevator lobby separation.

**APPLICATION**  
Elevator Lobby Separation in  
Type R Occupancy

**PROJECT**  
Gold Country Hotel & Casino

**LOCATION**  
Oroville, California

**PROJECT ARCHITECT**  
Varond Design Group  
Won-Door FireGuard fire doors are used to create unobtrusive, yet code-compliant, elevator lobbies that are compatible with the decor of this high-rise hotel and casino in Northern California.

# EGRESS APPLICATIONS

USE WON-DOOR FIREGUARD IN LIEU OF SWING DOORS



## APPLICATION

Vertical Opening Protective

## PROJECT

Arizona State University  
Athletics Facility

## LOCATION

Tempe, Arizona

## PROJECT ARCHITECT

DWL Architects

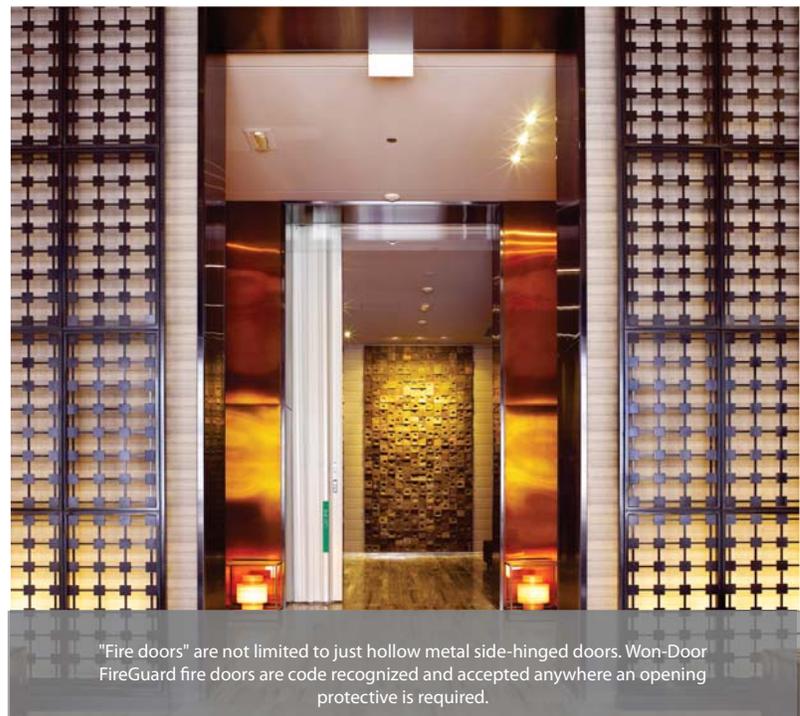


Exit Device complies with IBC, NFPA and ADA

USE WON-DOOR FIREGUARD IN LIEU OF REDUCING THE SIZE OF RATED OPENINGS



Exit Device complies with IBC, NFPA and ADA



"Fire doors" are not limited to just hollow metal side-hinged doors. Won-Door FireGuard fire doors are code recognized and accepted anywhere an opening protective is required.

