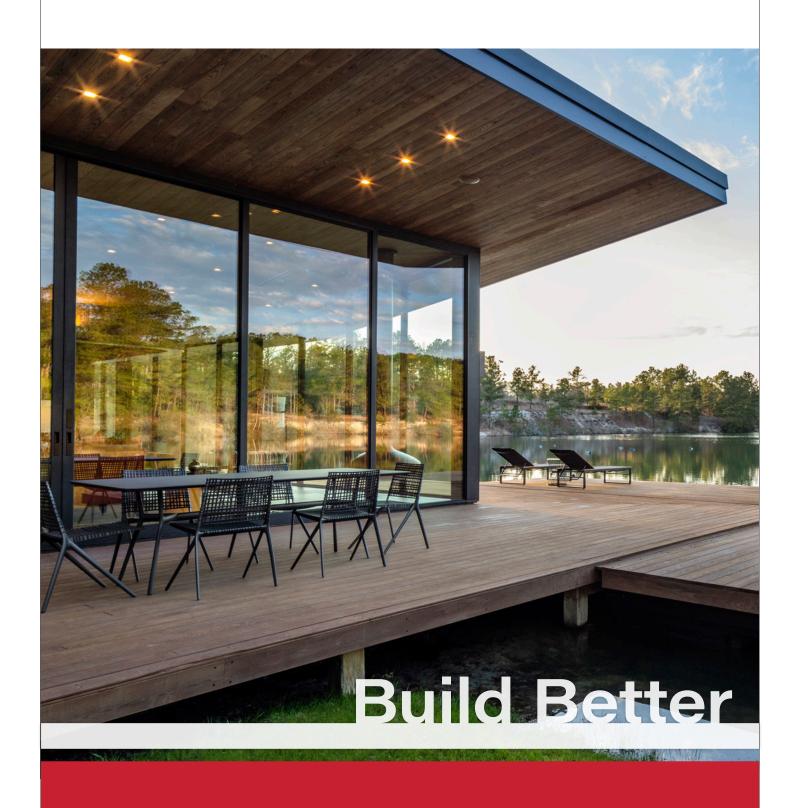
# **Product Data Sheets**





#### **PRODUCT DATA SHEETS**

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The Series 600 Multi-Slide Door features large, unobstructed rolling glass panels that stack or slide into pockets to create extra-wide openings for indoor-outdoor commercial and living spaces. It is available with panels up to 12 feet tall (or a maximum of 60 square feet). And even with extreme panel sizes, it is easy to operate, thanks to sealed stainless steel ball bearing rollers. The aluminum frame's clean lines, narrow profile, and high-quality anodized or painted finishes deliver a contemporary aesthetic that seamlessly blends into nearly any space.

#### **ENERGY EFFICIENCY**

A .36 U-value for standard low-E, argon-filled dual-pane glass from Cardinal IG gives the door premium energy efficiency. It is compliant with California's rigorous Title 24 requirements and can be customized in a variety of panel counts, configurations, and wall depths. The aluminum frame and panels are thermally broken to reduce heat and cold transfer. NFRC labeling is included to comply with energy code requirements.

#### **HARDWARE**

The frame's rollers are AAMA-certified and include a standard 1.81" size. Our optional 3" Monster Roller is capable of handling more than twice the weight of the largest panel. A hidden stainless steel multi-point lock secures the sliding panels.

#### **OPTIONS**

Sill options include a water-barrier sill, featuring a 1.5" interior leg and weep system to keep out water; a flush sill, which is best when ease of entry is more important than keeping out the elements; and the Thinline sill, which is ideal in situations where the continuation of flooring from the inside to the outside appears seamless. Handle options include a flush-mounted handle, which allows panels to slide past each other and stack flush or into a pocket. The premium handle features a minimal one-piece design and comfortable grip. Both handles have an optional keyed cylinder.

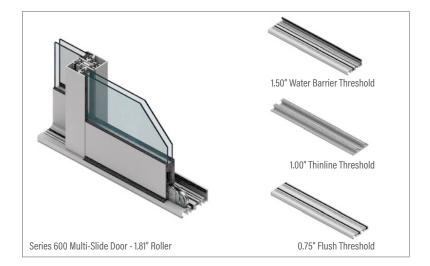
#### **FINISHES AND COLORS**

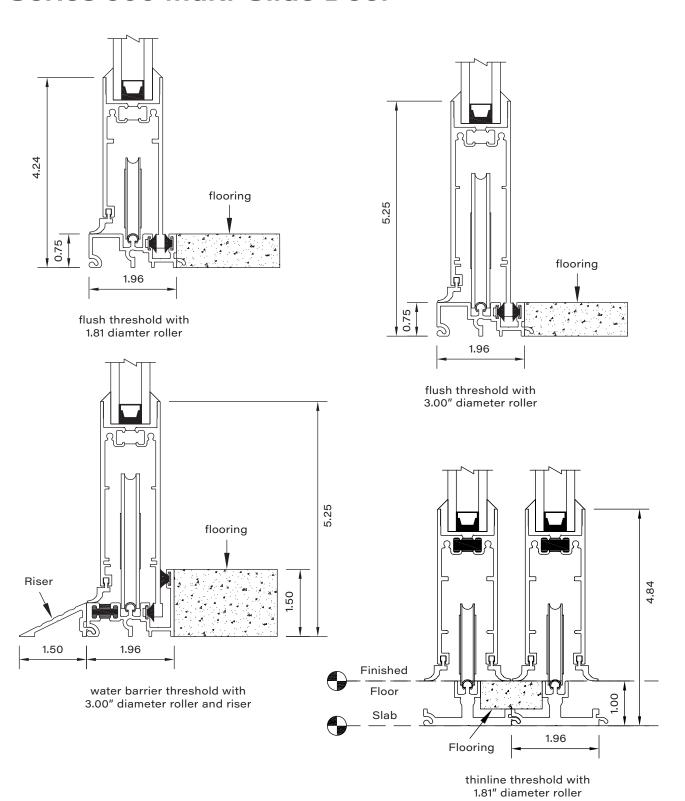
Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

#### **PERFORMANCE**

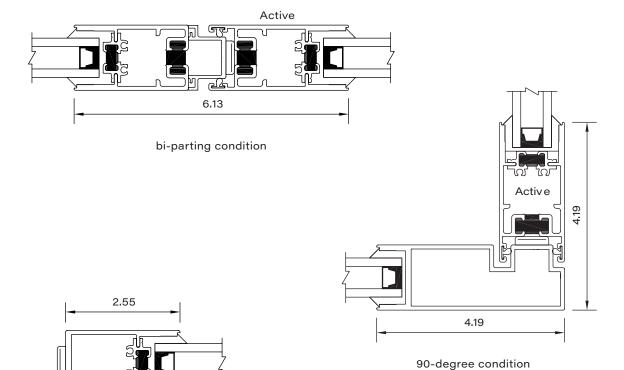
Frame Depth	1.98" Per Track
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	LC-PG25-120x96-SD
Test Configuration	120" x 96" P2X
Air Infiltration (Per ASTM E 283)	.30 cfm/sf @1.57 psf
CSA A440 Air	N/A
Water Resistance (Per ASTM E 547)	3.75 psf
Uniform Load Deflection (Per ASTM E 330)	25 psf
Uniform Load Structural (Per ASTM E 330)	37.5 psf
Forced Entry Resistance	ASTM F842 Type A Grade 10 CAWM 300 Type I
U-Factor (Per NFRC 100)*	0.36
CR (Per NFRC 500)*	43
CRF Frame (Per AAMA 1503)	32
	10 11 0 1

Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear

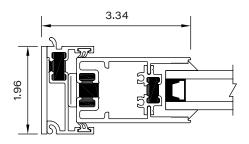






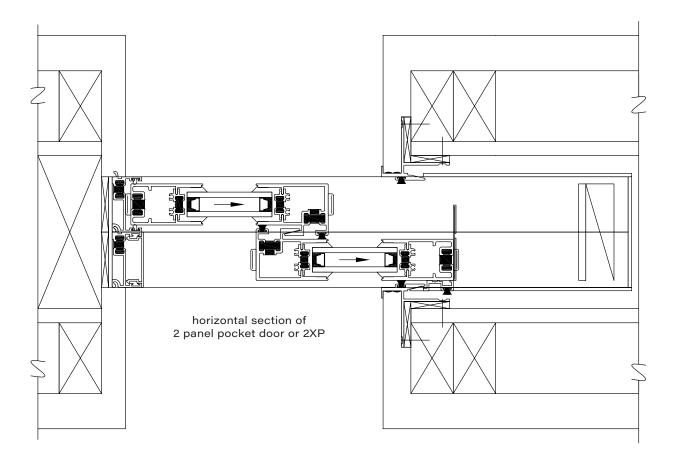


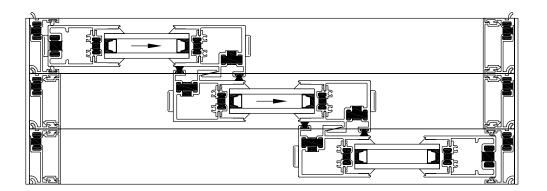
interlocking condition



fixed position

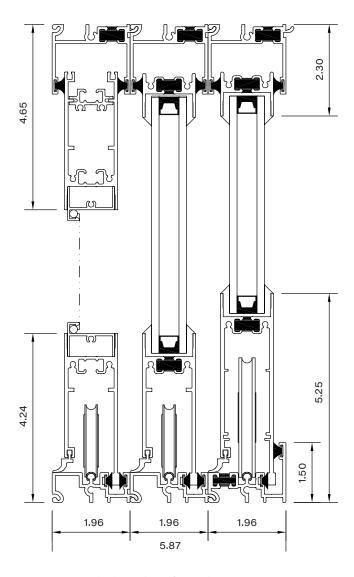




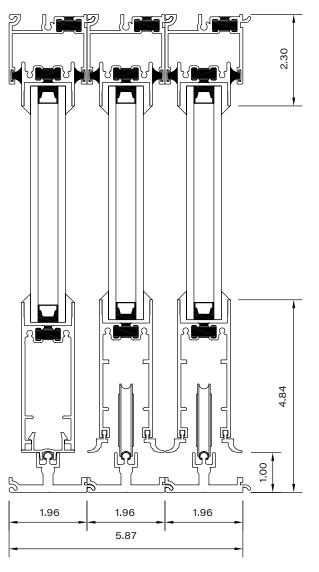


horizontal section of 3 panel stacking door or 2XO



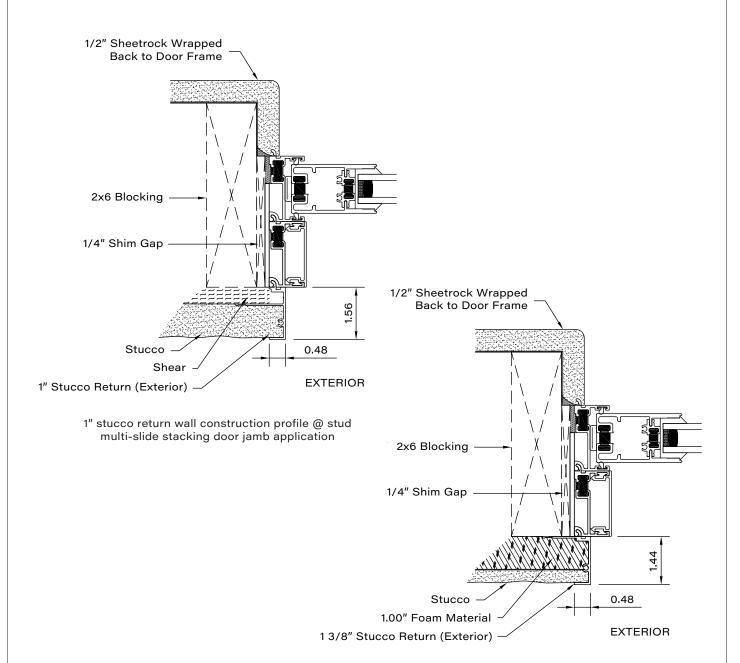


vertical section of exterior screen 1.81" diameter roller 3.00" diameter roller water barrier threshold



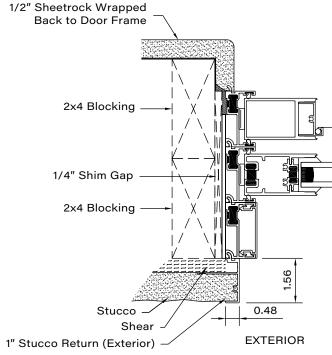
vertical section of thinline threshold with 1.81" diameter rollers



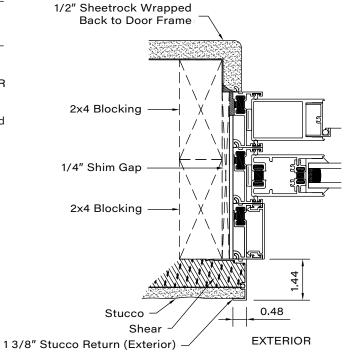


1.375" stucco return wall construction profile @ stud multi-slide stacking door jamb application





1" stucco return wall construction profile @ stud multi-slide stacking door jamb application



1.375" stucco return wall construction profile @ stud multi-slide stacking door jamb application



Dramatic views with expanded glass. The Series 300 Minimalist Multi-Slide Door offers innovative narrow 1.125" interlocks that provide a minimalist aesthetic with maximum natural light. Panel sizes up to 12 feet tall (maximum 70 square feet), fine lines, and energy efficient low-E, dual-paned glass offer a beautiful new way to minimize the boundaries between indoors and outdoors.

#### **ENERGY EFFICIENCY**

- Low-E, argon-filled dual-paned glass
- .40 U-value for water barrier sill
- .41 U-value for flush and thinline sill

#### **HARDWARE**

- 1.5" quad rollers
- Water-barrier sill
- Flush sill
- Thinline sill
- Flush-mounted handle

#### **OPTIONS**

Sill options include a water-barrier sill, featuring a 1.5" interior leg and weep system to keep out water; a flush sill, which is best when ease of entry is more important than keeping out the elements; and the Thinline sill, which is ideal in situations where the continuation of flooring from the inside to the outside appears seamless. Handle options include a flushmounted handle, which allows panels to slide past each other. The premium handle features a minimal one-piece design and comfortable grip. Both handles have an optional keyed cylinder.

#### **FINISHES AND COLORS**

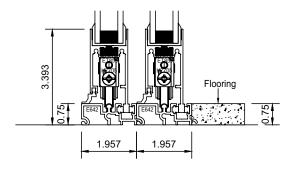
Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

#### **PERFORMANCE**

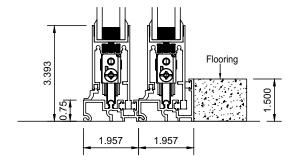
1.955" Per Track
LC-PG25-144" x 120"-SD
XXO
<0.3 cfm/ ft2 @ 1.57psf
<0.3 cfm/ ft2 @ 1.57psf
3.76 psf
2.09 inches
25psf
SGD Type A Grade 10
0.40 (water leg sill) 0.41 (flush/thinline sill)
35 (water leg sill) 32 (flush/thinline sill)
N/A

Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear

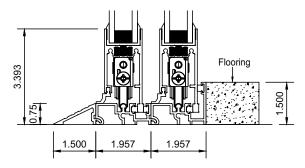




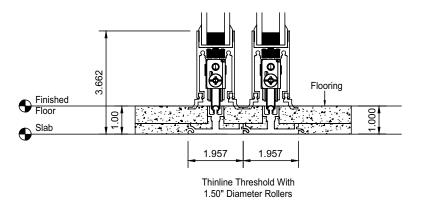
Flush Threshold With 1.50" Diameter Rollers



Water Barrier Threshold With 1.50" Diameter Rollers



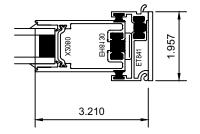
Water Barrier Threshold With 1.50" Diameter Rollers With Exterior Riser



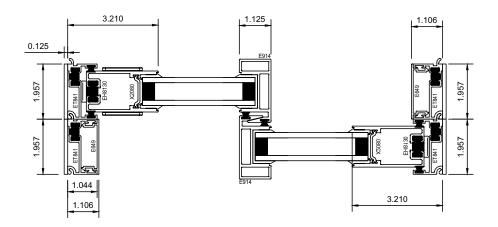




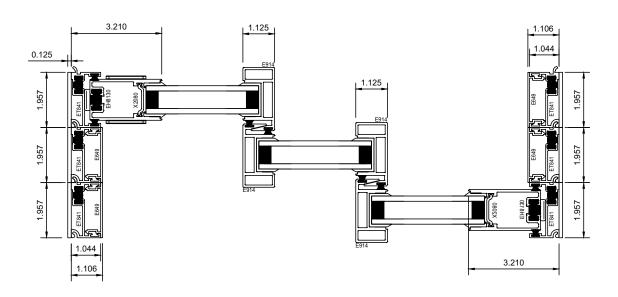
Interlock Condition



Fixed Panel / Jamb Condition

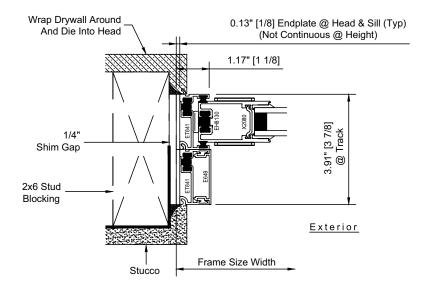


Horizontal section of 2 panel Stacking door or 1XO

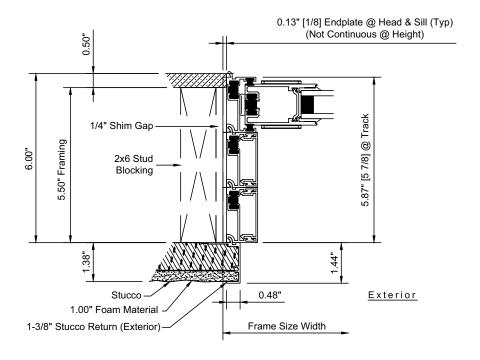


Horizontal section of 3 panel Stacking door or 2XO

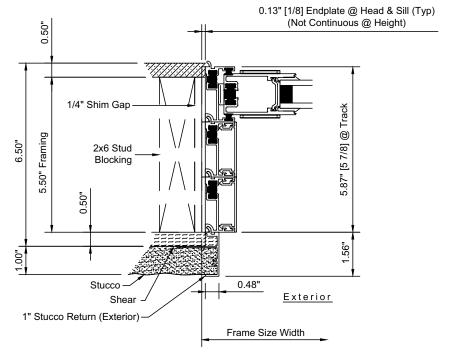




Lock Jamb Profile - Wall Construction Profile at Stud Multi Slide Stacking Door - Jamb Application (2 Track)



1.375" Stucco Return - Wall Construction Profile at Stud Multi Slide Stacking Door - Jamb Application (3 Track)



1" Stucco Return - Wall Construction Profile at Stud Multi Slide Stacking Door - Jamb Application (3 Track)



### **Series 600 Sliding Glass Door**

The Series 600 Sliding Glass Door features large, unobstructed rolling glass panels that maximize natural daylight and views. Available with panels up to 12 feet tall (or a maximum of 60 square feet), in single opening and bi-parting configurations. It is easy to operate, thanks to sealed stainless steel ball bearing rollers, and the aluminum frame's clean lines, narrow profile, and high-quality anodized or painted finishes deliver a contemporary aesthetic that seamlessly blends into nearly any space.

#### **ENERGY EFFICIENCY**

A .41 U-value for standard low-E, argon-filled dual-pane glass from Cardinal IG gives the door premium energy efficiency. It is compliant with California's rigorous Title 24 requirements and can be customized in a variety of configurations. The aluminum frame and panels are thermally broken to reduce heat and cold transfer. NFRC labeling is included to comply with energy code requirements.

#### **HARDWARE**

The sealed stainless steel ball bearing rollers are AAMA-certified and include a standard 1.81" size. Our optional 3" Monster Roller is capable of handling more than twice the weight of the largest panel. A hidden stainless-steel multi-point lock secures the sliding panels.

#### **OPTIONS**

Sill options include a 1.5" or 1.75" water barrier height offering design flexibility with varying performance ratings. Handle options include a flush-mounted handle, for a clean aesthetic; the premium handle, featuring a minimal one-piece design and comfortable grip; and the contemporary handle, with its more angular appearance. Each handle has an optional keyed cylinder. An optional heavyduty aluminum frame panel screen provides optimal ventilation.

#### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

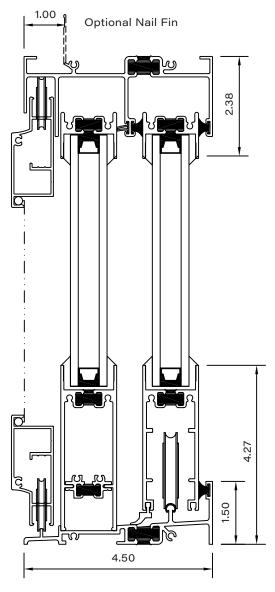
#### **PERFORMANCE**

Frame Depth	4 1/2"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	LC-PG30-144x96-SD
Test Configuration	144" x 96" OXO
Air Infiltration (Per ASTM E 283)	.26 cfm/sf @1.57 psf
CSA A440 Air	N/A
Water Resistance (Per ASTM E 547)	4.59 psf
Uniform Load Deflection (Per ASTM E 330)	30 psf
Uniform Load Structural (Per ASTM E 330)	45 psf
Forced Entry Resistance	ASTM F842 Type C Grade 10
U-Factor (Per NFRC 100)*	0.41
CR (Per NFRC 500)*	38
CRF Frame (Per AAMA 1503)	46

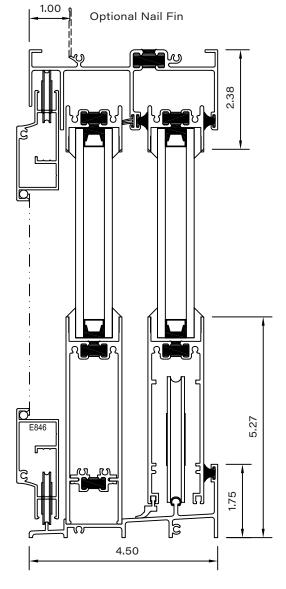
Actual values may vary depending on product specifications and configuration.  $*Glass\ Makeup = 1"\ OA\ E366/Argon/Clear$ 



# Series 600 Sliding Glass Door



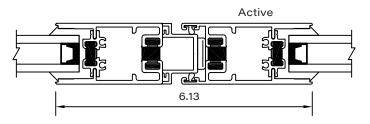
vertical section with 1.81" diameter rollers and 1.50" threshold



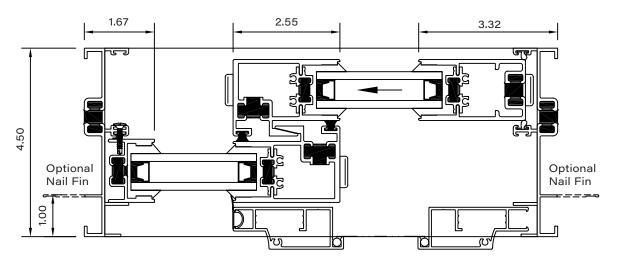
vertical section with 3.00" diameter rollers and 1.75" threshold



# Series 600 Sliding Glass Door



bi-parting condition



horizontal section OX



# Series 9550 Bi-Fold Door (Bottom Load)

The Series 9550 Bi-Fold Door from Western Window Systems is designed to smoothly stack and fold against side walls, creating a huge opening from corner to corner and connecting the inside with the outside. With both inswing and outswing capabilities, panels up to 42" wide and 144" tall, and countless configurations, you can unlock several creative possibilities.

#### **ENERGY EFFICIENCY**

- Low-E, argon-filled dual-paned glass
- . .33 U-value for floor load
- . .36 U-value for head load

#### **HARDWARE**

- Water-barrier sill
- Flush sill
- U-track
- Dallas handle
- Inactive lock handle
- D-shape pull handle

#### **OPTIONS**

Bottom-load sill tracks include the water-barrier sill (2.51" tall), which safeguards against water intrusion, and the flush sill (1.76" tall), when ease of entry is more important than climate performance. The door includes three high-quality handles: the Dallas handle, located on all active panels; a D-shaped pull handle, at the bifold's pivot points; and an inactive lock handle, at the door's pivot points, which secures the panels with steel pins at the head and sill. The Dallas handle has a keyed cylinder.

#### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

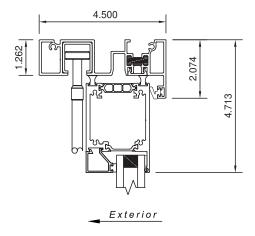
#### **PERFORMANCE**

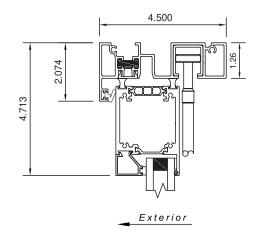
I LIII OIIWANCE	
Frame Depth	4.5"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	R-PG30-144x96-FLD
Test Configuration	1L-3R
Air Infiltration (Per ASTM E 283)	<0.3 cfm/ ft2 @ 1.57 psf
CSA A440 Air	<0.3 cfm/ ft2 @ 1.57 psf
Water Resistance (Per ASTM E 547)	4.59 psf
Uniform Load Deflection (Per ASTM E 330)	0.28"
Uniform Load Structural (Per ASTM E 330)	30psf
Forced Entry Resistance	SGD Type A Grade 10
U-Factor (Per NFRC 100)*	0.33
CR (Per NFRC 500)*	53
CRF Frame (Per AAMA 1503)	N/A

Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear



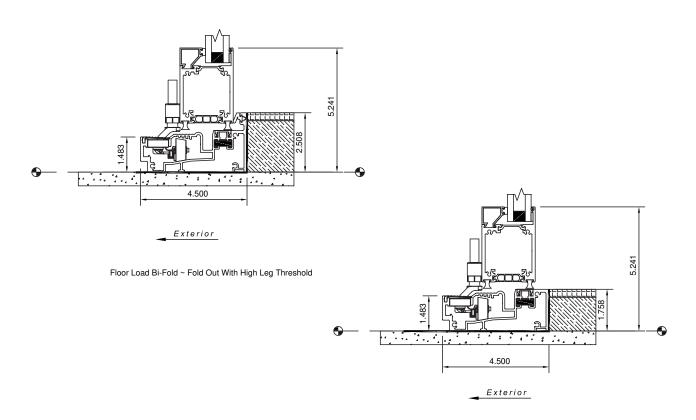
# Series 9550 Bi-Fold Door (Bottom Load)





Floor Load Bi-Fold Fold-Out Head

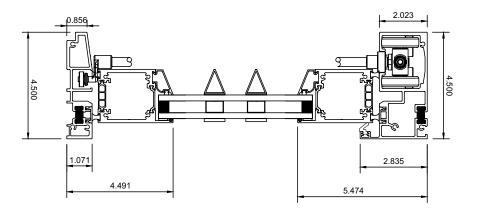
Floor Load Bi-Fold Fold-In Head

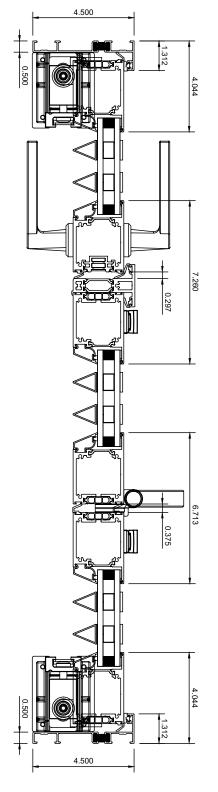


Floor Load Bi-Fold ~ Fold Out With Flush Threshold



# Series 9550 Bi-Fold Door (Bottom Load)







The Series 9550 Bi-Fold Door from Western Window Systems is designed to smoothly stack and fold against side walls, creating a huge opening from corner to corner and connecting the inside with the outside. With both inswing and outswing capabilities, panels up to 42" wide and 144" tall, and countless configurations, you can unlock several creative possibilities.

#### **ENERGY EFFICIENCY**

- Low-E, argon-filled dual-paned glass
- .33 U-value for floor load
- . .36 U-value for head load

#### **HARDWARE**

- Water-barrier sill
- Flush sill
- U-track
- Dallas handle
- Inactive lock handle
- D-shape pull handle

#### **OPTIONS**

When using top-hung sill tracks, the water-barrier sill is 1.82" and the flush sill is 1.07" tall. The door includes three high-quality handles: the Dallas handle, located on all active panels; a D-shaped pull handle, at the bi-fold's pivot points; and an inactive lock handle, at the door's pivot points, which secures the panels with steel pins at the head and sill. The Dallas handle has a keyed cylinder.

#### **FINISHES AND COLORS**

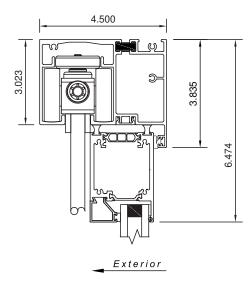
Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

#### **PERFORMANCE**

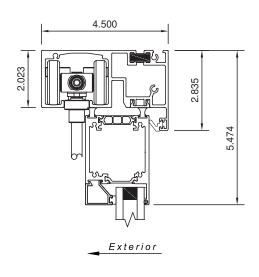
Frame Depth	4.5"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG30-144x96-FLD
Test Configuration	1L-3R
Air Infiltration (Per ASTM E 283)	<0.3 cfm/ ft2 @ 1.57 psf
CSA A440 Air	<0.3 cfm/ ft2 @ 1.57 psf
Water Resistance (Per ASTM E 547)	4.59 psf
Uniform Load Deflection (Per ASTM E 330)	0.22"
Uniform Load Structural (Per ASTM E 330)	30psf
Forced Entry Resistance	SGD Type A Grade 10
U-Factor (Per NFRC 100)*	0.36
CR (Per NFRC 500)*	52
CRF Frame (Per AAMA 1503)	N/A

Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear

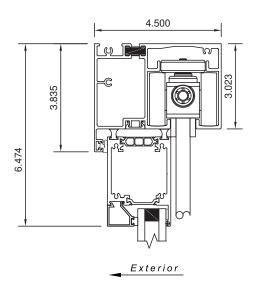




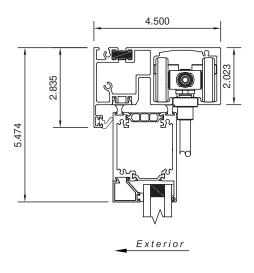
Heavy Duty Head Load Bi-Fold Fold-Out Head



Head Load Bi-Fold Fold-Out Head

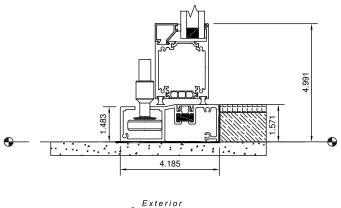


Heavy Duty Head Load Bi-Fold Fold-In Head

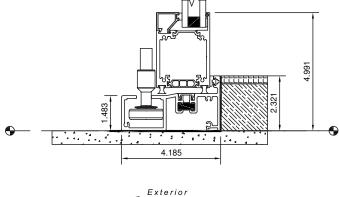


Head Load Bi-Fold Fold-In Head

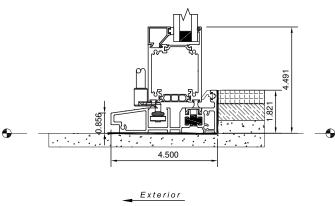




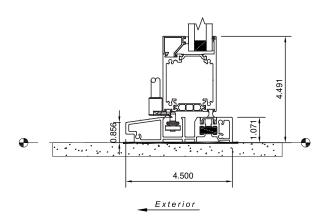
Heavy Duty Head Load Bi-Fold ~ Fold Out With Flush Threshold



Heavy Duty Head Load Bi-Fold ~ Fold Out With High Leg Threshold

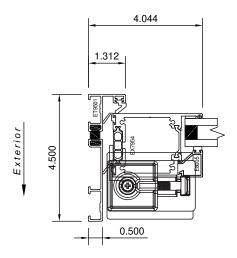


Head Load Bi-Fold Fold-Out High Leg Threshold

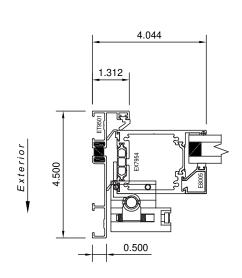


Head Load Bi-Fold Fold-Out Flush Threshold

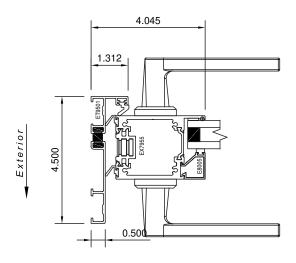




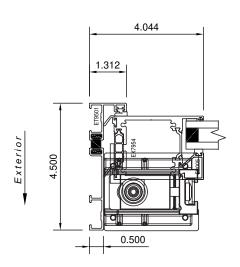
Head Load Bi-Fold ~ Fold Out With Equal Leg Jamb



Heavy Duty Head Load Bi-Fold  $\sim$  Fold Out With Flush Threshold

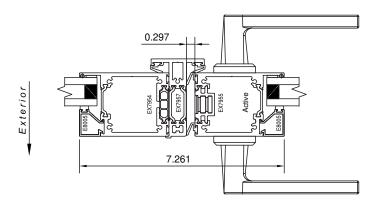


Head Load Bi-Fold ~ Fold Out - Active Lock Jamb



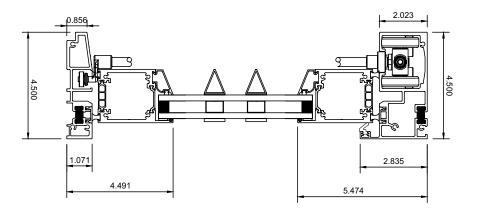
Heavy Duty Head Load Bi-Fold ~ Fold Out With Flush Threshold

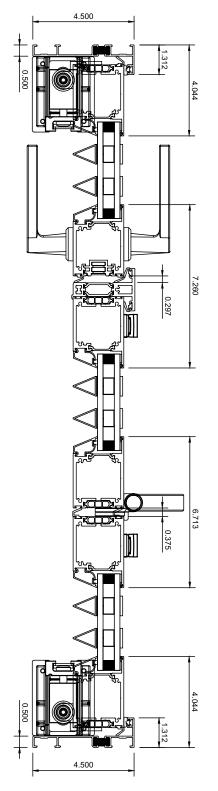




Head Load Bi-Fold ~ Fold Out - BiPart - Active Lock









# Series 900 Hinged Door (Swing-Out)

The Series 900 Hinged Door features a large glass panel that maximizes views and lets in natural light, as well as creating an impressive main entrance or clear interior passage, and is ideal to connect the indoors to a patio, deck, or balcony. A continuous hinge is strong enough to support panels as wide as five feet. Top and bottom rails of the door nest with the stiles to eliminate daylight at the corners. The door is available in single or double out-swing configurations and can be partnered with any of our window styles.

#### **ENERGY EFFICIENCY**

A .56 U-value for standard low-E, argon-filled dual-pane glass gives the door increased energy efficiency and is tested for air, water, and structural performance and is certified by the NFRC and AAMA. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. The aluminum frame is thermally broken to reduce heat and cold transfer.

#### **HARDWARE**

Contemporary lever sets are available in brushed nickel or black finish. On doors over eight feet tall, roller catches are utilized to pull the door tight.

#### **OPTIONS**

The standard threshold is 4.5" wide and features a 1" exterior step that protects against water penetration. The commercial threshold favors ease of entry over protection from the elements and is capable of meeting ADA requirements. Our premium handle features a minimal one-piece design. Lock options include the multi-point lock, for additional vertical strength; the single-point lock; and the Type C lock, a standard deadbolt.

#### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

#### **PERFORMANCE**

4 1/2"
R-PG20-39x96-SHD
39" x 96" X Swing-Out
0.10 cfm/sf @1.57 psf
A2
3.13 psf
20 psf
30 psf
AAMA 1304-02
0.56
28
49

Actual values may vary depending on product specifications and configuration.  $*Glass\ Makeup = 1"\ OA\ E366/Argon/Clear$ 



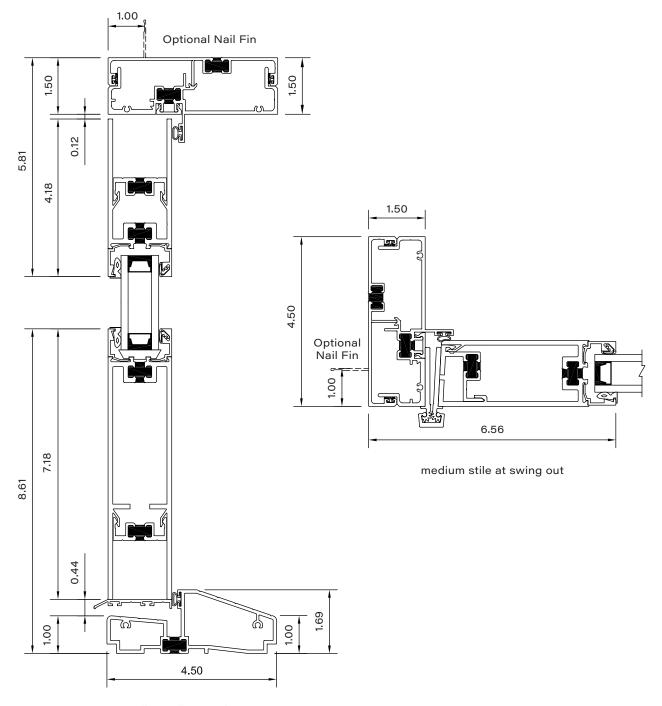


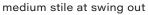


Series 900 Hinged Door Narrow Stile Thermally Broken HLSO



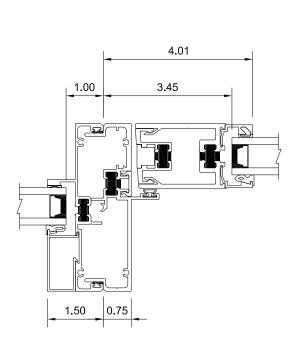
# Series 900 Hinged Door (Swing-Out)



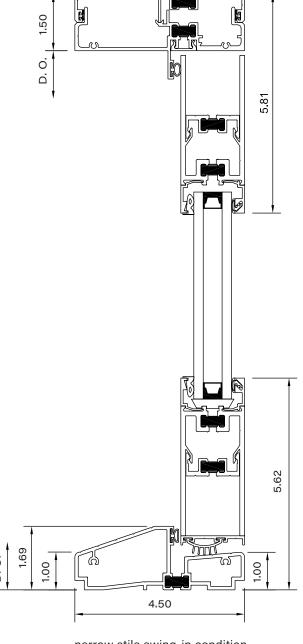




# Series 900 Hinged Door (Swing-Out)



narrow stile at swing out



Optional Nail Fin

narrow stile swing-in condition



### Series 900 Hinged Door (Swing-In)

The Series 900 Hinged Door features a large glass panel that maximizes views and lets in natural light, as well as creating an impressive main entrance or clear interior passage, and is ideal to connect the indoors to a patio, deck, or balcony. A continuous hinge is strong enough to support panels as wide as five feet. Top and bottom rails of the door nest with the stiles to eliminate daylight at the corners. The door is available in single or double in-swing configurations and can be partnered with any of our window styles.

#### **ENERGY EFFICIENCY**

A .56 U-value for standard low-E, argon-filled dual-pane glass gives the door increased energy efficiency. The Series 900 door is tested for air, water, and structural performance and is certified by the NFRC and AAMA. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. The aluminum frame is thermally broken to reduce heat and cold transfer.

#### **HARDWARE**

Contemporary lever sets are available in brushed nickel or black finish. On doors over eight feet tall, roller catches are utilized to pull the door tight.

#### **OPTIONS**

The standard threshold is 4.5" wide and features a 1.69" exterior step that helps to reduce air infiltration and water penetration. The commercial threshold favors ease of entry over protection from the elements and is capable of meeting ADA requirements. Our premium handle features a minimal one-piece design. Lock options include the multipoint lock, for additional vertical strength; the single-point lock; and the Type C lock, a standard deadbolt.

#### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

#### **PERFORMANCE**

Frame Depth	4 1/2"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	R-PG20-39x96-LW-SHD
Test Configuration	39" x 96" X Swing-In
Air Infiltration (Per ASTM E 283)	.12 cfm/sf @1.57 psf
CSA A440 Air	A2
Water Resistance (Per ASTM E 547)	0.00 psf
Uniform Load Deflection (Per ASTM E 330)	20 psf
Uniform Load Structural (Per ASTM E 330)	30 psf
Forced Entry Resistance	AAMA 1304-02
U-Factor (Per NFRC 100)*	0.56
CR (Per NFRC 500)*	28
CRF Frame (Per AAMA 1503)	49

Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear

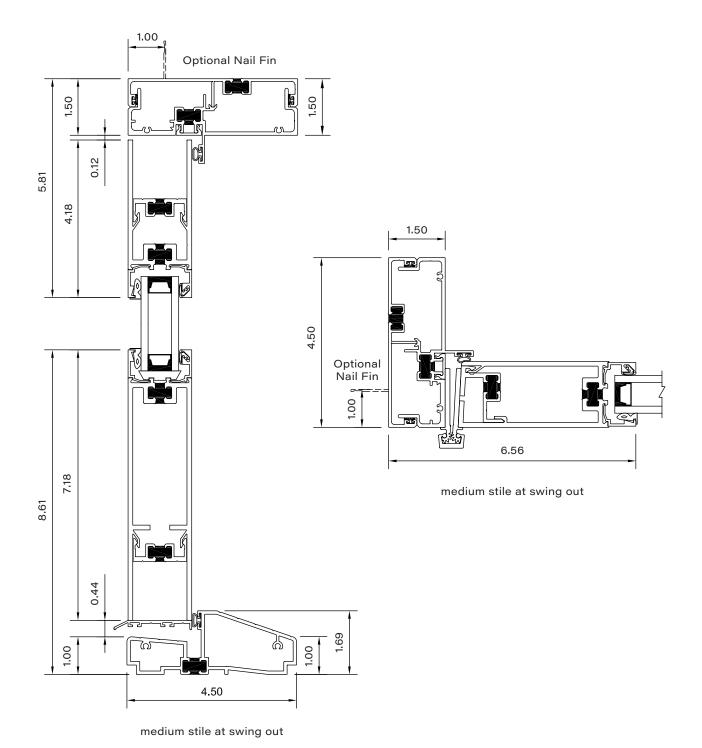


Series 900 Hinged Door Medium Stile Thermally Broken HLSI



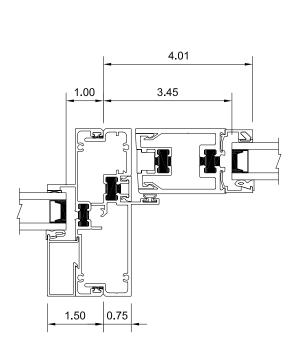
Series 900 Hinged Door Narrow Stile Non-Thermally Broken HLSI

# Series 900 Hinged Door (Swing-In)

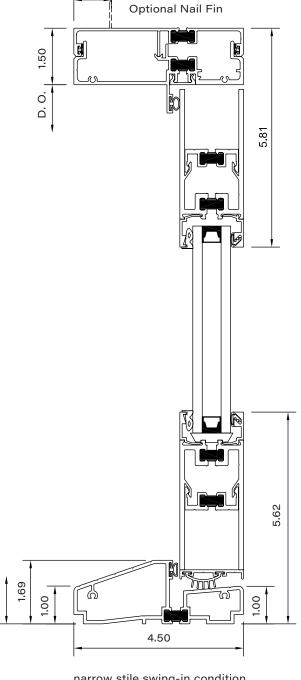




# Series 900 Hinged Door (Swing-In)



narrow stile at swing out



narrow stile swing-in condition



### Series 900 Hinged Door (Standard Panic Hardware)

The Series 900 Hinged Door features a large glass panel that maximizes views and lets in natural light, as well as creating an impressive main entrance, and is ideal to connect the indoors to a patio or deck. Top and bottom rails of the door nest with the stiles to eliminate daylight at the corners. The door is available in single or double out-swing configurations and comes pre-assembled with a standard panic bar, concealed overhead closer, 10" bottom rail, and 1/2" threshold for use in many commercial applications.

#### **ENERGY EFFICIENCY**

A .56 U-value for standard low-E, argon-filled dual-pane glass gives the door increased energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. The aluminum frame is thermally broken to reduce heat and cold transfer.

#### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

#### **PERFORMANCE**

Frame Depth	4 1/2"
U-Factor (Per NFRC 100)*	0.56
CR (Per NFRC 500)*	28
CRF Frame (Per AAMA 1503)	49

Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear

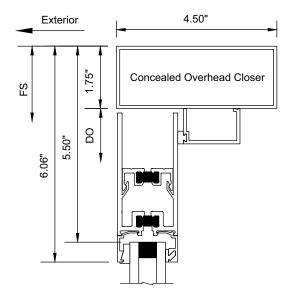


Series 900 Hinged Door – Thermally Broken – Swing Out – 10" Bottom Rail – Commercial Threshold – Equal Leg Block Frame – Panic Hardware

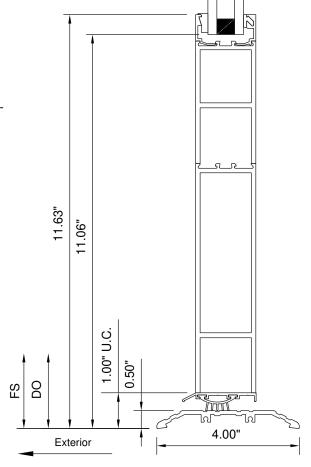


Series 900 Hinged Pair Door – Thermally Broken – Swing Out – 10" Bottom Rail – Commercial Threshold – Equal Leg Block Frame – Panic Hardware

### Series 900 Hinged Door (Standard Panic Hardware)



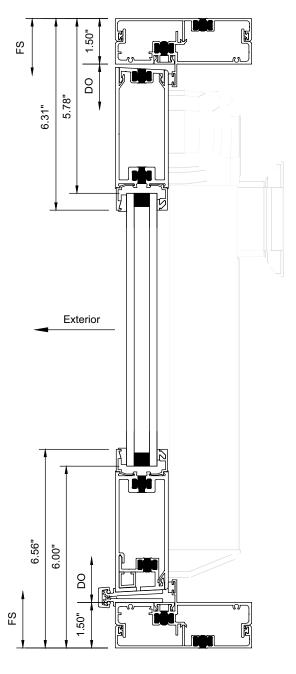
Series 900 Hinged Door - Swing Out - Medium Stile - Thermally Broken - Conceled Overhead Closer - Equal Leg Block Frame



Series 900 Hinged Door - Swing Out - 10" Bottom Rail - Commercial Threshold



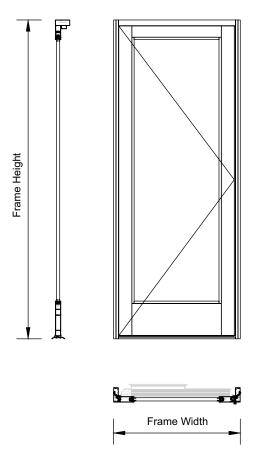
# Series 900 Hinged Door (Standard Panic Hardware)



Series 900 Hinged Door - Swing Out - Medium Stile - Thermally Broken - Equal Leg Block Frame



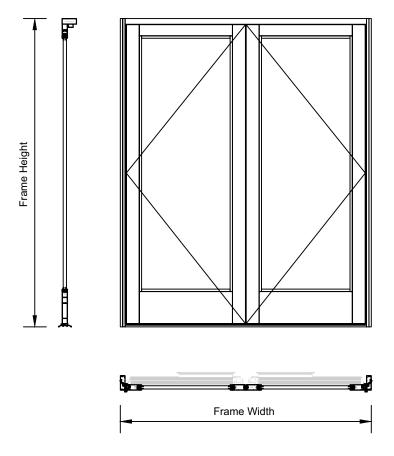
## Series 900 Hinged Door (Standard Panic Hardware)



Series 900 Hinged Door - Swing Out - Medium Stile -Thermally Broken - Conceled Overhead Closer - Equal Leg Block Frame



## Series 900 Hinged Door (Standard Panic Hardware)



Series 900 Hinged Pair Door - Swing Out - Medium Stile - Thermally Broken - Conceled Overhead Closer - Equal Leg Block Frame



## Series 980 Pivot Door

The Series 980 Pivot Door creates what may be the most impressive way to customize an entryway. Its wide glass panel and attractive aluminum frame connotes contemporary grandeur. For commercial use, a 4.5" frame depth is comparable to that of typical storefront systems. Even massive doors weighing up to 500 pounds open and close with ease. The door is available in in-swing or out-swing configurations and can be partnered with any of our window styles.

### **ENERGY EFFICIENCY**

A .68 U-value for standard low-E, argon-filled dual-pane glass gives the door good energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency.

## **HARDWARE**

Our custom pivot hardware supports the weight of the door on the bottom arm, creating less stress on the frame and allowing the door to swing smoothly and effortlessly. The Series 980 uses a low-profile commercial threshold capable of meeting ADA requirements. It includes a Type C lock, top and bottom roller catches to help pull the door in tight, and a 48" tall ladder-style pull handle.

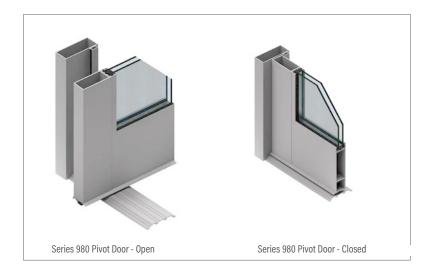
## **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

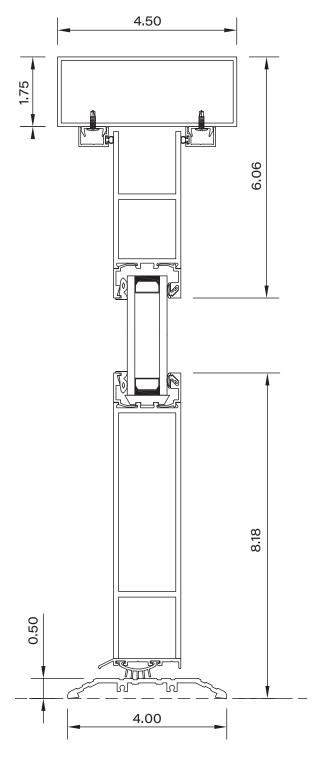
## **PERFORMANCE**

Frame Depth	4 1/2"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	N/A
Test Configuration	N/A
Air Infiltration (Per ASTM E 283)	N/A
CSA A440 Air	N/A
Water Resistance (Per ASTM E 547)	N/A
Uniform Load Deflection (Per ASTM E 330)	N/A
Uniform Load Structural (Per ASTM E 330)	N/A
Forced Entry Resistance	N/A
U-Factor (Per NFRC 100)*	0.68
CR (Per NFRC 500)*	13
CRF Frame (Per AAMA 1503)	27

Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear



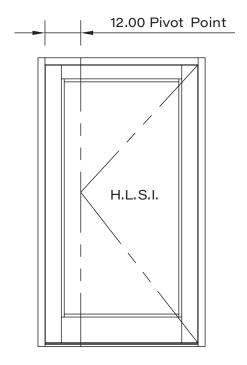
# **Series 980 Pivot Door**



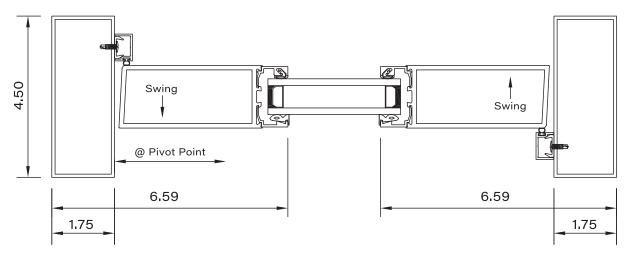
medium stile at swing in



# **Series 980 Pivot Door**



multiple pivot points are available



swing in - floor plan view



## Series 600 Window Wall

The Series 600 Window Wall provides you the opportunity to replace a traditional exterior wall with huge panels of low-E dual-pane glass. With its ability to integrate with various ventilating window styles and our hinged, folding and sliding doors, it's flexible as well as functional. Available up to 60 square feet in countless configurations, the window wall is tested for durability and features a high design pressure rating in most sizes. Narrow sightlines result in a clean, contemporary look.

### **ENERGY EFFICIENCY**

A .35 U-value for standard low-E, dualpane glass gives the door excellent energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. The classic aluminum frame is perfect for moderate climates and the thermally broken aluminum frame is designed for cold climates.

## **OPTIONS**

The standard base sill is .75" tall. An optional high base sill is 1.75" tall and is perfect for window walls that sit directly on a finished floor. The standard stop features a classic stepped profile with removable stops for ease of re-glazing, and a weeped glazing pocket. An optional flush stop provides the look of a typical storefront.

## **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

## **PERFORMANCE**

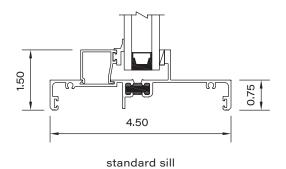
Frame Depth	4 1/2"
AAMA Product Designation (AAMA/WDMA/ CSA101/I.S.2/A440 Designation)	CW-PG50-60x120-FW
Test Configuration	60" x 120" O
Air Infiltration (Per ASTM E 283)	.00 cfm/sf @1.57 psf
CSA A440 Air	Fixed
Water Resistance (Per ASTM E 547)	7.5 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F842 Type D Grade 10 CAWM 301 Type V
U-Factor (Per NFRC 100)*	0.35
CR (Per NFRC 500)*	44
CRF Frame (Per AAMA 1503)	31

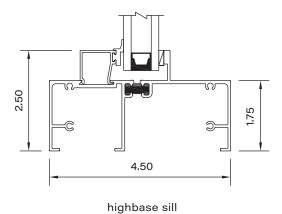
Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear

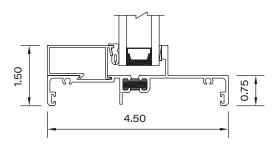




## Series 600 Window Wall

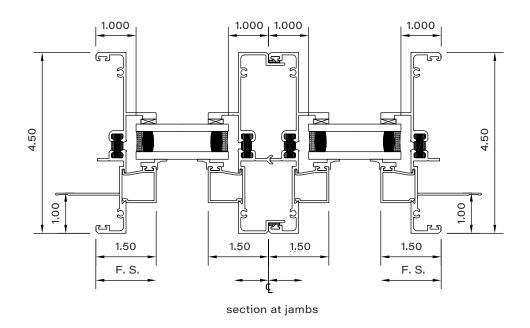


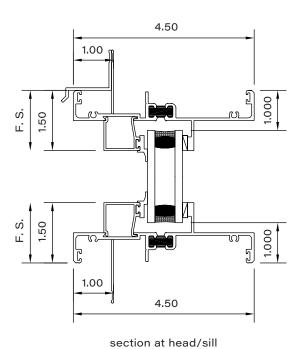




standard sill with flush stop

## Series 600 Window Wall







## **Series 670 Awning Window**

The Series 670 Awning Window hinges on the top and opens outward from the bottom. Typically wider than it is tall, the awning window is ideal for providing natural light and ventilation in modern configurations. It combines clean design and optimal performance with a commitment to superior craftsmanship. It is available in widths from 21" to 60" and heights from 16" to 48." The window is tested for air, water, and structural performance and is certified by the NFRC and AAMA.

### **ENERGY EFFICIENCY**

A .49 U-value for standard low-E, dual-pane glass gives the window excellent energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. The thermally broken aluminum frame provides an insulating barrier that increases energy performance.

### **FEATURES**

A roto handle and double scissor-arm operator enables easy operation. All fasteners are stainless steel, and the Series 670 Awning features a hidden multi-point locking system. Durable aluminum-frame screens complement the window's clean, contemporary style. Screen frames the window frame's color and are mounted to the interior.

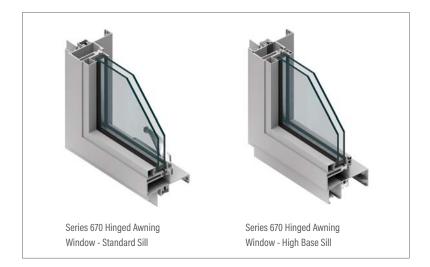
### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

## **PERFORMANCE**

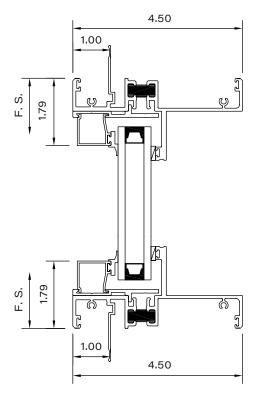
Frame Depth	4 1/2"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG50-48x36-AP
Test Configuration	48" x 36" X
Air Infiltration (Per ASTM E 283)	.10 cfm/sf @1.57 psf
CSA A440 Air	N/A
Water Resistance (Per ASTM E 547)	9.2 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F588 Type B and CAWM 301 Type II
U-Factor (Per NFRC 100)*	0.49
CR (Per NFRC 500)*	43
CRF Frame (Per AAMA 1503)	N/A

Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear

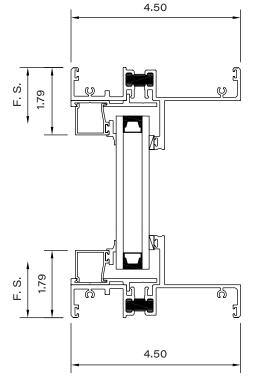




# **Series 670 Awning Window**



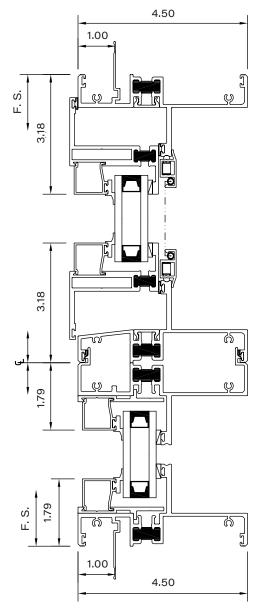
fixed vertical section 1" nail-fin frame



fixed vertical section equal leg block frame



# **Series 670 Awning Window**



hinged over fixed vertical section 1.00" nail-fin frame



## **Series 670 Casement Window**

The Series 670 Casement Window, which hinges on the side and swings outward to the left or right, combines clean design and optimal performance with a commitment to superior craftsmanship. Designed with a 4.5" frame depth, it can be integrated with our hinged doors, sliding doors, and fixed window walls for maximum views and ventilation. It is available in widths from 16" to 42" and heights from 16" to 120." The window is tested for air, water, and structural performance and is certified by the NFRC and AAMA.

## **ENERGY EFFICIENCY**

A .48 U-value for standard low-E, dual-pane glass gives the window excellent energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. The thermally broken aluminum frame provides an insulating barrier that increases energy performance.

### **FEATURES**

Butt hinges and a roto operator enable easy operation. All fasteners are stainless steel, and the Series 670 Casement features a hidden multi-point locking system. Durable aluminum-frame screens complement the window's clean, contemporary style. Screen frames match the window frame's color and are mounted to the interior.

## **PUSH-OUT OPTION**

The Series 670 Push-Out Casement opens easily with the turn of the handle and a light push. Stainless steel four-bar hinges with an adjustable tensioning device keep the sash in place when open. It is available in widths from 16" to 36" and heights from 16" to 72".

## **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

### **PERFORMANCE**

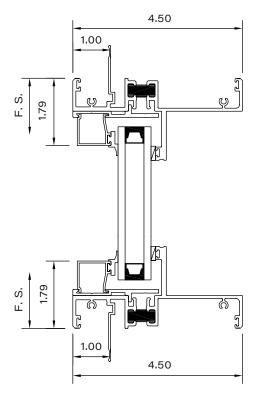
Frame Depth	4 1/2"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG50-36x60-C
Test Configuration	36" x 60" X
Air Infiltration (Per ASTM E 283)	.04 cfm/sf @1.57 psf
CSA A440 Air	N/A
Water Resistance (Per ASTM E 547)	9.2 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F588 Type B Grade 10 and CAWM 301 Type II
U-Factor (Per NFRC 100)*	0.48
CR (Per NFRC 500)*	43
CRF Frame (Per AAMA 1503)	56

Actual values may vary depending on product specifications and configuration.  $*Glass\ Makeup = 1"\ OA\ E366/Argon/Clear$ 

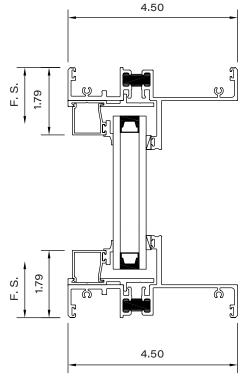




## **Series 670 Casement Window**



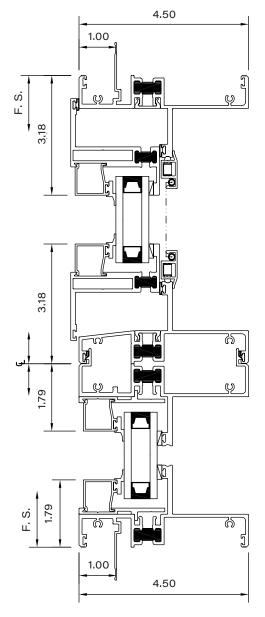
fixed vertical section 1" nail-fin frame



fixed vertical section equal leg block frame



## **Series 670 Casement Window**



hinged over fixed vertical section 1.00" nail-fin frame



## **Series 670 Hopper Window**

The Series 670 Hopper Window hinges on the bottom and opens inward from the top. Typically wider than it is tall, the hopper window is ideal for providing natural light and ventilation to areas where there is limited space for window to open outwardly. It combines clean design and optimal performance with a commitment to superior craftsmanship. It is available in widths from 16" to 60" and heights from 16" to 48." The window is tested for air, water, and structural performance and is certified by the NFRC and AAMA.

### **ENERGY EFFICIENCY**

A .48 U-value for standard low-E, dual-pane glass gives the window excellent energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. The thermally broken aluminum frame provides an insulating barrier that increases energy performance.

### **FEATURES**

Depending on the size and placement, the hopper is available with pawl handle or ring-pull latch with an extension pole. All fasteners are stainless steel. Durable aluminum-frame screens complement the window's clean, contemporary style. Screen frames match the window frame's color and are mounted to the exterior.

## **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

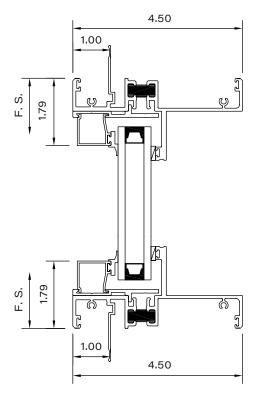
### **PERFORMANCE**

Frame Depth	4 1/2"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	LC-PG25-48x36-AP
Test Configuration	48" x 36" X
Air Infiltration (Per ASTM E 283)	.00 cfm/sf @1.57 psf
CSA A440 Air	N/A
Water Resistance (Per ASTM E 547)	9.2 psf
Uniform Load Deflection (Per ASTM E 330)	25 psf
Uniform Load Structural (Per ASTM E 330)	37.5 psf
Forced Entry Resistance	ASTM F588 Type B and CAWM 301 Type II
U-Factor (Per NFRC 100)*	0.48
CR (Per NFRC 500)*	37
CRF Frame (Per AAMA 1503)	52

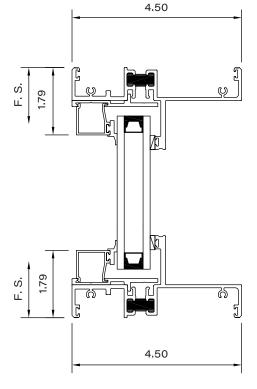
Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear



# **Series 670 Hopper Window**



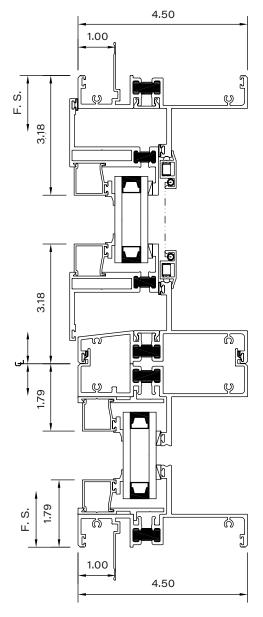
fixed vertical section 1" nail-fin frame



fixed vertical section equal leg block frame



# Series 670 Hopper Window



hinged over fixed vertical section 1.00" nail-fin frame



## Series 610 Single-Hung Window

The Series 610 Single-Hung Window features a fixed top sash and vertically sliding bottom sash for ventilation. The Series 610 offers a design pressure rating for commercial applications such as luxury hotels and resorts, office spaces, and multifamily housing. Designed with a 4.5" frame depth, it can be integrated with our hinged doors, sliding doors, and fixed window walls for maximum views and ventilation. It is available with a maximum vent size of 48" in width and 36" in height and frame height up to 96". The window is tested for air, water, and structural performance and is certified by the NFRC and AAMA.

### **ENERGY EFFICIENCY**

A .49 U-value for standard low-E, dual-pane glass gives the window excellent energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. The thermally broken aluminum frame provides an insulating barrier that increases energy performance.

### **FEATURES**

The single-hung window can be mulled to most of our product lines. This male/female mulling feature is unique in aluminum fenestration products, and it eliminates the need for operable inserts while maximizing glass and narrowing sightlines. Spiral balancers provide better adjustability and smoother operation. A T-lock engages an integrated strike in the frame's meeting rail. Durable aluminum-frame screens complement the window's clean, contemporary style. Screen frames match the window frame's color.

## **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

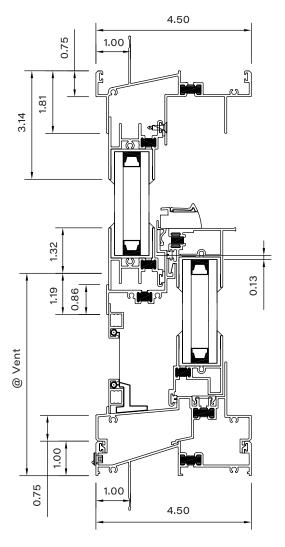
### **PERFORMANCE**

Frame Depth	4 1/2"
AAMA Product Designation (AAMA/WDMA/ CSA101/I.S.2/A440 Designation)	LC-PG50-48x76-H
Test Configuration	48" x 76" O/X
Air Infiltration (Per ASTM E 283)	.25 cfm/sf @1.57 psf
CSA A440 Air	N/A
Water Resistance (Per ASTM E 547)	7.5 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F588 Type A Grade 10 and CAWM 301 Type I
U-Factor (Per NFRC 100)*	0.49
CR (Per NFRC 500)*	34
CRF Frame (Per AAMA 1503)	N/A

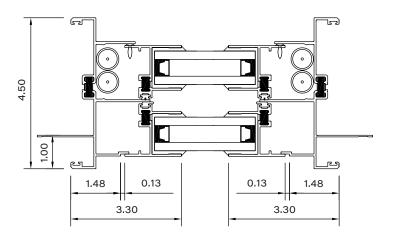
Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear



# Series 610 Single-Hung Window



vertical section single hung 1.00" nail-fin frame



horizontal section single hung 1.00" nail-fin frame



## **Series 620 Sliding Window**

The Series 620 Sliding Window features one or two sliding sash in XO, OX, XX and OXO configurations. The Series 620 offers a design pressure rating for commercial applications such as luxury hotels and resorts, office spaces, and multi-family housing. Designed with a 4.5" frame depth, it can be integrated with our hinged doors, sliding doors, and fixed window walls for maximum views and ventilation. The window is tested for air, water, and structural performance and is certified by the NFRC and AAMA.

## **ENERGY EFFICIENCY**

A .45 U-value for standard low-E, dual-pane glass gives the window excellent energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. The thermally broken aluminum frame provides an insulating barrier that increases energy performance.

### **FEATURES**

The sliding window can be mulled to most of our product lines. This male/female mulling feature is unique in aluminum fenestration products, and it eliminates the need for operable inserts while maximizing glass and narrowing sightlines. A T-lock engages an integrated strike in the frame's interlock. Durable aluminum-frame screens complement the window's clean, contemporary style. Screen frames match the window frame's color.