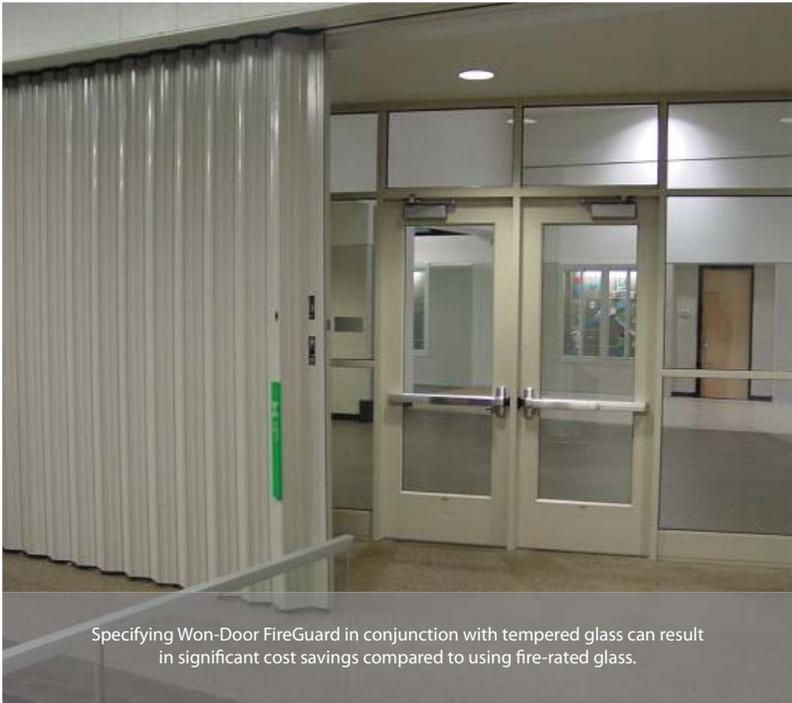
# ADDITIONAL APPLICATIONS

## USE WON-DOOR FIREGUARD IN LIEU OF SHUTTERS

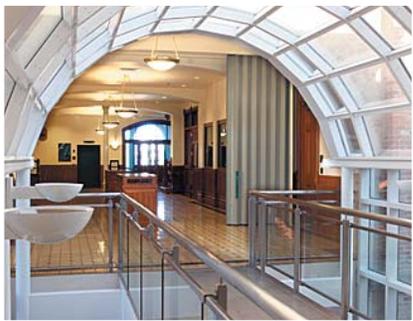


By redefining what is typically described as an "atrium", Won-Door FireGuard fire doors meet the required fire separation between adjacent spaces while eliminating costly atrium requirements such as sprinklers and smoke evacuation systems.

## USE WON-DOOR FIREGUARD IN LIEU OF FIRE-RATED GLASS



Specifying Won-Door FireGuard in conjunction with tempered glass can result in significant cost savings compared to using fire-rated glass.



APPLICATION  
Area Separation

PROJECT  
Provo City Library

LOCATION  
Provo, Utah

PROJECT ARCHITECT  
A non-rated clerestory joins the renovated historic 1892 building with a large modern library addition. Combining the old and the new presented a code-compliance challenge. Since the aggregate square footage exceeded the allowable area, defined in the current code, a two hour fire barrier – the Won-Door FireGuard – was used to separate a large portion of the historic renovation. By taking advantage of the approved widespan opening protective capabilities, historic ambiance and code compliance were easily accommodated.

# VALUE ENGINEERING OPTIONS

## using Won-Door FireGuard



### A. FIRE-RATED GLASS:

Won-Door is often 1/3 the cost to protect the same opening. Use tempered glass or clear opening with Won-Door FireGuard for:

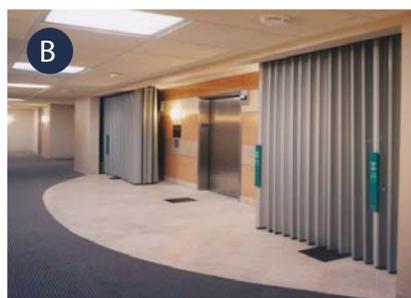
- Exterior Rated Windows/Facades
- Atriums & Mezzanines
- Rated Glass Enclosure



### B. ELEVATOR LOBBIES:

Point of Access single door enclosure is often the least expensive option compared to pressurized shafts and full elevator lobbies on every floor.

- Per ASTM 1784 without an artificial bottom seal
- 2015 IBC 3006.3 exception 3



### C. ATRIUMS:

Enclosing the upper floors during fire alarm, turns the “atrium” into a “shaft” per 2015 IBC. The following may be omitted:

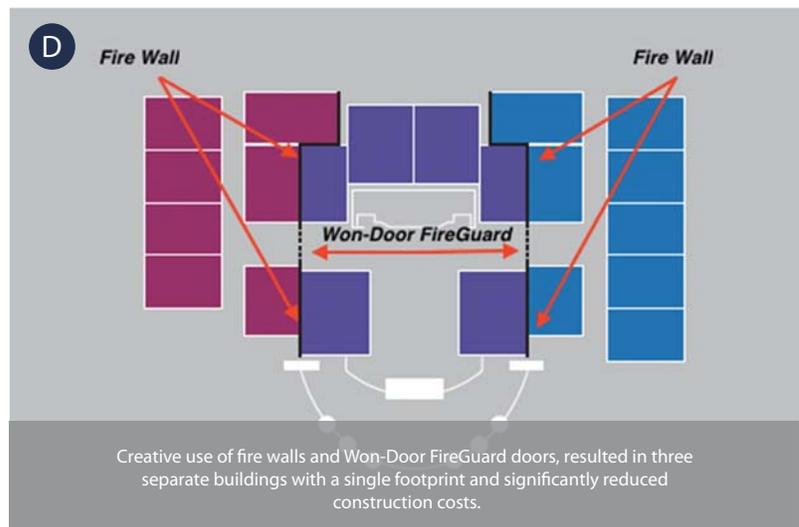
- Smoke Purge
- 1-hour rating on all adjacent walls
- Full Building Sprinkler
- Class B Finishes