## **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

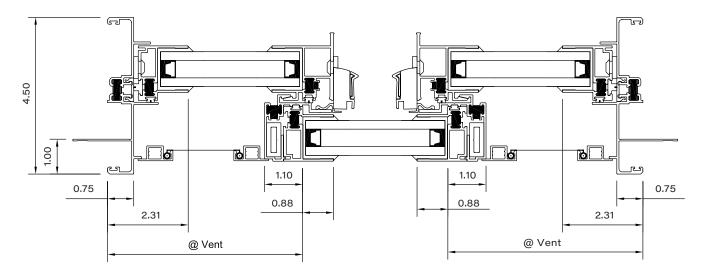
## **PERFORMANCE**

Frame Depth	4 1/2"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	LC-PG50- 72x108-HS
Test Configuration	72" x 108" OX/O
Air Infiltration (Per ASTM E 283)	.28 cfm/sf @1.57 psf
CSA A440 Air	N/A
Water Resistance (Per ASTM E 547)	7.5 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F588 Type A Grade 10 and CAWM 301 Type I
U-Factor (Per NFRC 100)*	0.45
CR (Per NFRC 500)*	36
CRF Frame (Per AAMA 1503)	N/A

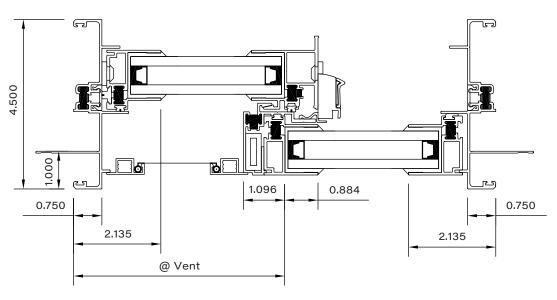
Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear



# **Series 620 Sliding Window**



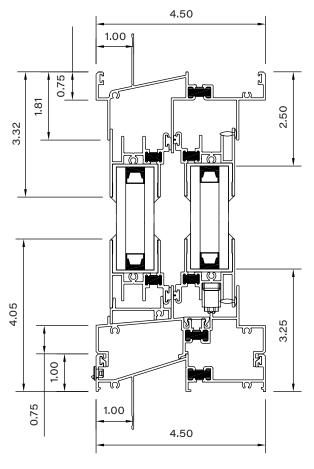
horizontal section XOX slider 1.00" nail-fin frame



horizontal section XO slider 1.00" nail-fin frame



# **Series 620 Sliding Window**



vertical section sliding window 1.00" nail-fin frame

The Series 7600 Multi-Slide Door features large, unobstructed rolling glass panels that stack or slide into pockets to create extra-wide openings for indoor-outdoor commercial and living spaces. It is available with panels up to 15 feet tall in many applications. And even with extreme panel sizes, it is easy to operate, thanks to sealed stainless steel ball bearing rollers. The aluminum frame's clean lines, narrow profile, and high-quality anodized or painted finishes deliver a contemporary aesthetic that seamlessly blends into nearly any space.

### **ENERGY EFFICIENCY**

A .30 U-value for standard low-E, argon-filled dual-pane glass from Cardinal IG gives the door premium energy efficiency. It is compliant with California's rigorous Title 24 requirements and can be customized in a variety of panel counts, configurations, and wall depths. The aluminum frame and panels are thermally broken to reduce heat and cold transfer. NFRC labeling is included to comply with energy code requirements.

### **HARDWARE**

The sealed stainless steel ball bearing rollers are AAMA-certified and include a standard 1.81" size. Our optional Quad-Zilla rollers are capable of handling extreme panel sizes and heavy glass types. A hidden stainless steel multi-point lock secures the sliding panels.

## **OPTIONS**

Sill options include a 2" or 2.6" water barrier height offering design flexibility with varying performance ratings; a flush sill, which is best when ease of entry is more important than keeping out the elements; and the Thinline sill, which is ideal in situations where the continuation of flooring from the inside to the outside appears seamless. Handle options include a flush-mounted handle, which allows panels to slide past each other and stack flush or into a pocket. The contemporary handle features a minimal one-piece design and comfortable grip. Both handles have an optional keyed cylinder.

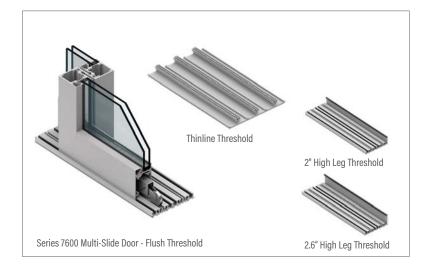
## **FINISHES AND COLORS**

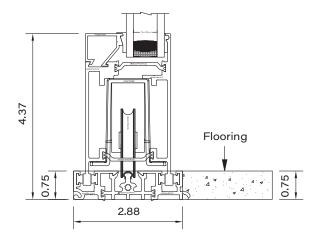
Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

### **PERFORMANCE**

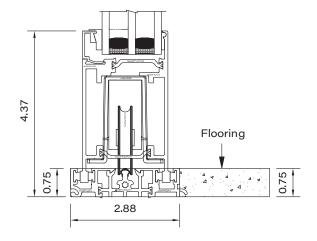
Frame Depth	2.87" Per Track
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	LC-PG50- 144x120-SD
Test Configuration	144" x 120" XXO
Air Infiltration (Per ASTM E 283)	.24 cfm/sf @1.57 psf
CSA A440 Air	A2
Water Resistance (Per ASTM E 547)	8.0 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F842 Type B Grade 10
U-Factor (Per NFRC 100)*	0.30
CR (Per NFRC 500)*	57
CRF Frame (Per AAMA 1503)	69

Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear

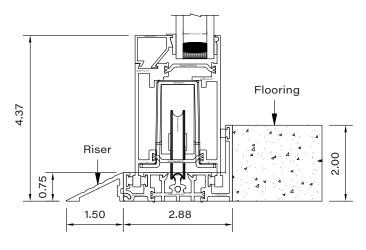




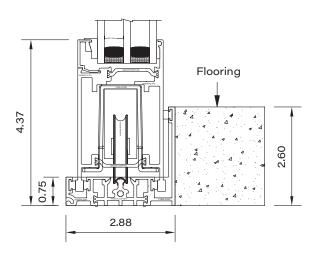
flush threshold with tandem, Quad-Zilla, and dual-pane glass



flush threshold with tandem, Quad-Zilla, and triple-pane glass

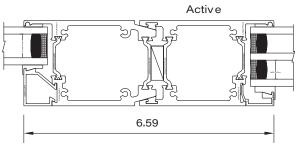


2" threshold with tandem and Quad-Zilla

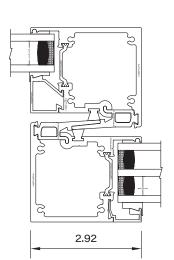


high-performance 2.6" threshold with tandem and Quad-Zilla

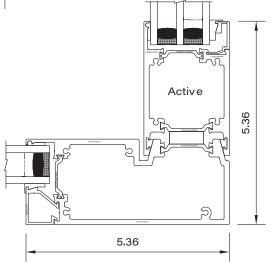




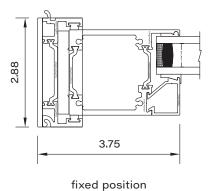
bi-parting condition



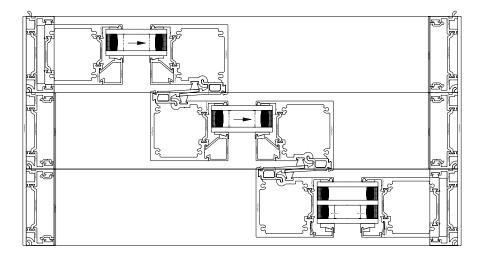
interlocking condition



90-degree condition

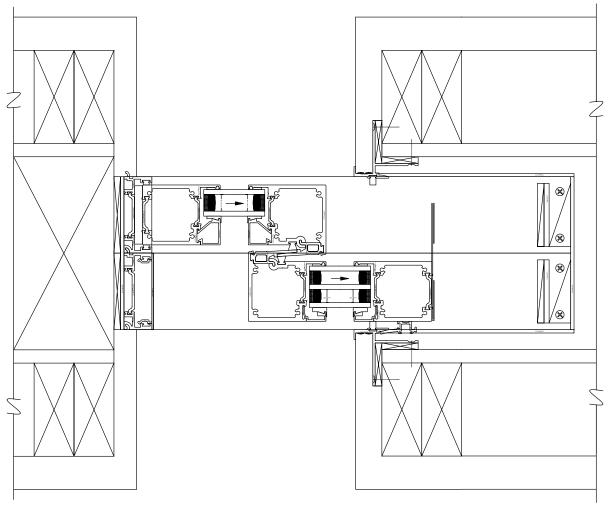






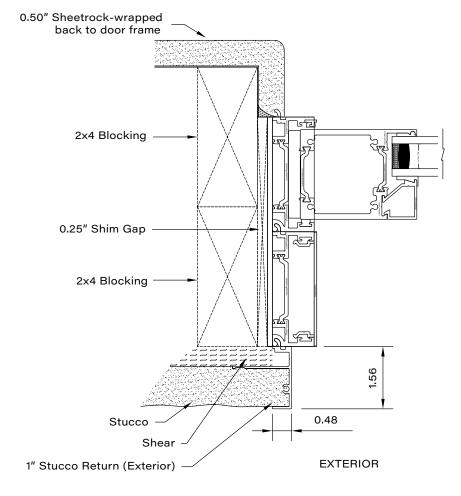
horizontal section of 3-panel stacking door or 2XO





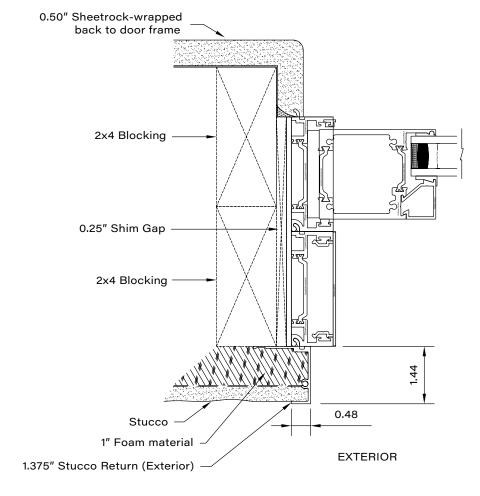
horizontal section of 2-panel pocket door or 2XP





1" stucco return wall construction profile @ stud multi-slide door jamb application





1.375" stucco return wall construction profile @ stud multi-slide door jamb application



The Series 7650 Sliding Glass Door features large, unobstructed energy efficient rolling glass panels that maximize natural daylight and views. Available with panels up to 15 feet tall in many applications and in single opening or bi-parting configurations. It is easy to operate, thanks to sealed stainless steel ball bearing rollers, and the aluminum frame's clean lines, narrow profile, and high-quality anodized or painted finishes deliver a contemporary aesthetic that seamlessly blends into nearly any space.

### **ENERGY EFFICIENCY**

A .30 U-value for standard low-E, argon-filled dual-pane glass and a .19 U-value for high-performance triple-pane glass from Cardinal IG gives the door premium energy efficiency. It is compliant with California's rigorous Title 24 requirements and the glass can be customized in a variety of coatings, tints, and thicknesses and offers options such as laminated glass for impact and sound control, solar- and glare-control glass, and enhanced winter performance glass. The aluminum frame is thermally broken to reduce heat and cold transfer. NFRC labeling is included to comply with energy code requirements.

### **HARDWARE**

The sealed stainless steel ball bearing rollers are AAMA-certified and include a standard 1.81" size. Our optional Quad-Zilla roller is capable of handling extreme panel sizes and heavy glass types. A hidden stainless steel multi-point lock secures the sliding panels.

## **OPTIONS**

Sill options include a water-barrier sill, featuring a 1.5" interior leg and weep system to keep out water. Taller 2" and 2.6" sills offer increased effectiveness against the elements and a performance rating of DP50. A flush sill option is also available. Handle options include a flush-mounted handle, for a clean aesthetic, and the contemporary handle, with its angular appearance. Each handle has an optional keyed cylinder. An optional heavy-duty aluminum frame panel screen provides optimal ventilation.

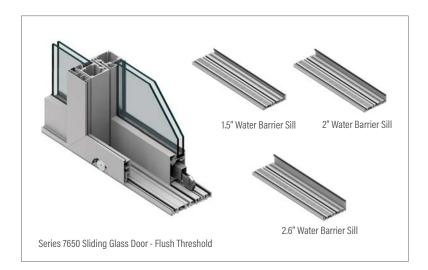
### **FINISHES AND COLORS**

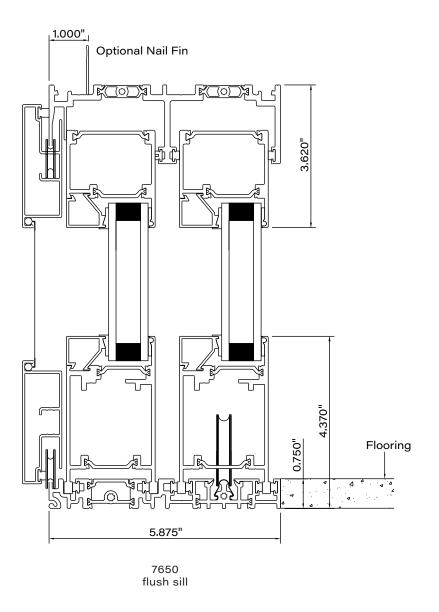
Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split painted finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

### **PERFORMANCE**

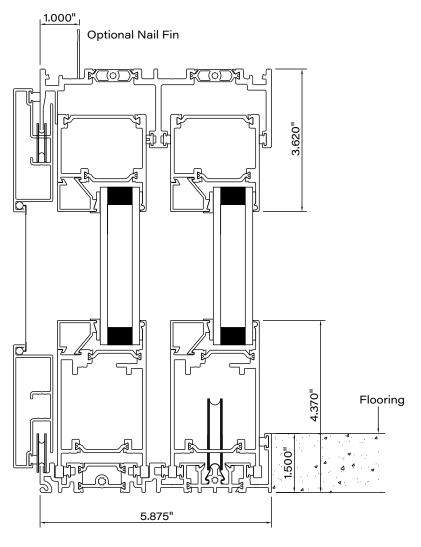
Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	LC-PG50-144x120-SD
Test Configuration	144" x 120" OXO
Air Infiltration (Per ASTM E 283)	.15 cfm/sf @1.57 psf
CSA A440 Air	A2
Water Resistance (Per ASTM E 547)	8.0 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F842 Type B Grade 10
U-Factor (Per NFRC 100)*	0.30
CR (Per NFRC 500)*	57
CRF Frame (Per AAMA 1503)	71

Actual values may vary depending on product specifications and configuration.  $*Glass\ Makeup = 1"\ OA\ E366/Argon/Clear$ 

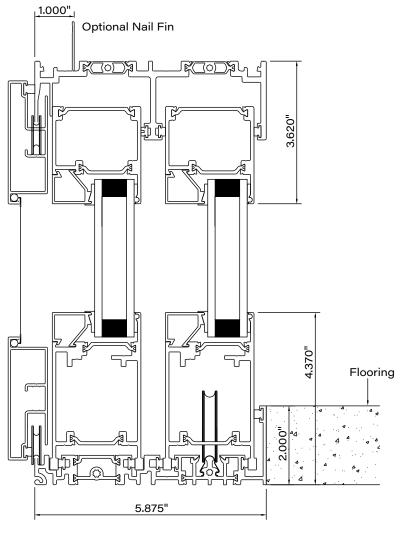






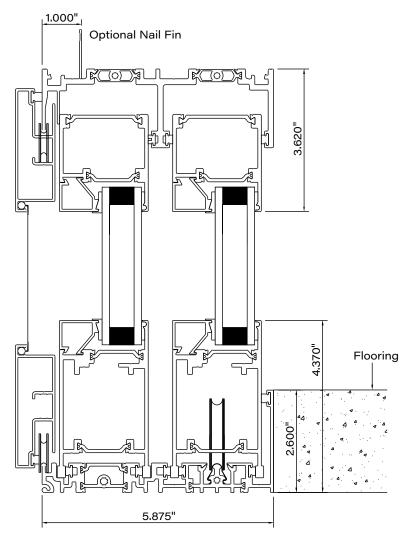


7650 1.5" water barrier sill

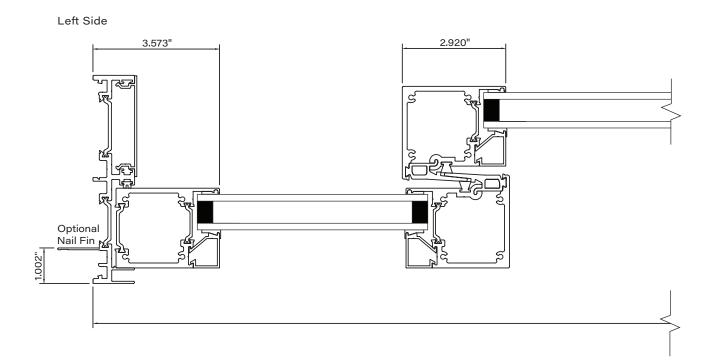


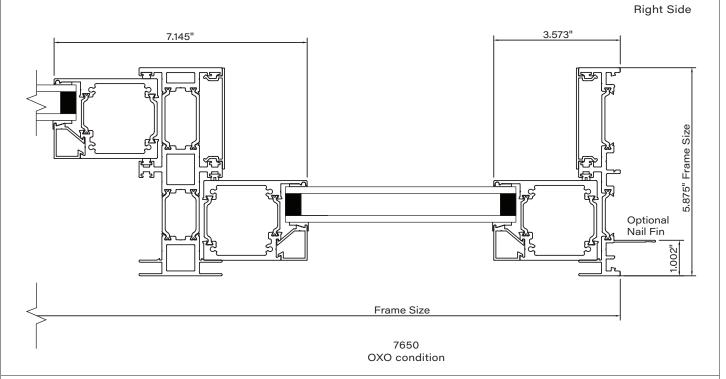
7650 2" water barrier sill



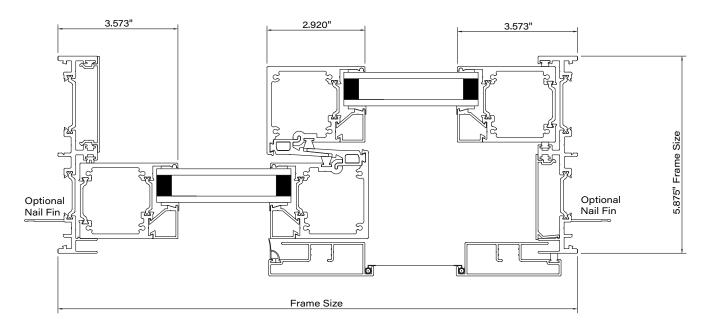


7650 2.6" water barrier sill

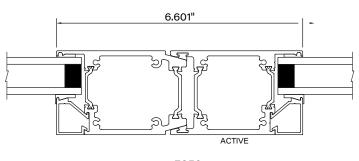








7650 XO condition



7650 OXXO condition



The Series 7950 Bi-Fold Door features large glass panels that smoothly fold and stack against side walls, creating extra-wide openings for indoor-outdoor commercial and living spaces. Convenient interior or exterior folding configurations and optional swinging panels make access simple when you don't want to open the entire bi-fold system. Even with extreme panel sizes, it is easy to operate, thanks to sealed stainless steel ball bearing rollers. For strength against the elements, the door delivers a DP50 rating and is STC-rated for acoustic performance. The Series 7950 can be designed as a bi-fold window or door system in heights up to 12 feet in select configurations incorporating heavy-duty hardware.

#### **ENERGY EFFICIENCY**

A .30 U-value for standard low-E, argon-filled dual-pane glass from Cardinal IG gives the door excellent energy efficiency. An aluminum extrusion utilizing Insulbar technology further improves energy performance. The door is compliant with California's rigorous Title 24 requirements and can be customized in a variety of panel counts and configurations. The aluminum frame and panels are thermally broken to reduce heat and cold transfer. NFRC labeling is included to comply with energy code requirements.

#### **HARDWARE**

Stainless steel head load carriers and hinges are available in standard and heavy-duty capacities for extreme panel sizes and heavy glass types. A hidden stainless steel multipoint lock secures the folding panels.

### **OPTIONS**

Top-load floor tracks come standard with the 2"-tall water-barrier sill, which safeguards against water intrusion. At just 0.958" tall, the optional flush sill lines up with most interior flooring. An optional U-track allows for a flush transition from room to room. The door includes three high-quality handles: the Dallas handle, located on all active panels; a D-shaped pull handle, at the bi-fold's pivot points; and an inactive lock handle, at the door's pivot points, which secures the panels with steel pins at the head and sill. The Dallas handle has a keyed cylinder.