### D. AREA ALLOWANCES:

Introduction of fire walls with large openings to connect the spaces, reduces floor area of an occupancy – sprinkler and construction-type requirements are also reduced.

See Table 506.2 2015 IBC

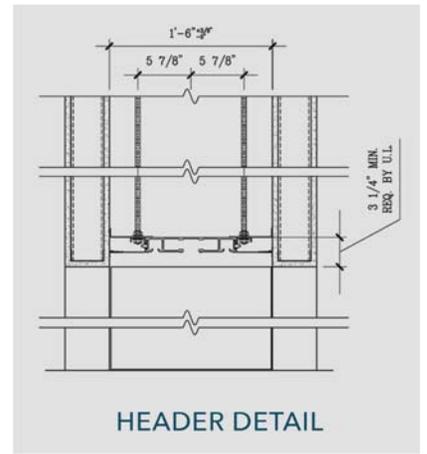
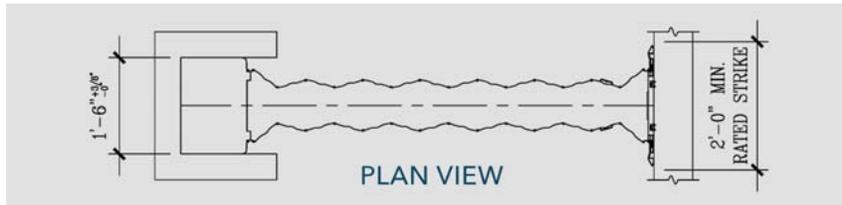


# FireGuard CONFIGURATIONS

All Won-Door FireGuard doors are made to fit your design. We offer different configurations based on your design criteria. Won-Door FireGuard assemblies meet all egress requirements found in IBC and NFPA. Below are samples of some of the available details:

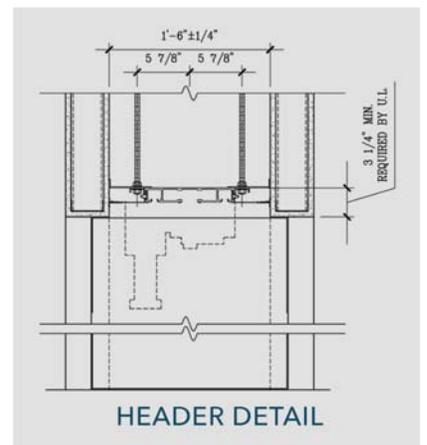
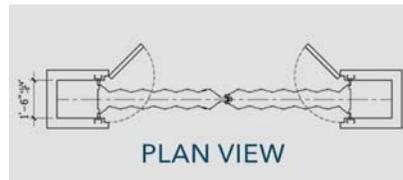
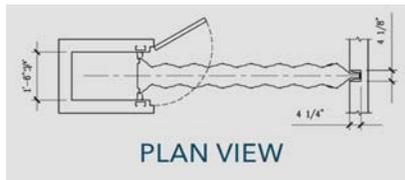
## FLAT LEAD POST

- Opening sizes up to 40 feet wide and 12 feet tall
- Straight, single-parting configurations
- Integrated pocket cover door