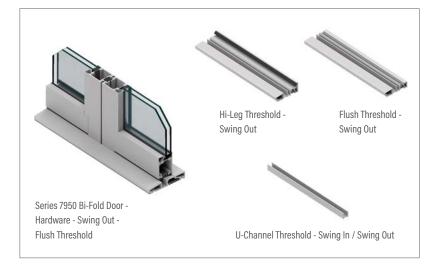
#### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

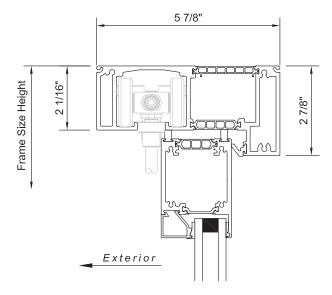
#### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	PG50- 144x96-SP
Test Configuration	144" x 96" 1L3R E3 Swing Out
Air Infiltration (Per ASTM E 283)	.08 cfm/sf @1.57 psf
CSA A440 Air	A3
Water Resistance (Per ASTM E 547)	7.5 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F842 Type A, CAWM 300 Type I and AAMA 1304
U-Factor (Per NFRC 100)*	0.30
CR (Per NFRC 500)*	58
CRF Frame (Per AAMA 1503)	N/A

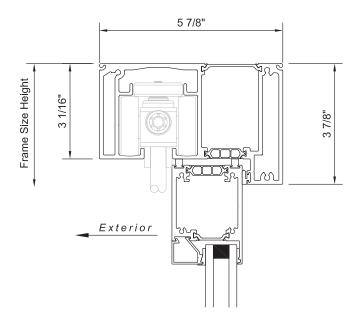
Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear





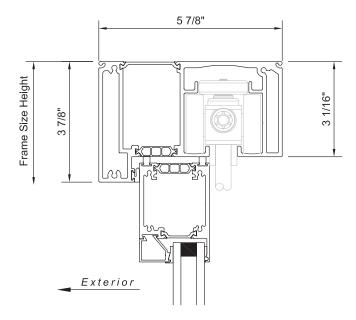


head load bi-fold fold-out head

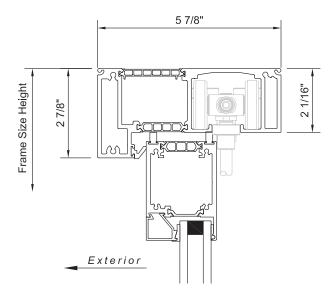


heavy-duty head load bi-fold fold-out head



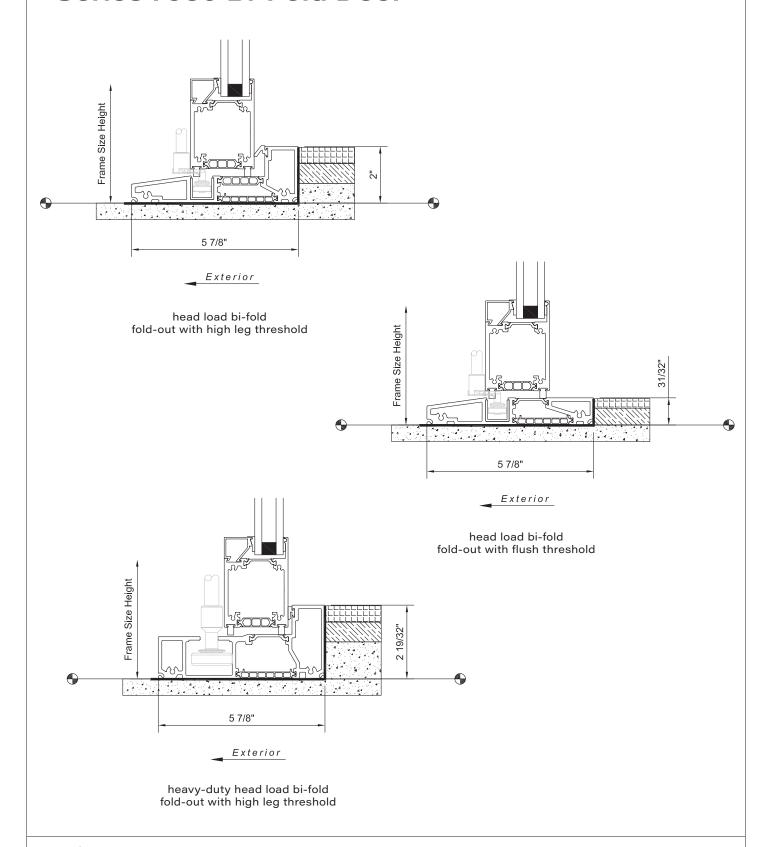


heavy-duty head load bi-fold fold-in head

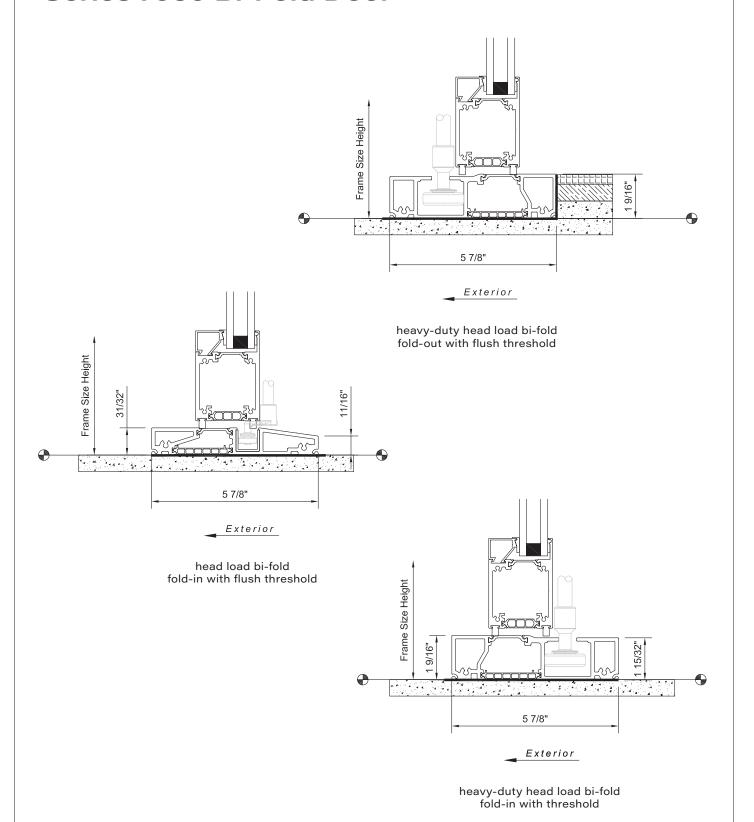


head load bi-fold fold-in head

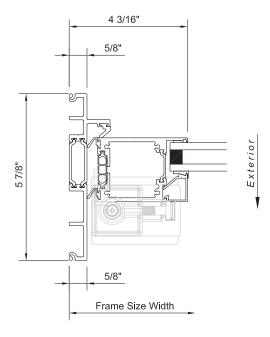




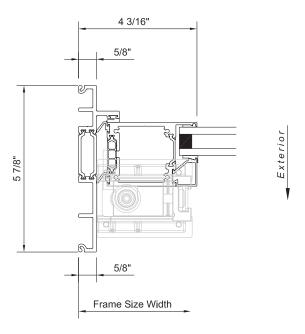






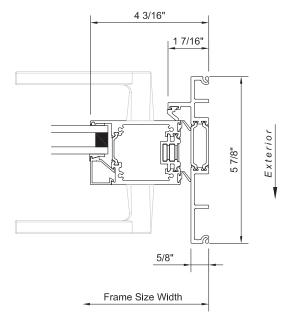


head load bi-fold fold-out jamb at pivot hinge

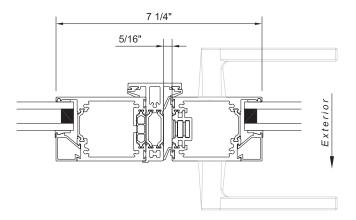


heavy duty head load bi-fold fold-out jamb at pivot hinge



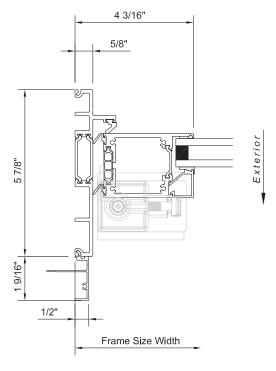


head load bi-fold fold-out jamb

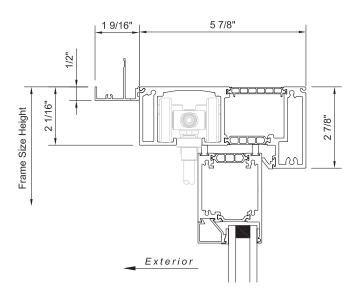


head load bi-fold fold-out bi-parting condition



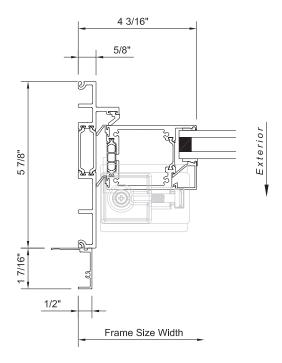


head load bi-fold fold-out jamb at pivot hinge at 1" stucco return

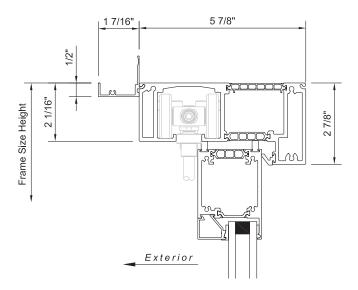


head load bi-fold fold-out head at 1" stucco return





head load bi-fold fold-out jamb at pivot hinge at 1 3/8" stucco return



head load bi-fold fold-out head at 1 3/8" stucco return



The Series 7900 Hinged Door features a wide glass panel that maximizes views and lets in natural light, as well as creating an impressive main entrance or clear interior passage, and it also can connect the indoors with the outside via a patio, deck, or balcony. The door is available in single or double out-swing configurations and can be partnered with any of our window styles. Standard jambs are available for panel sizes up to  $4' \times 10'$ . Heavy-duty jambs are required for larger sizes (up to  $5' \times 12'$ ).

### **ENERGY EFFICIENCY**

A .32 U-value for standard low-E, argon-filled dual-pane glass or a .21 U-value for high-performance triple-pane glass gives the door excellent energy efficiency and is tested for air, water, and structural performance and is certified by the NFRC and AAMA. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. Our signature aluminum extrusion design further reduces energy consumption. The Series 7900 features Energy Star-qualified options and complies with California's rigorous Title 24 requirements.

#### **HARDWARE**

On doors over eight feet tall, stainless steel roller catches are utilized to the pull the door tight.

### **OPTIONS**

The standard threshold is 5.875" wide and features a 1" exterior step that protects against water penetration. The commercial threshold favors ease of entry over protection from the elements and is capable of meeting ADA requirements. Our premium handle features a minimal one-piece design. Lock options include the Type C lock (standard deadbolt), three-point, five-point, or six-point lock.

### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

#### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG50-48x120-SHD
Test Configuration	48" x 120" X Swing-Out
Air Infiltration (Per ASTM E 283)	.00 cfm/sf @1.57 psf
CSA A440 Air	A3
Water Resistance (Per ASTM E 547)	7.5 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	AAMA 1304-02
U-Factor (Per NFRC 100)*	0.32
CR (Per NFRC 500)*	64
CRF Frame (Per AAMA 1503)	70

Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear



Series 7900 Hinged Right - Swing Out Door Standard Jamb - Equal Leg Frame



Series 7900 Hinged Right - Swing Out Door Heavy-Duty Jamb - Equal Leg Frame



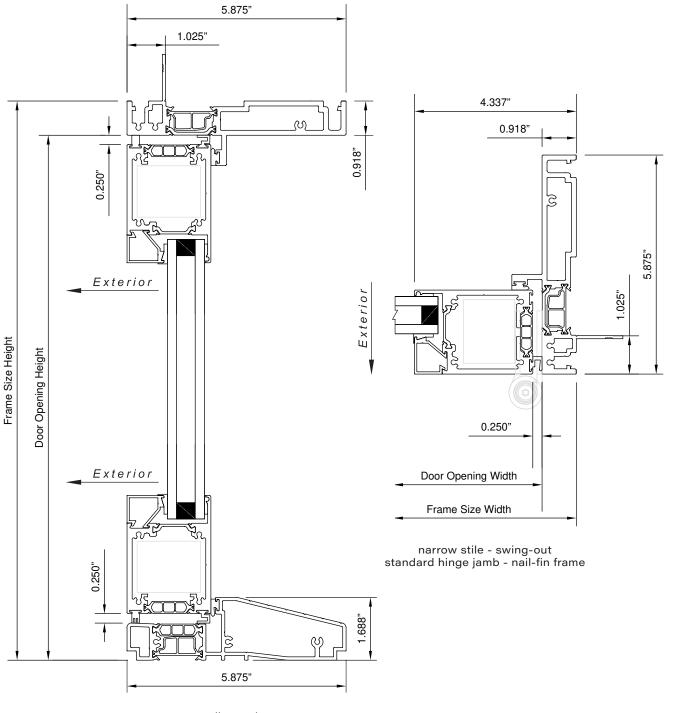
Series 7900 Hinged Right - Swing Out Door Standard Jamb - Nail-Fin Frame



Series 7900 Hinged Right - Swing Out Door Heavy-Duty Jamb - Nail-Fin Frame



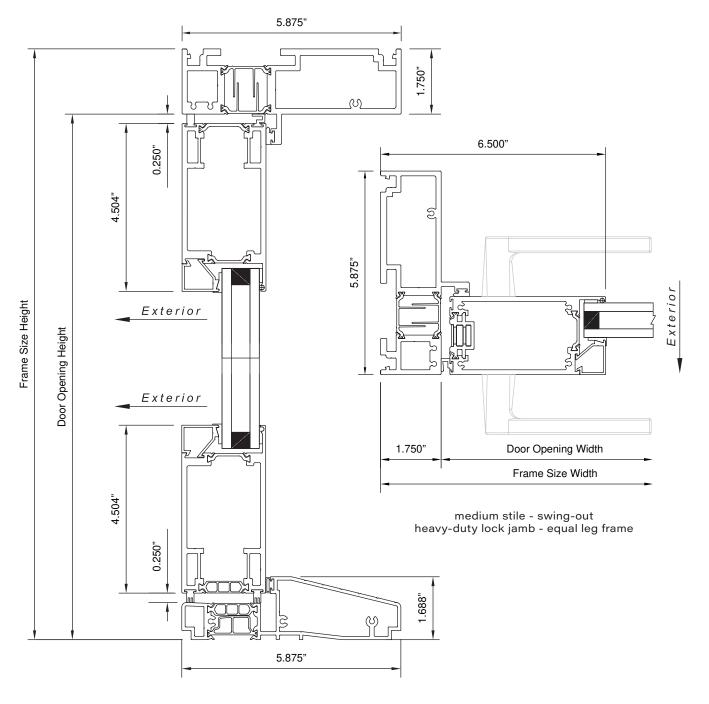
narrow stile - swing-out standard head - nail-fin frame

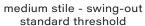


narrow stile - swing-out standard threshold

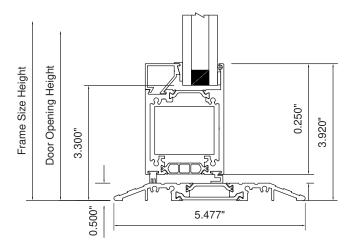


medium stile - swing-out heavy-duty head - equal leg frame









swing-out commercial threshold

The Series 7900 Hinged Door features a wide glass panel that maximizes views and lets in natural light, as well as creating an impressive main entrance or clear interior passage, and it also can connect the indoors with the outside via a patio, deck, or balcony. The door is available in single or double in-swing configurations and can be partnered with any of our window styles. Standards jambs are available for panel sizes up to  $4' \times 10'$ . Heavy-duty jambs are required for larger sizes (up to  $5' \times 12'$ ).

#### **ENERGY EFFICIENCY**

A .31 U-value for standard low-E, argon-filled dual-pane glass or a .21 U-value for high-performance triple-pane glass gives the door excellent energy efficiency and is tested for air, water, and structural performance and is certified by the NFRC and AAMA. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. Our signature aluminum extrusion design further reduces energy consumption. The Series 7900 features Energy Star-qualified options and complies with California's rigorous Title 24 requirements.

#### **HARDWARE**

On doors over eight feet tall, stainless steel roller catches are utilized to pull the door tight.

### **OPTIONS**

The standard threshold is 5.875" wide and features a 1.69" exterior step that protects against water penetration. The commercial threshold favors ease of entry over protection from the elements and is capable of meeting ADA requirements. Our premium handle features a minimal one-piece design. Lock options include the Type C lock (standard deadbolt), three-point, five-point, or six-point lock.

### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

#### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG50-48x120-LW-SHD
Test Configuration	48" x 120" X Swing-In
Air Infiltration (Per ASTM E 283)	.07 cfm/sf @1.57 psf
CSA A440 Air	A3
Water Resistance (Per ASTM E 547)	0.00 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	AAMA 1304-02
U-Factor (Per NFRC 100)*	0.31
CR (Per NFRC 500)*	53
CRF Frame (Per AAMA 1503)	70

Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear



Series 7900 Hinged Right - Swing In Door Standard Jamb - Equal Leg Frame



Series 7900 Hinged Right - Swing In Door Heavy-Duty Jamb - Equal Leg Frame



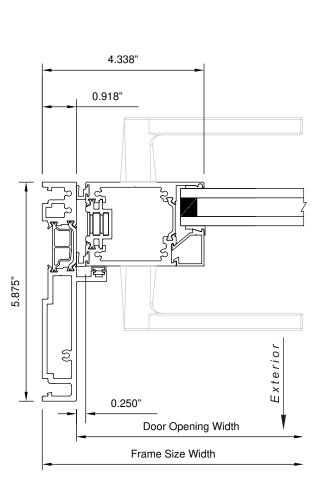
Series 7900 Hinged Right - Swing In Door Standard Jamb - Nail-Fin Frame



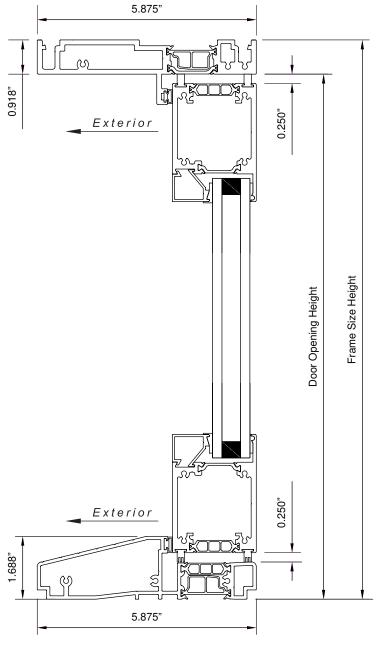
Series 7900 Hinged Right - Swing In Door Heavy-Duty Jamb - Nail-Fin Frame



narrow stile - swing-in standard head - equal leg frame



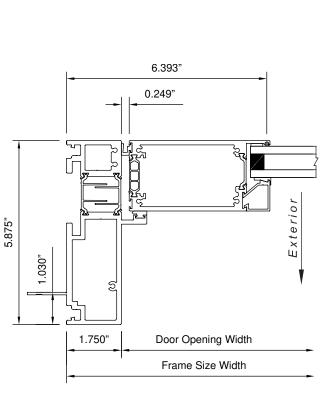
narrow stile - swing-in standard lock jamb - equal leg frame



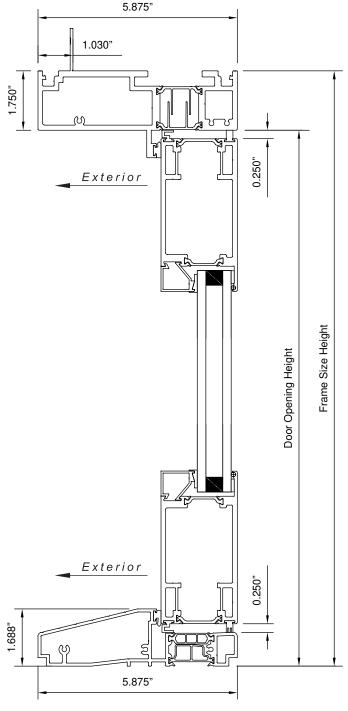
narrow stile - swing-in standard threshold



medium stile - swing-in heavy-duty head - nail-fin frame

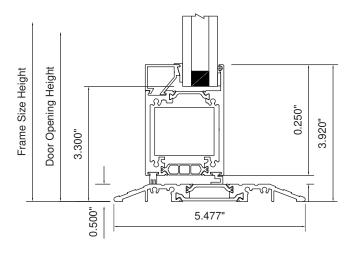


medium stile - swing-in heavy-duty lock jamb - nail-fin frame



medium stile - swing-in standard threshold





swing-out commercial threshold

The Series 7980 Pivot Door creates what may be the most impressive way to customize an entryway. Its wide glass panel and attractive aluminum frame connotes contemporary grandeur. For commercial use, a 5.975" frame depth is comparable to that of typical storefront systems. Even massive doors weighing up to 500 pounds open with ease. The door is available in widths up to 96" and heights up to 144". The door is available in in-swing or out-swing configurations and can be partnered with any of our window styles.

### **ENERGY EFFICIENCY**

A .30 U-value for standard low-E, argon-filled dual-pane glass gives the door premium energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. Our signature aluminum extrusion design further reduces energy consumption. The Series 7980 features Energy Starqualified options.

#### **HARDWARE**

Our custom pivot hardware supports the weight of the door on the bottom arm, creating less stress on the frame and allowing the door to swing smoothly and effortlessly. The Series 7980 uses a low-profile commercial threshold capable of meeting ADA requirements. It includes a Type C lock, top and bottom roller catches to help pull the door in tight, and a 48" tall ladder-style pull handle.

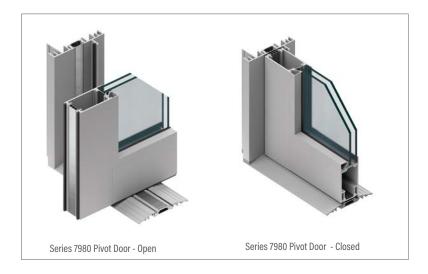
### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

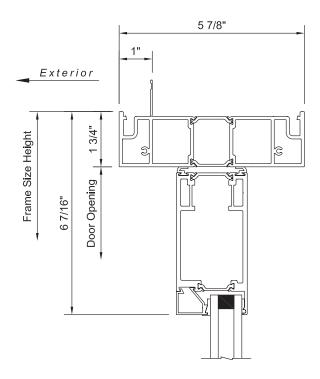
### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/ CSA101/I.S.2/A440 Designation)	N/A
Test Configuration	36" x 96" X Swing-Out
Air Infiltration (Per ASTM E 283)	.22 cfm/sf @1.57 psf
CSA A440 Air	N/A
Water Resistance (Per ASTM E 547)	0.00 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	AAMA 1304-02
U-Factor (Per NFRC 100)*	0.30
CR (Per NFRC 500)*	66
CRF Frame (Per AAMA 1503)	73

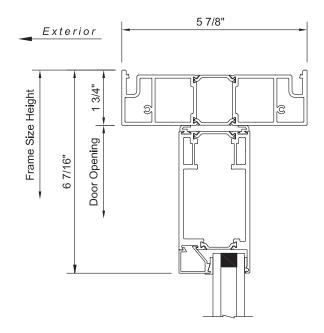
Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear





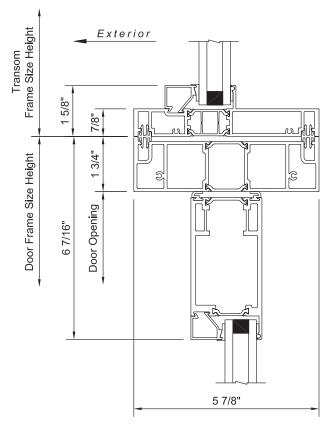


head - nail in frame

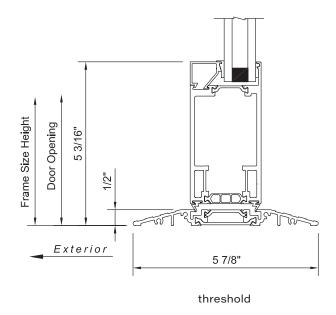


head - equal leg block frame

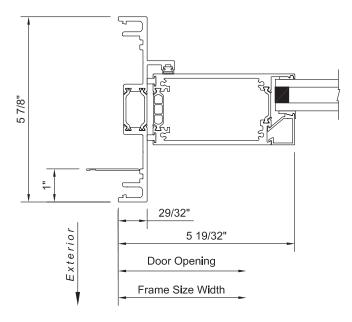




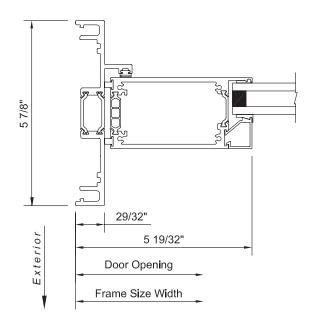
mull @ door @ direct set window transom





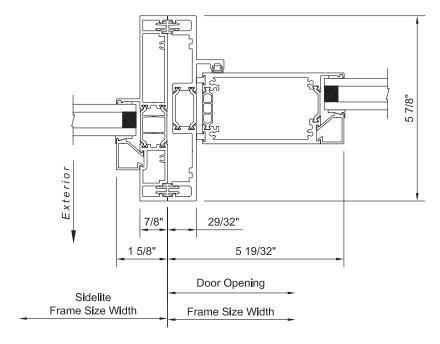


jamb - nail-fin frame



jamb - equal leg block frame





mull @ door @ direct set window sidelite



The Series 7630 Window Wall provides you the opportunity to replace a traditional exterior wall with huge panels of low-E dual-pane glass. With its ability to integrate with various ventilating window styles and our hinged and sliding doors, it's flexible as well as functional. Available up to heights of 16 feet (dependent on application) and with its 5.875" frame depth, the window wall allows any of our Series 7000 sliding doors, hinged doors, and ventilating windows to be directly mulled to it. The window wall is tested for durability and features a performance grade of CW-PG100 at sizes up to 60" by 120". Narrow sightlines result in a clean, contemporary look.

#### **ENERGY EFFICIENCY**

A .29 U-value for standard low-E, dualpane glass gives the door excellent energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. Our signature aluminum extrusion design further reduces energy consumption. The Series 7630 features Energy Star-qualified options and complies with California's rigorous Title 24 requirements.

#### **OPTIONS**

The standard base sill is .875" tall. An optional high base sill is 1.75" tall and is perfect for window walls that sit directly on a finished floor. The standard stop features a classic stepped profile with removable stops for ease of re-glazing, and a weeped glazing pocket.

#### **FINISHES AND COLORS**

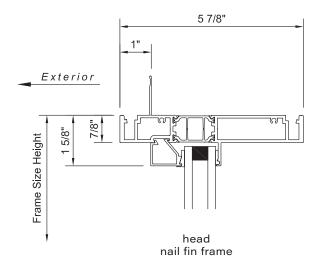
Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

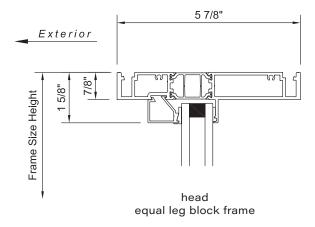
#### **PERFORMANCE**

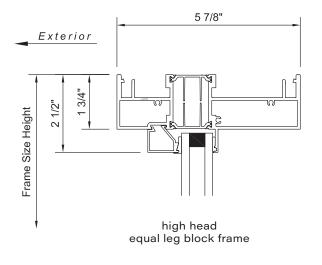
Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG100-60×120-FW
Test Configuration	60" x 120" O
Air Infiltration (Per ASTM E 283)	.01 cfm/sf @1.57 psf
CSA A440 Air	Fixed
Water Resistance (Per ASTM E 547)	12.1 psf
Uniform Load Deflection (Per ASTM E 330)	100 psf
Uniform Load Structural (Per ASTM E 330)	150 psf
Forced Entry Resistance	ASTM F588 Type D Grade 40
U-Factor (Per NFRC 100)*	0.29
CR (Per NFRC 500)*	66
CRF Frame (Per AAMA 1503)	75

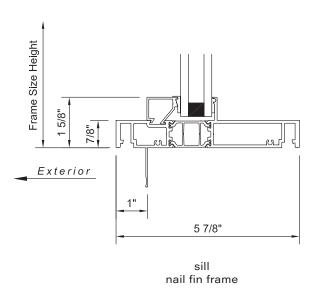
Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear

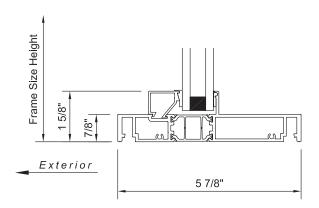




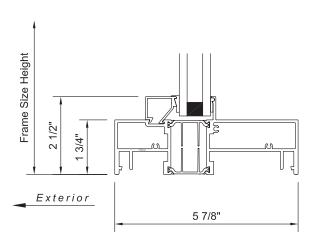




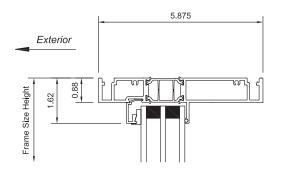




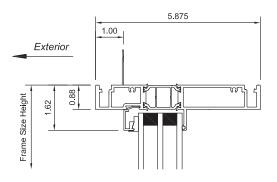
sill equal leg block frame



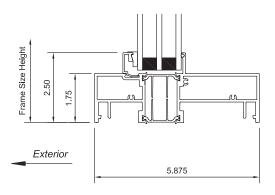
high sill equal leg block frame



head equal leg frame triple pane

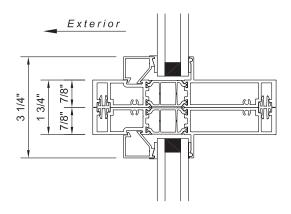


head nail fin frame triple pane

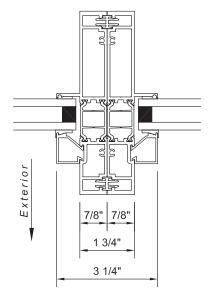


high sill equal leg frame triple pane

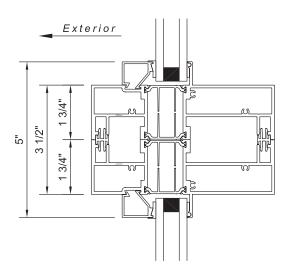




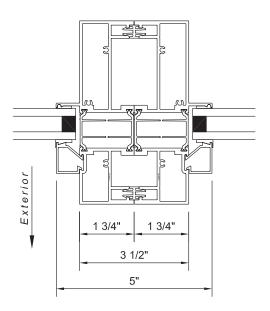
13/4" horizontal mull



13/4" vertical mull

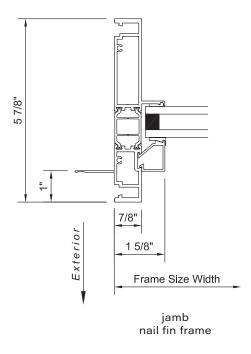


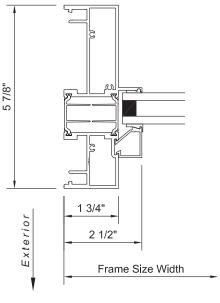
3 1/2" horizontal mull

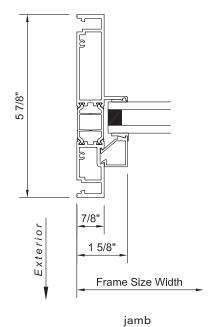


3 1/2" vertical mull









equal leg block frame

high jamb equal leg block frame



The Series 7660 Awning Window hinges on the top and opens outward from the bottom. Typically wider than it is tall, the awning window is ideal for providing natural light and ventilation in modern configurations. It combines clean design and optimal performance with a commitment to superior craftsmanship. Designed with a 5.875" frame depth (ideal for security glass and noise reduction), it can be integrated with our hinged doors, sliding doors, and fixed window walls for maximum views and ventilation. It is available in widths from 20" to 60" and heights from 18" to 48." The window is tested for air, water, and structural performance and is certified by the NFRC and AAMA.

#### **ENERGY EFFICIENCY**

A .38 U-value for standard low-E, dual-pane glass gives the window excellent energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. Plus, a signature aluminum extrusion design utilizing custom Insulbar technology further reduces energy consumption.

#### **FEATURES**

A double scissor-arm operator enables easy operation. All fasteners are stainless steel, and the Series 7660 Awning features a hidden multi-point locking system. Designed to create a sleek profile, the Series 7660 features new hinge hardware and contemporary handles. Durable aluminum-frame screens complement the window's clean, contemporary style. Screen frames match the window frame's color and are mounted to the interior.

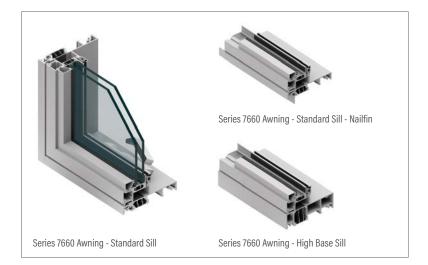
#### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

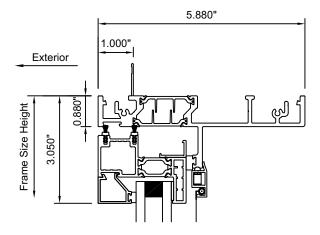
#### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG60-60x36-AP
Test Configuration	60" x 36" X
Air Infiltration (Per ASTM E 283)	.06 cfm/sf @1.57 psf
CSA A440 Air	A3
Water Resistance (Per ASTM E 547)	9.2 psf
Uniform Load Deflection (Per ASTM E 330)	60 psf
Uniform Load Structural (Per ASTM E 330)	90 psf
Forced Entry Resistance	ASTM F588 Type B and CAWM 301 Type II
U-Factor (Per NFRC 100)*	0.38
CR (Per NFRC 500)*	59
CRF Frame (Per AAMA 1503)	70

Actual values may vary depending on product specifications and configuration. \*Glass Makeup = 1" OA E366/Argon/Clear

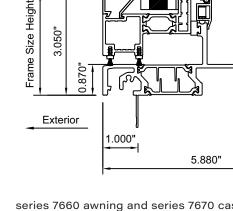




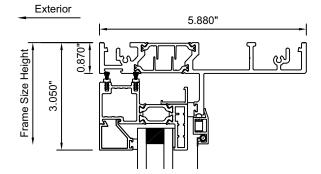


series 7660 awning and series 7670 casement window head - nail fin frame

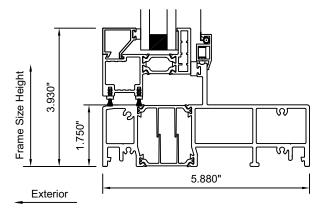




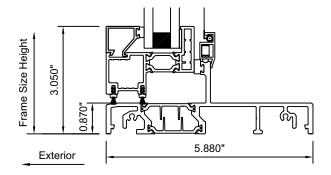
series 7660 awning and series 7670 casement window sill - nail fin frame



series 7660 awning and series 7670 casement window head - equal leg block frame

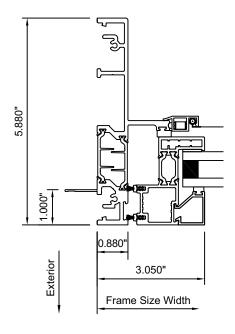


series 7660 awning and series 7670 casement window sill - equal leg block high frame

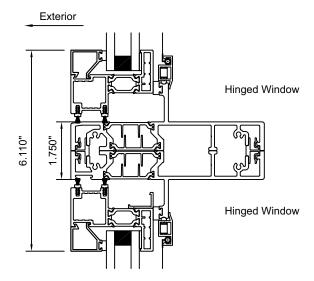


series 7660 awning and series 7670 casement window sill - equal leg block frame

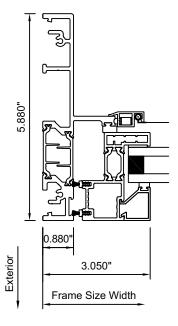




series 7660 awning and series 7670 casement window jamb - nail fin frame

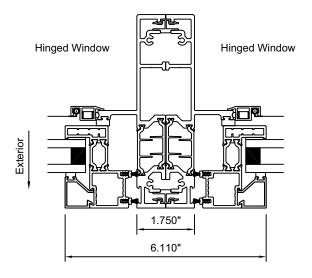


series 7660 awning and series 7670 casement window horizontal mull



series 7660 awning and series 7670 casement window jamb - equal leg block frame





series 7660 awning and series 7670 casement window vertical mull



The Series 7670 Casement Window, which hinges on the side and swings outward to the left or right, combines clean design and optimal performance with a commitment to superior craftsmanship. Designed with a 5.875" frame depth (ideal for security glass and noise reduction), it can be integrated with our hinged doors, sliding doors, and fixed window walls for maximum views and ventilation. It is available in widths from 18" to 36" and heights from 18" to 95.5." The window is tested for air, water, and structural performance and is certified by the NFRC and AAMA.

### **ENERGY EFFICIENCY**

A .37 U-value for standard low-E, dual-pane glass gives the window excellent energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. Plus, a signature aluminum extrusion design utilizing custom Insulbar technology further reduces energy consumption.

#### **FEATURES**

Butt hinges and a roto operator enable easy operation. All fasteners are stainless steel, and the Series 7670 Casement features a hidden multi-point locking system. Designed to create a sleek profile, the Series 7670 features new hinge hardware and contemporary handles. Durable aluminum-frame screens complement the window's clean, contemporary style. Screen frames match the window frame's color and are mounted to the interior.

### **PUSH-OUT OPTION**

The Series 7670 Push-Out Casement opens easily with the turn of the handle and a light push. Stainless steel four-bar hinges with an adjustable tensioning device keep the sash in place when open. It is available in widths from 16" to 36" and heights from 16" to 72".

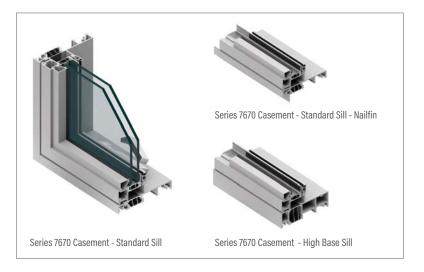
#### **FINISHES AND COLORS**

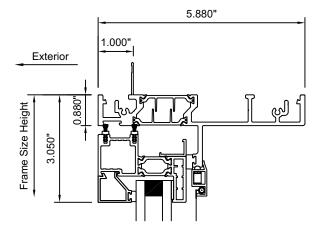
Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

#### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG50-36x94-C
Test Configuration	36" x 94"
Air Infiltration (Per ASTM E 283)	.02 cfm/sf @1.57 psf
CSA A440 Air	A3
Water Resistance (Per ASTM E 547)	7.5 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F588 Type B and CAWM 301 Type II
U-Factor (Per NFRC 100)*	0.37
CR (Per NFRC 500)*	60
CRF Frame (Per AAMA 1503)	70

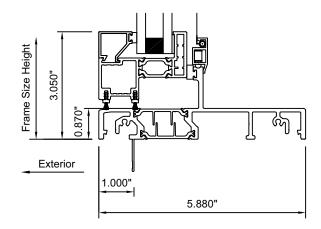
Actual values may vary depending on product specifications and configuration.  $*Glass\ Makeup = 1"\ OA\ E366/Argon/Clear$ 

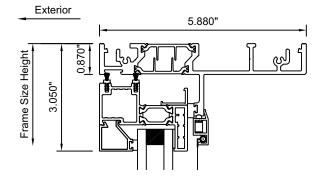




series 7660 awning and series 7670 casement window head - nail fin frame

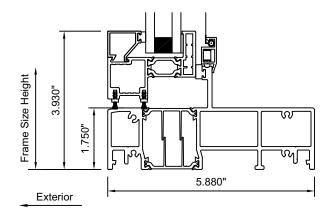




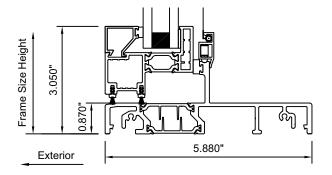


series 7660 awning and series 7670 casement window sill - nail fin frame

series 7660 awning and series 7670 casement window head - equal leg block frame

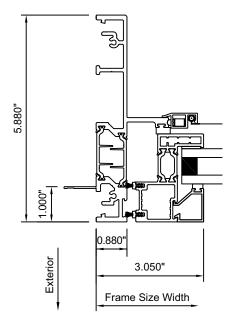


series 7660 awning and series 7670 casement window sill - equal leg block high frame

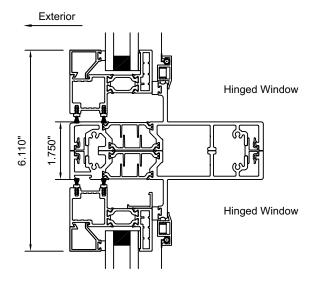


series 7660 awning and series 7670 casement window sill - equal leg block frame

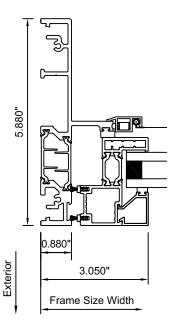




series 7660 awning and series 7670 casement window jamb - nail fin frame



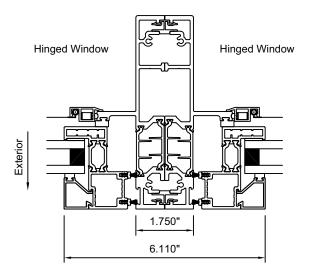
series 7660 awning and series 7670 casement window horizontal mull



series 7660 awning and series 7670 casement window jamb - equal leg block frame



## **Series 7670 Casement Window**



series 7660 awning and series 7670 casement window vertical mull



## Series 7680 Hopper Window

The Series 7680 Hopper Window hinges on the bottom and opens inward from the top. Typically wider than it is tall, the hopper window is ideal for providing natural light and ventilation to areas where there is limited space for window to open outwardly. It combines clean design and optimal performance with a commitment to superior craftsmanship. Designed with a 5.875" frame depth (ideal for security glass and noise reduction), it can be integrated with our hinged doors, sliding doors, and fixed window walls for maximum views and ventilation. It is available in widths from 14" to 60" and heights from 14" to 44." The window is tested for air, water, and structural performance and is certified by the NFRC and AAMA.

### **ENERGY EFFICIENCY**

A .38 U-value for standard low-E, dual-pane glass gives the window excellent energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. Plus, a signature aluminum extrusion design utilizing custom Insulbar technology further reduces energy consumption.

#### **FEATURES**

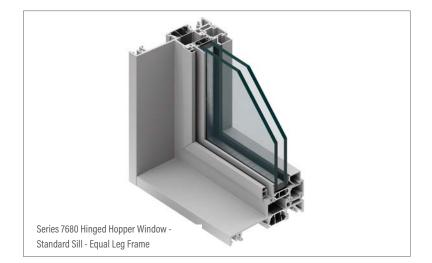
Depending on the size and placement, the hopper is available with pawl handle or ring-pull latch with an extension pole. All fasteners are stainless steel. Durable aluminum-frame screens complement the window's clean, contemporary style. Screen frames match the window frame's color and are mounted to the exterior.

### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG50-60x36-AP
Test Configuration	60" x 36" X
Air Infiltration (Per ASTM E 283)	.02 cfm/sf @1.57 psf
CSA A440 Air	A3
Water Resistance (Per ASTM E 547)	7.5 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F588 Type B and CAWM 301 Type III
U-Factor (Per NFRC 100)*	0.38
CR (Per NFRC 500)*	51
CRF Frame (Per AAMA 1503)	67





## Series 7610 Single-Hung Window

The Series 7610 Single-Hung Window features a fixed top sash and vertically sliding bottom sash for ventilation. The Series 7610 offers a design pressure rating for commercial applications such as luxury hotels and resorts, office spaces, and multi-family housing. Designed with a 5.875" frame depth (ideal for noise reduction and security glass), it can be integrated with our hinged doors, sliding doors, and fixed window walls for maximum views and ventilation. It is available in sizes up to 72" x 120" with vent height typically half the window height.

### **ENERGY EFFICIENCY**

A .35 U-value for standard low-E, dual-pane glass gives the window excellent energy efficiency. Plus, a signature aluminum extrusion design utilizing custom Insulbar technology further reduces energy consumption. The windows comply with California's strict Title 24 requirements.

### **FEATURES**

The single-hung window can be mulled to most of our product lines. This male/female mulling feature is unique in aluminum fenestration products, and it eliminates the need for operable inserts while maximizing glass and narrowing sightlines. Spiral balancers provide better adjustability and smoother operation. A T-lock engages an integrated strike in the frame's center bar. Durable aluminum-frame screens complement the window's clean, contemporary style. Screen frames match the window frame's color.

### **FINISHES AND COLORS**

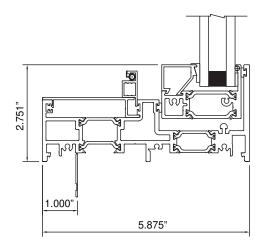
Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

### **PERFORMANCE**

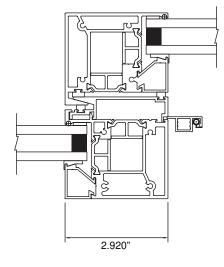
Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG65-56x98-H
Test Configuration	56" x 98" O/X
Air Infiltration (Per ASTM E 283)	.16 cfm/sf @1.57 psf
CSA A440 Air	N/A
Water Resistance (Per ASTM E 547)	9.8 psf
Uniform Load Deflection (Per ASTM E 330)	65 psf
Uniform Load Structural (Per ASTM E 330)	97.5 psf
Forced Entry Resistance	ASTM F588 Type A and CAWM 301 Type I
U-Factor (Per NFRC 100)*	0.35
CR (Per NFRC 500)*	52
CRF Frame (Per AAMA 1503)	66



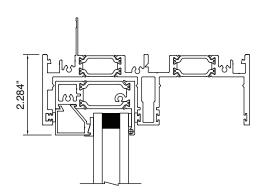
# Series 7610 Single-Hung Window



nail-fin condition



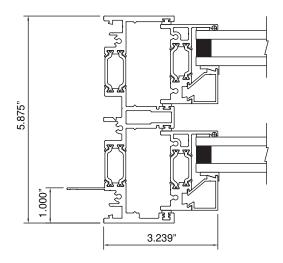
interlock condition



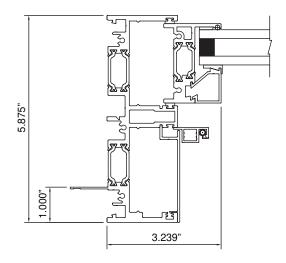
nail-fin condition



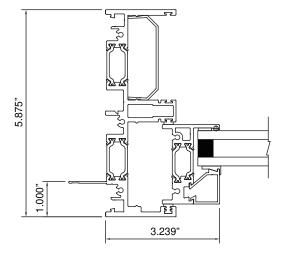
# Series 7610 Single-Hung Window



jamb all panel



vent panel



fixed panel



## **Series 7620 Sliding Window**

The Series 7620 Sliding Window features one or two sliding sash in XO, OX, XX, and OXO configurations. The Series 7620 offers a design pressure rating for commercial applications such as luxury hotels and resorts, office spaces, and multi-family housing. Designed with a 5.875" frame depth (ideal for noise reduction and security glass), it can be integrated with our hinged doors, sliding doors, and fixed window walls for maximum views and ventilation. The double-sash sliding window is available in sizes up to 120" x 72".