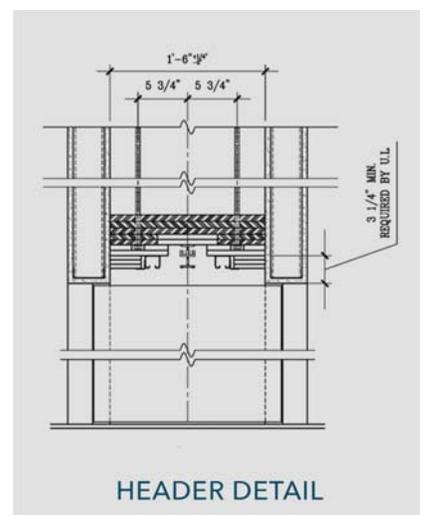
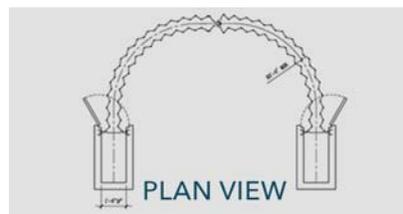
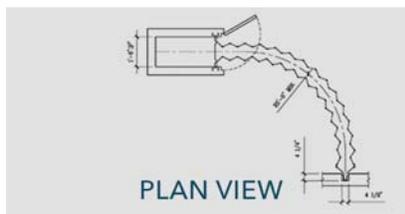
## NARROW LEAD POST

- Opening sizes
  - Unlimited widths (per U.L. label)
  - Heights up to 28 feet
  - For doors >700 square feet, contact local District Sales Manager
- Single-parting or bi-parting configurations
- Pocket cover door by others



## CURVED

- Opening sizes
  - Unlimited widths (per U.L. label)
  - Heights up to 28 feet
  - For doors >700 square feet, contact local District Sales Manager
- Single-parting or bi-parting configurations
- Minimum radius = 5' 0"
- Pocket cover door by others





**APPLICATION**  
Elevator Lobby  
Separation/Access Control

**PROJECT**  
San Diego International Airport

**LOCATION**  
San Diego, California

**PROJECT ARCHITECT**  
SPGA

The Won-Door FireGuard fire door can be used to isolate and control a security breach as well as stop the spread of fire and toxic fumes.

# LISTINGS and APPROVALS

## MEANS OF EGRESS APPLICATIONS

APPLICATIONS	2012 IBC <sup>1</sup>	2015 IBC <sup>1</sup>	2015 NFPA 101
BUILDING CODE REFERENCE	1008.1.2 exc #6	1010.1.2 exc #6	7.2.1.14
PERFORMANCE CRITERIA	1008.1.4.3	1010.1.4.3	7.2.1.14

## PRODUCT INFORMATION

MODEL NUMBER	HOURLY RATING	TEST CRITERIA	U.L. FILE NUMBER	SINGLE OR BI-PARTING	MAX. OVERSIZE LABEL SIZE
Door Assembly FireGuard FG20	20 minutes	U.L. 10B (ASTM E-2074) <sup>4</sup>	R6799	Both Available	28'0" (h) Unrestricted (w)
Door Assembly FireGuard FG60 <sup>2</sup>	1 hour	U.L. 10B (ASTM E-2074) <sup>4</sup>	R6799	Both Available	28'0" (h) Unrestricted (w)
Door Assembly FireGuard FG90 <sup>2</sup>	1 ½ hours	U.L. 10B (ASTM E-2074) <sup>4</sup>	R6799	Both Available	28'0" (h) Unrestricted (w)
Door Assembly FireGuard FG180 <sup>2</sup>	3 hours	U.L. 10B (ASTM E-2074) <sup>4</sup>	R6799	Both Available	28'0" (h) Unrestricted (w)
Wall Assembly FireGuard MFW1 <sup>3</sup>	1 hour	U.L. 263 (ASTM E-119)	R12272	Single Parting Only	N.A.
Wall Assembly FireGuard MFW2 <sup>3</sup>	2 hours	U.L. 263 (ASTM E-119)	R12272	Single Parting Only	N.A.
Automatic Closing System <sup>2</sup>	< 3 hours <sup>6</sup>	U.L. 864	E92690	Can be used for both	N.A.

<sup>1</sup> Any application without occupant load limitation except all Group H occupancies.

<sup>2</sup> Each door assembly, when required, complies with UL1784; and, with the exception of FG20, can be labeled as Temperature Rise (TR). See ESR1394.

<sup>3</sup> MFW - Movable FireWall

<sup>4</sup> Excluding cotton pad test.

<sup>5</sup> This listing applies for use on all Won-Door FireGuard models.

<sup>6</sup> Can be used on all Won-Door FireGuard models. Listed up to 3 hours.