### **ENERGY EFFICIENCY**

A .35 U-value for standard low-E, dual-pane glass gives the window excellent energy efficiency. Plus, a signature aluminum extrusion design utilizing custom Insulbar technology further reduces energy consumption. The windows comply with California's strict Title 24 requirements.

### **FEATURES**

The sliding window can be mulled to most of our product lines. This male/female mulling feature is unique in aluminum fenestration products, and it eliminates the need for operable inserts while maximizing glass and narrowing sightlines. The sliding panels are equipped with durable Celcon rollers mounted in nylon housings. A T-lock engages an integrated strike in the frame's center bar. Durable aluminum-frame screens complement the window's clean, contemporary style. Screen frames match the window frame's color.

### **FINISHES AND COLORS**

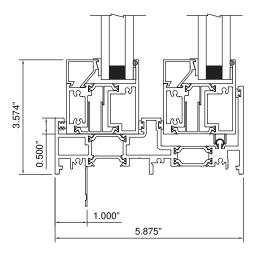
Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

### **PERFORMANCE**

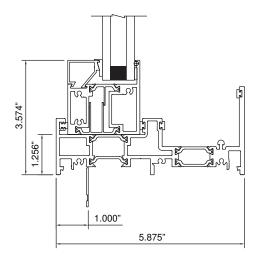
Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG50-96x108-HS
Test Configuration	96" x 108" OX/O
Air Infiltration (Per ASTM E 283)	.14 cfm/sf @1.57 psf
CSA A440 Air	N/A
Water Resistance (Per ASTM E 547)	9.2 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F588 Type A and CAWM 301 Type I
U-Factor (Per NFRC 100)*	0.35
CR (Per NFRC 500)*	53
CRF Frame (Per AAMA 1503)	71
Actual values may vary depending an product specifications and configuration	



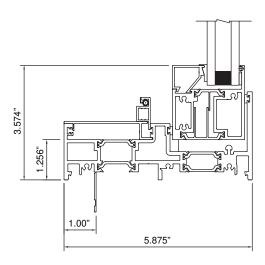
# **Series 7620 Sliding Window**



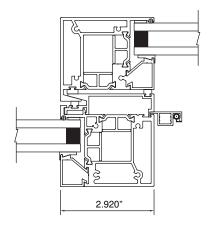
all panel condition



fixed panel condition



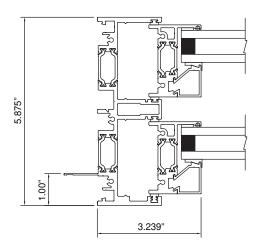
vent panel condition



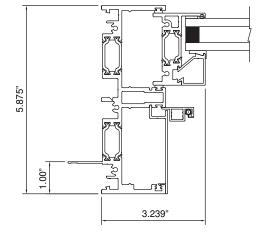
interlock condition



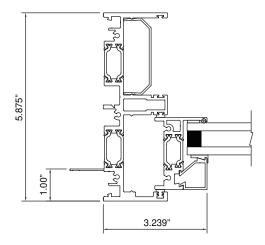
# **Series 7620 Sliding Window**



all panel condition



vent panel condition



fixed panel condition



### Series 7600s Multi-Slide Door

The Series 7600s Multi-Slide Door features large, unobstructed rolling glass panels that stack or slide into pockets to create extra-wide openings for indoor-outdoor commercial and living spaces. Narrow sightlines, beveled glass stops, and coped muntin bars replicate the profiles of steel putty glazed windows used in historic buildings, universities, and commercial projects. The thermally broken aluminum frames feature high-quality anodized or painted finishes. The door can be easily integrated with simulated steel windows to form a consistent aesthetic throughout your project.

### **ENERGY EFFICIENCY**

A .30 U-value for standard low-E, argon-filled dual-pane glass from Cardinal IG gives the door premium energy efficiency. It is compliant with California's rigorous Title 24 requirements and can be customized in a variety of panel counts, configurations, and wall depths. The aluminum frame and panels are thermally broken to reduce heat and cold transfer. NFRC labeling is included to comply with energy code requirements.

### **HARDWARE**

The sealed stainless steel ball bearing rollers are AAMA-certified and include a standard 1.81" size. Our optional Quad-Zilla roller is capable of handling extreme panel sizes and heavy glass types. A hidden stainless steel multi-point lock secures the sliding panels.

### **OPTIONS**

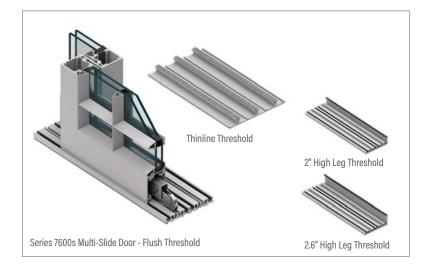
Sill options include a 2" or 2.6" water barrier height offering design flexibility with varying performance ratings; a flush sill, which is best when ease of entry is more important than keeping out the elements; and the Thinline sill, which is ideal in situations where the continuation of flooring from the inside to the outside appears seamless. Handle options include a flush-mounted handle, which allows panels to slide past each other and stack flush or into a pocket. The contemporary handle features a minimal one-piece design and comfortable grip. Both handles have an optional keyed cylinder.

### **FINISHES AND COLORS**

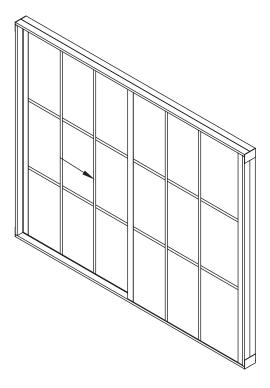
Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

#### **PERFORMANCE**

Frame Depth	2.87" Per Track
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	LC-PG50-144x120-SD
Test Configuration	144" x 120" XXO
Air Infiltration (Per ASTM E 283)	.24 cfm/sf @1.57 psf
CSA A440 Air	A2
Water Resistance (Per ASTM E 547)	8.0 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F842 Type B Grade 10
U-Factor (Per NFRC 100)*	0.30
CR (Per NFRC 500)*	57
CRF Frame (Per AAMA 1503)	69

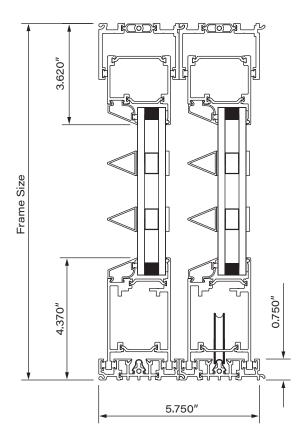


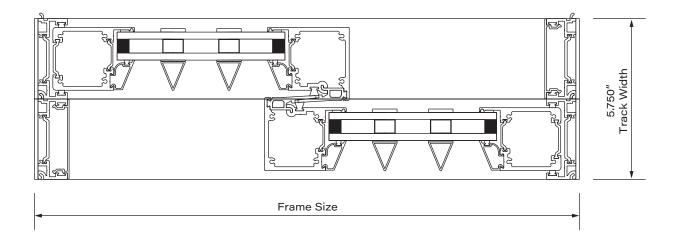
### Series 7600s Multi-Slide Door



- .30 U-value for standard low-E, argon-filled dual-pane glass
- All-climate coated or high-performance glass from Cardinal IG
- Glass can be customized and includes options such as laminated glass, solar- and glare-control glass, enhanced winter performance glass, and lowmaintenance glass
- Pre-applied Cardinal Preserve film protects glass during installation
- Performance-rated at DP50
- Available in sizes up to 15 feet in most markets
- 2.9" interlock stile
- Pocketing, non-pocketing, bi-parting, and 90-degree configurations
- Certified by AAMA
- Energy Star-qualified options
- Sealed stainless steel ball bearing rollers
- Quad-Zilla roller for extreme sizes and heavy glass types
- Water barrier, flush, and thinline sill options
- Premium or flush-mounted handle
- Interlocking track design
- Concealed locking system
- Aluminum frame panel screen
- In-stock, designer, split, and custom finishes
- System automation (third party)
- Title 24 compliant (California)

# Series 7600s Multi-Slide Door







The Series 7650s Sliding Glass Door features large, energy efficient rolling glass panels that maximize natural daylight and views. Narrow sightlines, beveled glass stops, and coped muntin bars replicate the profiles of steel putty glazed windows used in historic buildings, universities, and commercial projects. The thermally broken aluminum frames feature high-quality anodized or painted finishes. The door can be easily integrated with simulated steel windows to form a consistent aesthetic throughout your project.

### **ENERGY EFFICIENCY**

A .30 U-value for standard low-E, argon-filled dual-pane glass from Cardinal IG gives the door premium energy efficiency. It is compliant with California's rigorous Title 24 requirements and the glass can be customized in a variety of coatings, tints, and thicknesses and offers options such as laminated glass, solarand glare-control glass, enhanced winter performance glass. The aluminum frame is thermally broken to reduce heat and cold transfer. NFRC labeling is included to comply with energy code requirements.

#### **HARDWARE**

The sealed stainless steel ball bearing rollers are AAMA-certified and include a standard 1.81" size. Our optional Quad-Zilla roller is capable of handling extreme panel sizes and heavy glass types. A hidden stainless steel multi-point lock secures the sliding panels.

### **OPTIONS**

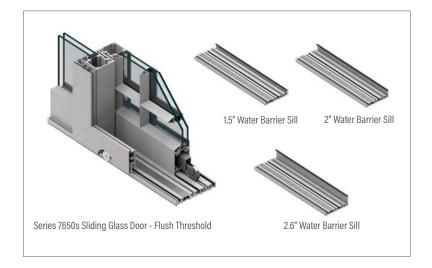
Sill options include a water-barrier sill, featuring a 1.5" interior leg and weep system to keep out water. Taller 2" and 2.6" sills offer increased effectiveness against the elements and a performance rating of DP50. A flush sill option also is available. Handle options include a flush-mounted handle, for a clean aesthetic, and the contemporary handle, with its angular appearance. Each handle has an optional keyed cylinder. An optional heavyduty aluminum frame panel screen provides optimal ventilation.

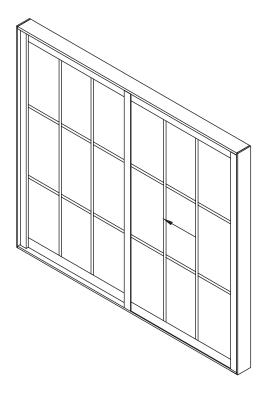
### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split painted finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

### **PERFORMANCE**

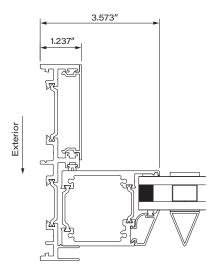
5 7/8"
LC-PG50-144x120-SD
144" x 120" OXO
.15 cfm/sf @1.57 psf
A2
.80 psf
50 psf
75 psf
ASTM F842 Type B Grade 10
0.30
57
71



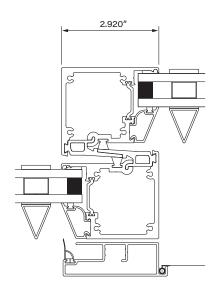


- .30 U-value for standard low-E, argon-filled dual-pane glass
- All-climate coated or high-performance glass from Cardinal IG
- Glass can be customized and includes options such as laminated glass, solar- and glare-control glass, enhanced winter performance glass, and lowmaintenance glass
- Pre-applied Cardinal Preserve film protects glass during installation
- Performance-rated at DP50
- Available in sizes up to 15 feet in most markets
- 2.9" interlock stile
- Certified by the AAMA
- Quad-Zilla roller for extreme sizes and heavy glass types
- Water barrier and flush sill options
- Premium or flush-mounted handle
- Concealed locking system
- Aluminum frame panel screen
- In-stock, designer, split, and custom finishes
- System automation (third party)
- Title 24 compliant (California)

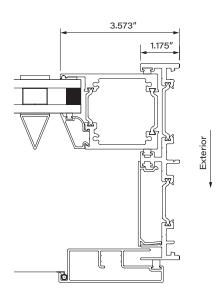




Fixed Jamb

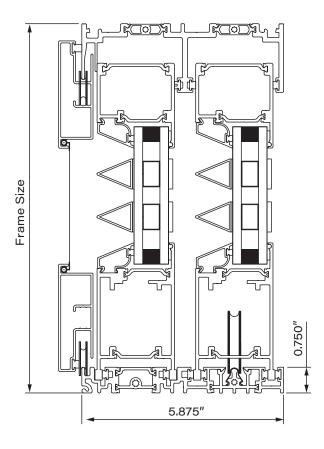


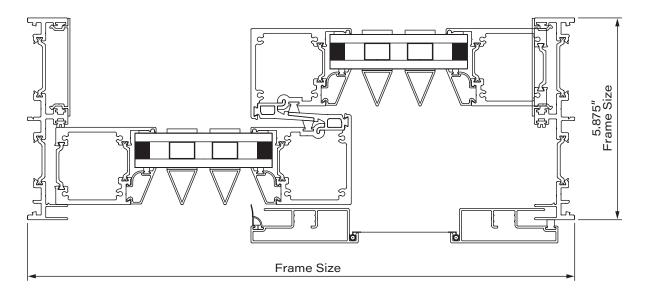
Interlock (Typical)



Lock Jamb @ Active









### Series 7950s Bi-Fold Door

The Series 7950s Bi-Fold Door features large glass panels that smoothly fold and stack against side walls, creating extrawide openings for indoor-outdoor commercial and living spaces. Narrow sightlines, beveled glass stops, and coped muntin bars replicate the profiles of steel putty glazed windows used in historic buildings, universities, and commercial projects. The thermally broken aluminum frames feature high-quality anodized or painted finishes. The door can be easily integrated with simulated steel windows to form a consistent aesthetic throughout your project. The Series 7950s can be designed as a bi-fold window or door system in heights up to 12 feet in select configurations incorporating heavy-duty hardware.

### **ENERGY EFFICIENCY**

A .30 U-value for standard low-E, argon-filled dual-pane glass from Cardinal IG gives the door excellent energy efficiency. An aluminum extrusion utilizing Insulbar technology improves energy performance. The door is compliant with California's rigorous Title 24 requirements and can be customized in a variety of panel counts and configurations. The aluminum frame and panels are thermally broken to reduce heat and cold transfer. NFRC labeling is included to comply with energy code requirements.

#### **HARDWARE**

Stainless steel head load carriers and hinges are available in standard and heavy-duty capacities for extreme panel sizes and heavy glass types. A hidden stainless steel multipoint lock secures the folding panels.

### **OPTIONS**

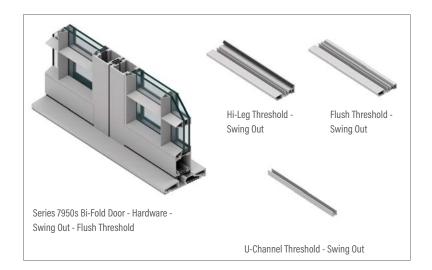
Top-load floor tracks come standard with the 2"-tall water-barrier sill, which safeguards against water intrusion. At just 0.958" tall, the optional flush sill lines up with most interior flooring. An optional U-track allows for a flush transition from room to room. The door includes three high-quality handles: the Dallas handle, located on all active panels; a D-shaped pull handle, at the bi-fold's pivot points; and an inactive lock handle, at the door's pivot points, which secures the panels with steel pins at the head and sill. The Dallas handle has a keyed cylinder.

### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

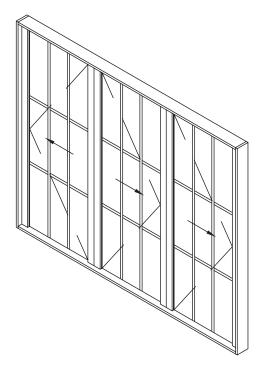
### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	PG50-144x96-SP
Test Configuration	144" x 96" 1L3R E3 Swing Out
Air Infiltration (Per ASTM E 283)	.08 cfm/sf @1.57 psf
CSA A440 Air	A3
Water Resistance (Per ASTM E 547)	7.5 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F842 Type A, CAWM 300 Type I and AAMA 1304
U-Factor (Per NFRC 100)*	0.30
CR (Per NFRC 500)*	58
CRF Frame (Per AAMA 1503)	N/A

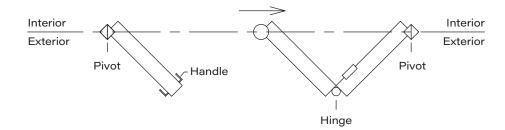




### Series 7950s Bi-Fold Door

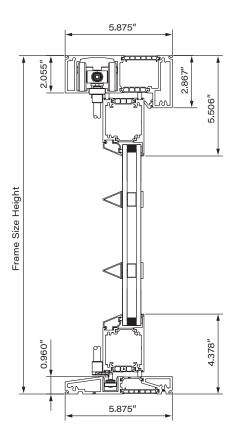


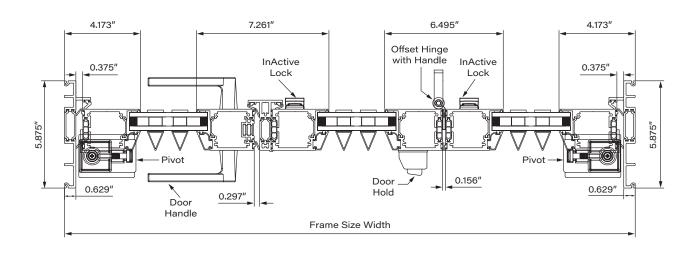
- .30 U-value for standard low-E, argon-filled dual-pane glass
- All-climate coated or high-performance glass from Cardinal IG
- Glass can be customized and includes options such as laminated glass, solar- and glare-control glass, enhanced winter performance glass, and lowmaintenance glass
- Pre-applied Cardinal Preserve film protects glass during installation
- Performance-rated at DP50
- Certified by AAMA
- A 3.17" stile
- Head load carrier hinges available in standard and heavy-duty capacities
- Water barrier, flush sill, and U-track options
- Concealed locking system
- In-stock, designer, split, and custom finishes
- Title 24 compliant (California)





## Series 7950s Bi-Fold Door







The Series 7900s Hinged Door features a wide glass panel that maximizes views and lets in natural light, as well as creating an impressive main entrance or clear interior passage, and it also can connect the indoors with the outside via a patio, deck, or balcony. The door is available in single or double out-swing configurations and can be partnered with any of our window styles. Standard jambs are available for panel sizes up to 4' x 10'. Heavy-duty jambs are required for larger sizes (up to 5' x 12'). Narrow sightlines, beveled glass stops, and coped muntin bars replicate the profiles of historic buildings, universities, and commercial projects. The aluminum features high-quality anodized or painted finishes.

#### **ENERGY EFFICIENCY**

A .32 U-value for standard low-E, argon-filled dual-pane glass gives the door excellent energy efficiency and is tested for air, water, and structural performance and is certified by the NFRC and AAMA. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. Our signature aluminum extrusion design further reduces energy consumption. The Series 7900s features Energy Star-qualified options and complies with California's rigorous Title 24 requirements.

#### **HARDWARE**

On doors over eight feet tall, stainless steel roller catches are utilized to pull the door tight.

### **OPTIONS**

The standard threshold is 5.875" wide and features a 1" exterior step that protects against water penetration. The commercial threshold favors ease of entry over protection from the elements and is capable of meeting ADA requirements. Our premium handle features a minimal one-piece design. Lock options include the Type C lock (standard deadbolt), three-point, five-point, or six-point lock.

### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

#### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG50-48x120-SHD
Test Configuration	48" x 120" X Swing-Out
Air Infiltration (Per ASTM E 283)	.00 cfm/sf @1.57 psf
CSA A440 Air	A3
Water Resistance (Per ASTM E 547)	7.5 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	AAMA 1304-02
U-Factor (Per NFRC 100)*	0.32
CR (Per NFRC 500)*	64
CRF Frame (Per AAMA 1503)	70

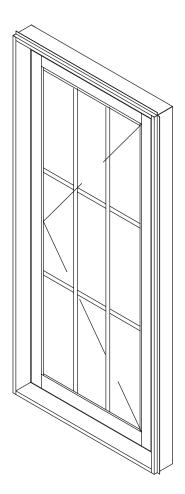




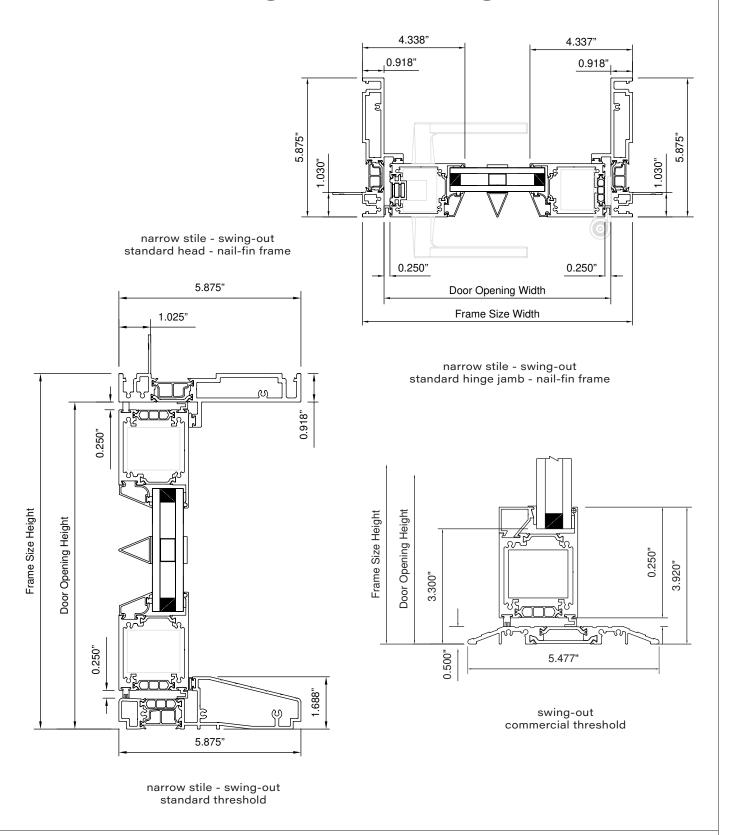


Series 7900s Hinged Right - Swing Out Door Heavy-Duty Jamb - Nail-Fin Frame

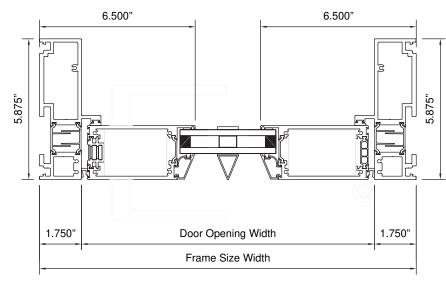




- .32 U-value for standard low-E, argon-filled dual-pane glass
- All-climate coated or high-performance glass from Cardinal IG
- Glass can be customized and includes options such as laminated glass, solar- and glare-control glass, enhanced winter performance glass, and low-maintenance glass
- Pre-applied Cardinal Preserve film protects glass during installation
- Currently available in 4'  $\times$  10' panel sizes with standard jambs and up to 5'  $\times$  12' panel sizes with heavy-duty jambs
- Performance-rated at DP50
- Standard and commercial threshold options
- Four locking options
- Heavy-duty hardware
- In-stock, designer, split, and custom finishes
- Title 24 compliant (California)

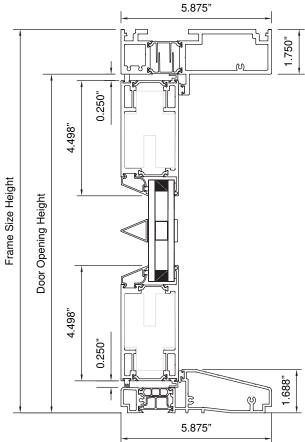






medium stile - swing-out heavy-duty head - equal leg frame

medium stile - swing-out heavy-duty hinge jamb - equal leg frame



medium stile - swing-out standard threshold



The Series 7900s Hinged Door features a wide glass panel that maximizes views and lets in natural light, as well as creating an impressive main entrance or clear interior passage, and it also can connect the indoors with the outside via a patio, deck, or balcony. The door is available in single or double in-swing configurations and can be partnered with any of our window styles. Standard jambs are available for panel sizes up to 4' x 10'. Heavy-duty jambs are required for larger sizes (up to 5' x 12'). Narrow sightlines, beveled glass stops, and coped muntin bars replicate the profiles of historic buildings, universities, and commercial projects. The aluminum features high-quality anodized or painted finishes.

#### **ENERGY EFFICIENCY**

A .31 U-value for standard low-E, argon-filled dual-pane glass gives the door excellent energy efficiency and is tested for air, water, and structural performance and is certified by the NFRC and AAMA. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. Our signature aluminum extrusion design further reduces energy consumption. The Series 7900s features Energy Star-qualified options and complies with California's rigorous Title 24 requirements.

### **HARDWARE**

On doors over eight feet tall, stainless steel roller catches are utilized to the pull the door tight.

### **OPTIONS**

The standard threshold is 5.875" wide and features a 1.69" exterior step that protects against water penetration. The commercial threshold favors ease of entry over protection from the elements and is capable of meeting ADA requirements. Our premium handle features a minimal one-piece design. Lock options include the Type C lock (standard deadbolt), three-point, five-point, or six-point lock.

### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

#### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG50-48x120-LW-SHD
Test Configuration	48" x 120" X Swing-In
Air Infiltration (Per ASTM E 283)	.07 cfm/sf @1.57 psf
CSA A440 Air	A3
Water Resistance (Per ASTM E 547)	0.00 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	AAMA 1304-02
U-Factor (Per NFRC 100)*	0.31
CR (Per NFRC 500)*	53
CRF Frame (Per AAMA 1503)	70

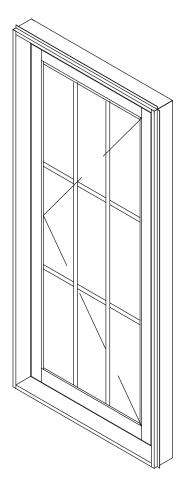


Series 7900s Hinged Right - Swing In Door Standard Jamb - Equal Leg Frame

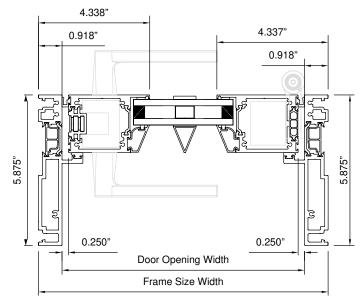


Series 7900s Hinged Right - Swing In Door Heavy-Duty Jamb - Nail-Fin Frame



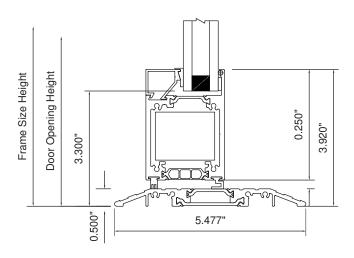


- .31 U-value for standard low-E, argon-filled dual-pane glass
- All-climate coated or high-performance glass from Cardinal IG
- Glass can be customized and includes options such as laminated glass, solar- and glare-control glass, enhanced winter performance glass, and low-maintenance glass
- Pre-applied Cardinal Preserve film protects glass during installation
- Currently available in 4'  $\times$  10' panel sizes with standard jambs and up to 5'  $\times$  12' panel sizes with heavy-duty jambs
- Performance-rated at DP50
- Standard and commercial threshold options
- Four locking options
- Heavy-duty hardware
- In-stock, designer, split, and custom finishes
- Title 24 compliant (California)

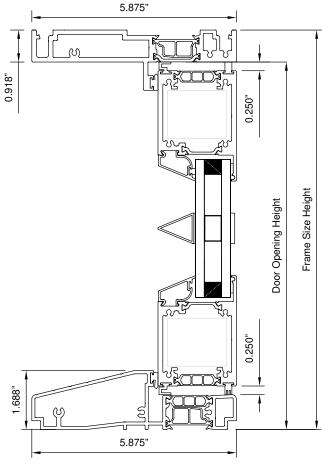


narrow stile - swing-in standard head - equal leg frame

narrow stile - swing-in standard hinge jamb - equal leg frame

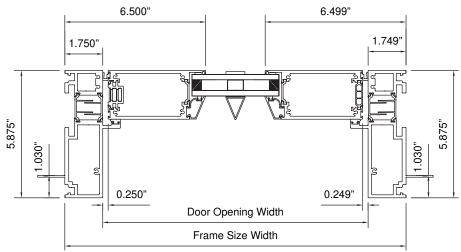


swing-in commercial threshold

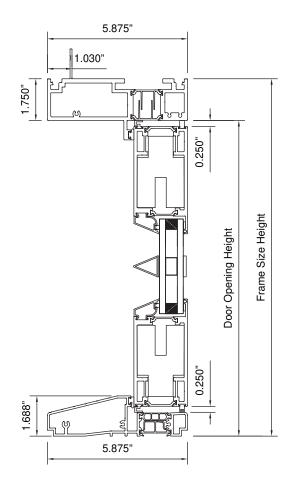


narrow stile - swing-in standard threshold





medium stile - swing-in heavy-duty hinge jamb - nail-fin frame medium stile - swing-in heavy-duty head - nail-fin frame



medium stile - swing-in standard threshold



### Series 7980s Pivot Door

The Series 7980s Pivot Door creates what may be the most impressive way to customize an entryway. Its wide glass panel and attractive aluminum frame connotes contemporary grandeur. For commercial use, a 5.975" frame depth is comparable to that of typical storefront systems. Even massive doors weighing up to 500 pounds open with ease. The door is available in widths up to 96" and heights up to 144". The door is available in in-swing or out-swing configurations and can be partnered with any of our window styles. Narrow sightlines, beveled glass stops, and coped muntin bars replicate the profiles of historic buildings, universities, and commercial projects. The aluminum features high-quality anodized or painted finishes.

### **ENERGY EFFICIENCY**

A .30 U-value for standard low-E, argon-filled dual-pane glass gives the door premium energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. Our signature aluminum extrusion design further reduces energy consumption. The Series 7980 features Energy Starqualified options.

### **HARDWARE**

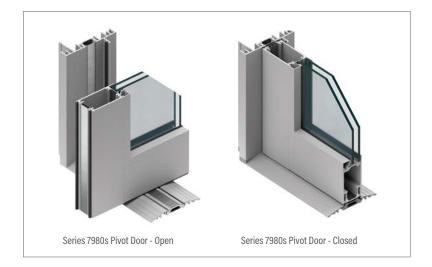
Our custom pivot hardware supports the weight of the door on the bottom arm, creating less stress on the frame and allowing the door to swing smoothly and effortlessly. The Series 7980s uses a low-profile commercial threshold capable of meeting ADA requirements. It includes a Type C lock, top and bottom roller catches to help pull the door in tight, and a 48" tall ladder-style pull handle.

### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

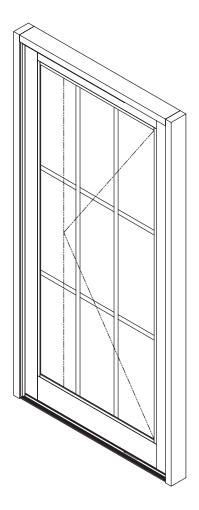
### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	N/A
Test Configuration	36" x 96" X Swing-Out
Air Infiltration (Per ASTM E 283)	.22 cfm/sf @1.57 psf
CSA A440 Air	N/A
Water Resistance (Per ASTM E 547)	0.00 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	AAMA 1304-02
U-Factor (Per NFRC 100)*	0.30
CR (Per NFRC 500)*	66
CRF Frame (Per AAMA 1503)	73



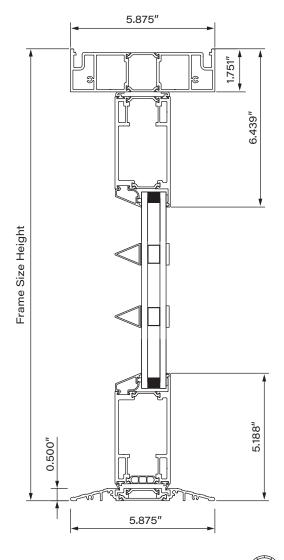


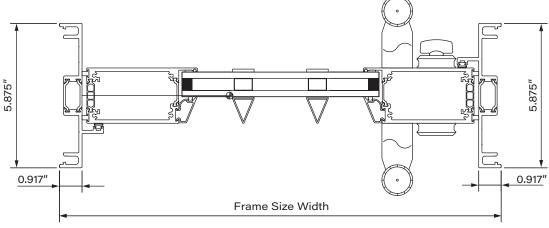
### Series 7980s Pivot Door



- .30 U-value for standard low-E, argon-filled dual-pane glass
- All-climate coated or high-performance glass from Cardinal IG
- Glass can be customized and includes options such as laminated glass, solar- and glare-control glass, enhanced winter performance glass, and lowmaintenance glass
- Pre-applied Cardinal Preserve film protects glass during installation
- Available in widths from 24" to 96" and heights from 24" to 144"
- Doors weighing up to 500 pounds open with ease
- Large glass and a minimal frame allow for more light and a modern style
- Low-profile commercial threshold
- Heavy-duty hardware
- In-stock, designer, split, and custom finishes
- Title 24 compliant (California)

## **Series 7980s Pivot Door**







### Series 7630s Window Wall

The Series 7630s Window Wall provides you the opportunity to replace a traditional exterior wall with huge panels of low-E dual-pane glass. With its ability to integrate with various ventilating window styles and our hinge and sliding doors, it's flexible as well as functional. Available up to heights of 16 feet (depending on the application) and with its 5.875" frame depth, the window wall allows any of our Series 7000s sliding doors, hinged doors, and ventilating windows to be directly mulled to it. The window wall is tested for durability and features a performance grade of CW-PG100 (including a DP100) at sizes up to 60" by 120". Narrow sightlines, beveled glass stops, and coped muntin bars replicate the profiles of steel putty glazed windows used in historic buildings, universities, and commercial projects. The thermally broken aluminum frames feature high-quality anodized or painted finishes.

### **ENERGY EFFICIENCY**

A .29 U-value for standard low-E, dualpane glass gives the door excellent energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. Our signature aluminum extrusion design further reduces energy consumption. The Series 7630s features Energy Star-qualified options and complies with California's rigorous Title 24 requirements.

### **OPTIONS**

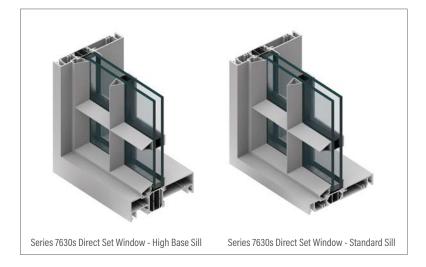
The standard base sill is .875" tall. An optional high base sill is 1.75" tall and is perfect for window walls that sit directly on a finished floor. The standard stop features a classic stepped profile with removable stops for ease of re-glazing and a weeped glazing pocket.

### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

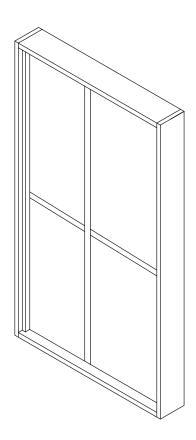
### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG100-60×120-FW
Test Configuration	60" x 120" O
Air Infiltration (Per ASTM E 283)	.01 cfm/sf @1.57 psf
CSA A440 Air	Fixed
Water Resistance (Per ASTM E 547)	12.1 psf
Uniform Load Deflection (Per ASTM E 330)	100 psf
Uniform Load Structural (Per ASTM E 330)	150 psf
Forced Entry Resistance	ASTM F588 Type D Grade 40
U-Factor (Per NFRC 100)*	0.29
CR (Per NFRC 500)*	66
CRF Frame (Per AAMA 1503)	75



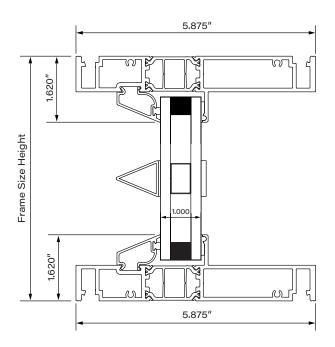


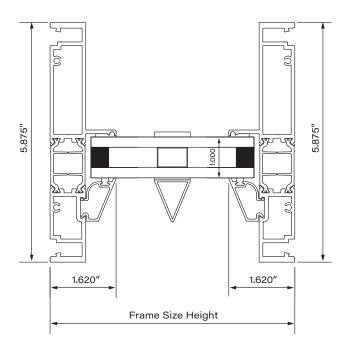
### Series 7630s Window Wall



- .29 U-value for standard low-E, argon-filled dual-pane glass
- All-climate coated or high-performance glass from Cardinal IG
- Glass can be customized and includes options such as laminated glass, solar- and glare-control glass, enhanced winter performance glass, and lowmaintenance glass
- Pre-applied Cardinal Preserve film protects glass during installation
- Performance grade of CW-PG100 at sizes up to  $60" \times 120"$
- Available in sizes up to 16 feet in most markets
- 5.875" frame depth
- Standard and high-base sill options
- In-stock, designer, split, and custom finishes
- Title 24 compliant (California)

## Series 7630s Window Wall







## **Series 7660s Awning Window**

The Series 7660s Awning Window hinges on the top and opens outward from the bottom. Typically wider than it is tall, the awning window is ideal for providing natural light and ventilation. It combines clean design and optimal performance with a commitment to superior craftsmanship. Designed with a 5.875" frame depth, it can be integrated with our hinged doors, sliding doors, and fixed window walls for maximum views and ventilation. It is available in widths from 20" to 60" and heights from 18" to 48." The window is tested for air, water, and structural performance and is certified by the NFRC and AAMA. Narrow sightlines, beveled glass stops, and coped muntin bars replicate the profiles of historic buildings, universities, and commercial projects. The aluminum features high-quality anodized or painted finishes.

#### **ENERGY EFFICIENCY**

A .38 U-value for standard low-E, dual-pane glass gives the window excellent energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. Plus, a signature aluminum extrusion design utilizing custom Insulbar technology further reduces energy consumption.

#### **FEATURES**

A double scissor-arm operator enables easy operation. All fasteners are stainless steel, and the Series 7660s Awning features a hidden multi-point locking system. Designed to create a sleek profile, the Series 7660s features new hinge hardware and contemporary handles. Durable aluminum-frame screens complement the window's clean style. Screen frames match the window frame's color and are mounted to the interior.

### **FINISHES AND COLORS**

Finishes are available in-stock or as designer selections, and they can be customized to match nearly any color. Split finishes are available in many combinations. Bronze Anodized and Satin Anodized come standard with a Class 1 coating thickness for increased smoothness and durability. Our designer colors include a high-quality paint finish that conforms to a minimum rating of AAMA-2605, currently the highest rating for organic finishes.

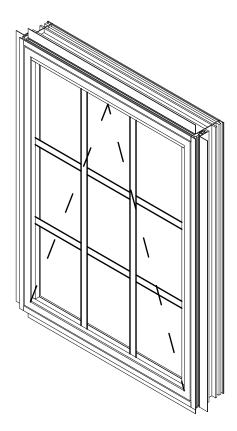
### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG60-60x36-AP
Test Configuration	60" x 36" X
Air Infiltration (Per ASTM E 283)	.06 cfm/sf @1.57 psf
CSA A440 Air	A3
Water Resistance (Per ASTM E 547)	9.2 psf
Uniform Load Deflection (Per ASTM E 330)	60 psf
Uniform Load Structural (Per ASTM E 330)	90 psf
Forced Entry Resistance	ASTM F588 Type B and CAWM 301 Type II
U-Factor (Per NFRC 100)*	0.38
CR (Per NFRC 500)*	59
CRF Frame (Per AAMA 1503)	70



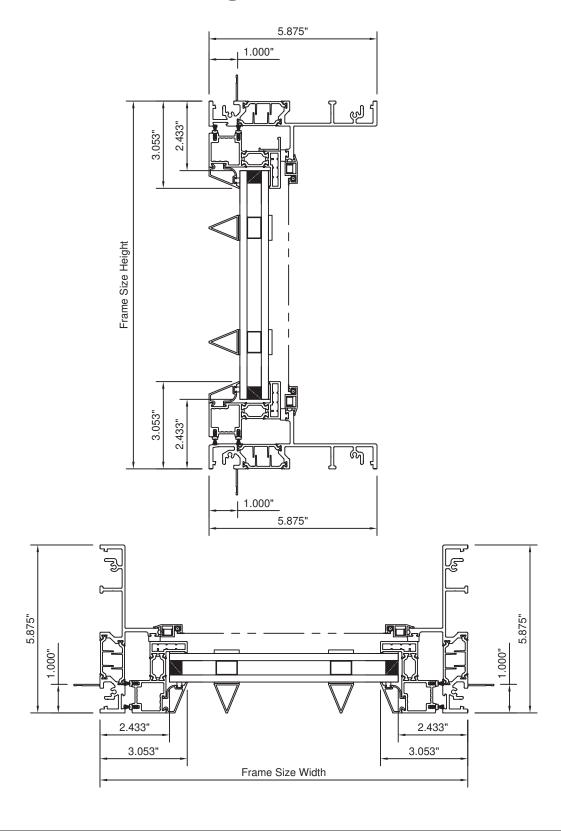


## Series 7660s Awning Window



- 0.38 U-value for standard low-E, argon-filled dual-pane glass
- 0.35 U-value for Cardinal i89 low-E, argon-filled dual-pane glass
- 0.30 U-value for high-performance triple-pane glass
- Available in widths from 20" to 60" and heights from 18" to 48"
- All-climate coated or high-performance glass from Cardinal IG
- Glass can be customized and includes options such as laminated glass, solar- and glare-control glass, enhanced winter performance glass, and lowmaintenance glass
- Pre-applied Cardinal Preserve Film protects glass during installation
- Frame depth of 5.875"
- Performance rating of CW-PG60
- Extruded aluminum screens
- In-stock, designer, split, and custom finishes
- Title 24 compliant (California)

# Series 7660s Awning Window





### **Series 7670s Casement Window**

The Series 7670s Casement Window, which hinges on the side and swings outward to the left or right, combines clean design and optimal performance with a commitment to superior craftsmanship. Designed with a 5.875" frame depth, it can be integrated with our hinged doors, sliding doors, and fixed window walls for maximum views and ventilation. It is available in widths from 18" to 36" and heights from 18" to 95.5." The window is tested for air, water, and structural performance and is certified by the NFRC and AAMA. Narrow sightlines, beveled glass stops, and coped muntin bars replicate the profiles of historic buildings, universities, and commercial projects. The aluminum features high-quality anodized or painted finishes.

### **ENERGY EFFICIENCY**

A .37 U-value for standard low-E, dual-pane glass gives the window excellent energy efficiency. Glass can be customized in a variety of coatings, tints, and thicknesses for improved privacy, protection, and thermal efficiency. Plus, a signature aluminum extrusion design utilizing custom Insulbar technology further reduces energy consumption.

#### **FEATURES**

Butt hinges and a roto operator enable easy operation. All fasteners are stainless steel, and the Series 7670s Casement features a hidden multi-point locking system. Designed to create a sleek profile, the Series 7670s features new hinge hardware and contemporary handles. Durable aluminum-frame screens complement the window's clean style. Screen frames match the window frame's color and are mounted to the interior.

### **PUSH-OUT OPTION**

The Series 7670s Push-Out Casement opens easily with the turn of the handle and a light push. Stainless steel four-bar hinges with an adjustable tensioning device keep the sash in place when open. It is available in widths from 16" to 36" and heights from 16" to 72".

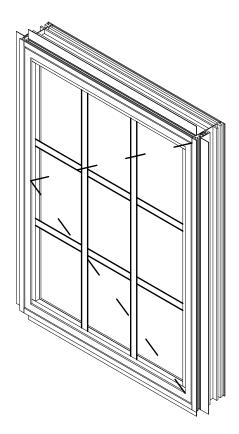
### **PERFORMANCE**

Frame Depth	5 7/8"
AAMA Product Designation (AAMA/WDMA/CSA101/I.S.2/A440 Designation)	CW-PG50-36x94-C
Test Configuration	36" x 94" X
Air Infiltration (Per ASTM E 283)	.02 cfm/sf @1.57 psf
CSA A440 Air	A3
Water Resistance (Per ASTM E 547)	7.5 psf
Uniform Load Deflection (Per ASTM E 330)	50 psf
Uniform Load Structural (Per ASTM E 330)	75 psf
Forced Entry Resistance	ASTM F588 Type B and CAWM 301 Type II
U-Factor (Per NFRC 100)*	0.37
CR (Per NFRC 500)*	60
CRF Frame (Per AAMA 1503)	70





### **Series 7670s Casement Window**



- 0.37 U-value for standard low-E, argon-filled dual-pane glass
- 0.34 U-value for Cardinal i89 low-E, argon-filled dual-pane glass
- 0.29 U-value for high-performance triple-pane glass
- Available in widths from 18" to 36" and heights from 18" to 95.5"
- All-climate coated or high-performance glass from Cardinal IG
- Glass can be customized and includes options such as laminated glass, solar- and glare-control glass, enhanced winter performance glass, and lowmaintenance glass
- Pre-applied Cardinal Preserve Film protects glass during installation
- Frame depth of 5.875"
- Performance rating of CW-PG50
- Extruded aluminum screens
- In-stock, designer, split, and custom finishes
- Title 24 compliant (California)

## **Series 7670s Casement Window**