## Other Won-Door FireGuard LISTINGS and REPORTS

ICC	Research Rep. ESR-1394
State of California Door Assemblies MFW	3261-357:001; 1080-357:100
San Francisco Dept. of Public Works	387W18.2
City of New York Listed Assemblies Oversized Assemblies	MEA-127-79-M; MEA-124-79M; MEA-383-85-M; MEA-377-86-M; MEA-70-87-M; MEA-69-87-M
State of Wisconsin	811003

# IMPORTANT INFORMATION about Specifying ACCORDION-TYPE FIRE DOORS

All accordion-type fire doors are not created equal. The Won-Door FireGuard system makes use of the latest technology and is continually tested to make sure all current building code requirements are met or exceeded. Below is a partial list of code requirements for accordion-type, fire-rated, horizontal-sliding fire doors.

ACCORDION-TYPE FIRE DOOR CODE REQUIREMENTS	CODE REFERENCE	WON-DOOR FIREGUARD
TESTED in accordance with UL 10B, NFPA 252	2015 IBC: 716.5.2	✓
AUTOMATIC CLOSING SYSTEM listed separately; UL 864	2016 NFPA 80: 9.4.1.1	✓
SMOKE & DRAFT shall bear the "S" label in accordance with UL 1784	2015 IBC: 716.5.3.1	✓
When used at the POINT OF ACCESS TO AN ELEVATOR, shall bear the "S" Label and be tested in accordance with UL 1784 WITHOUT AN ARTIFICIAL BOTTOM SEAL.	2015 IBC: 3006.3 exception #3	✓
Complies with all EGRESS REQUIREMENTS	2015 IBC: 1010.1.4.3, 2015 NFPA 101: 7.2.1.14	✓
Doors in EXIT ENCLOSURES AND EXIT PASSAGEWAYS shall meet maximum transmitted temperature requirements.	2015 IBC: 716.5.5	✓
INSTALLATION of the accordion fire door, including the frame, closing and release devices, and anchorage must be in accordance with NFPA 80	2015 IBC: 1010.1.4.3	✓
INDEPENDENTLY tested to assure compliance	ICC Evaluation Service Report ESR-1394	✓

Only the Won-Door FireGuard uses a state-of-the-art microprocessor-activated control system to guarantee reliability and enhance door function. This technology provides almost limitless opportunities for electronic communication, supervision, alarm activation and more.

AVAILABLE OPTIONS	WON-DOOR FIREGUARD
Fire ratings up to 3 hours (A Label)	✓
ASTM E-119 rating (Movable FireWall)	✓
High Speed Motors (Maximize Egress Width)	✓
Access control options	✓
Resist air pressure differential of up to .15 inches	✓
Use an infrared light beam to monitor the opening	✓
Control and monitor door functions through Building Automation System	✓

Won-Door Corporation

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## Horizontal-Sliding, Accordion-Type FIRE DOOR FREQUENTLY ASKED QUESTIONS (FAQ'S)

Is Won-Door FireGuard approved for egress applications?

Yes, Won-Door FireGuard meets all egress requirements found in NFPA 101 (Chapter 7) and IBC (Chapter 10). The assembly has also been evaluated through the ICC Evaluation Service. ICC-ES Report 1394 is available upon request.

How much does the assembly weigh?

5.5 pounds per square foot.

At what speed does the Won-Door FireGuard door travel?

NFPA 80 Chapter 9 limits the speed of the door to not less than 6" per second and not more than 24" per second. FireGuard doors are set to open and close at approximately 10" per second. High speed motor option available.

Will the Won-Door FireGuard door operate in the event of a power loss?

Yes, as required by NFPA 80 Chapter 9 the system includes a standby power source.

Does the Won-Door FireGuard door require a floor track?

No, the door does not need a floor track.

What fire ratings are available?

Available fire door ratings are 20, 60, 90 and 180 minutes. The FireGuard assembly is also available as a Movable FireWall tested in accordance with ASTM E-119.

Are smoke ratings available?

Yes, FireGuard doors are available with an "S" label.

What is the size limitation?

FireGuard doors are available in heights up to 28'. Widths are virtually unlimited.

Are radial configurations available?

Yes, standard available radii are 5' and 10'. Custom radii are also available greater than 5'.



For additional information, visit our website at [www.wondoors.com](http://www.wondoors.com)

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