

Ultimate Glider

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UGL

11708532

Architectural Detail Manual

Unit Features

Ultimate Glider: UGL

Ultimate Glider Triple Sash: UGL TS

Ultimate Glider Picture: UGLP

Ultimate Glider OXXO: UGL OXXO

Frame:

- Exterior frame thickness: Nominally 1 21/32" (42).
- Base Frame Width standard is 4 9/16" (116).
- Available configurations: UGL (XO, OX, XX, OXXO) UGLTS (XOX), and UGLP (O).
- With a XX operation, there is a beige or white vinyl sash track exposed on exterior sill.

Sash:

- Sash thickness: Nominally 1 9/16" (40).
- Operating sash primary meeting stile is a nominal face 1 23/32" (44) X 1 7/32" (31) thick. Secondary meeting stile is a nominal face 2 3/16" (56) X 1 29/32" (48) thick.
- XO and OX configurations contain a stationary sash and an operating sash that moves horizontally.
- XX configuration contains two operating sash that both move horizontally.
- XOX configuration contains an operator sash to each side of a stationary center sash.
- OXXO configuration contains two operating sash in the center of the unit with two stationary sash to the outside of the unit.
- O configuration contains a single inoperable sash.
- Standard sash sticking profile is Ogee, optional interior Square sticking.
- Different sash option allows unequal sash widths, unique lite cuts for each sash or different glazing in each sash.
- Operating sash is removable for cleaning.

Hardware:

- The glider uses a single handle actuation multi-point lock system and sash retainer bar for tilting or removing the sash to the interior.
- One die cast zinc handle activates one or two latches, depending on the unit height, into one or two keepers on the secondary sash. The bottom of the lock handle is inset approximately 5" (127) from bottom of the sill into the meeting stile of the primary sash and is used to feature a secondary handle, field applied on the secondary sash to assist in operation.
- Latch has an indicator tab that extends when the sash is in a closed position and lock is not locked.
- Factory installed Sash Limiter device is available on operating units. XO, OX and XOX. XO and OX require 1 limiter per window, XOX requires 2 limiters per window. Opening is specified at 4" (102) Net Clear Opening per sash, on an XOX configuration each sash would open 4"(102). Color default; Beige Head Liner/Sill track = Beige sash limiter and White Head Liner/Sill track = White sash limiter. There is no option to pick a color.
- Optional factory applied Window Opening Control Device is available on operating units of the following configurations; XO, OX, XX, and XOX. One device will be applied to each window with the exception of XOX windows which will have 2 devices applied. A device consist a zinc lever housed in a zinc shell on the lower meeting rail of the secondary sash and an acetal stop on the bottom rail of the primary sash. Color: Satin Taupe, White, Bronze, Matte Black, Brass, Antique Brass, Polished Chrome, Satin Chrome, Oil Rubbed Bronze, and Satin Nickel. This device works in accordance to ASTM F2090-17 Standard Specification for Window Fall Prevention Devices with Emergency Escape (Egress) Release Mechanisms.
- XX units will have a secondary handle that aids in the sliding of the secondary sash.
- The standard color of the handle is Satin Taupe. Optional finishes are: White, Bronze, Matte Black, Brass, Antique Brass, Polished Chrome, Satin Chrome, Oil Rubbed Bronze and Satin Nickel.

Combination Storm and Screen:

- Frame: Extruded aluminum frame .045" (1.1) thick. Color: Stone White, Bahama Brown, and Pebble Gray.
- Insect screen: Screen mesh Charcoal Aluminum Wire. Optional: Marvin Bright View™
- Weather strip: Pile weather strip between operating panels and at stiles of main frame. Dual seal weather strip at center rail.
- Hardware: Spring loaded latches to secure storm panel.Metal pulls on sliding storm panels.
- The combination for the two sash units, (XO, OX, and XX) will have 1 active panel.
- The combination for the XOX units will have operating panels on each end.
- No combination available for the OXXO units.

Unit Features Continued

Insect Screens:

- The standard screen is aluminum and fits over the operating sash only for XO and OX operating units.
- XX units will have a screen that covers the entire window opening. The screen will be made in two parts that connect at the meeting stiles of the unit. Full screen optional.
- XOX will have screens that cover the active sash opening; no full unit screen configuration is available.
- OXXO will have a screen that covers the operating sash openings as standard; no full-unit screen configuration available.
- Screen Frame: Window Frame height less than or equal to 54 1/2" Aluminum Screen. Option: Extruded Aluminum Screen Frame. Window Frame height greater than 54 1/2" will be Extruded Screen Frame.
 - Aluminum surround to match exterior frame clad color.
- Screen mesh: Marvin BrightView™, Options: Charcoal Aluminum Wire, Black Aluminum Wire, Bright Aluminum Wire, or Bright Bronze Aluminum Wire.

Weather Strip:

- Exterior frame weather strip is bulb type. The colors are: White, Beige or Black. The default color depends upon the color of the cladding.

Mulling:

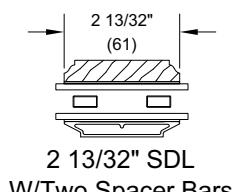
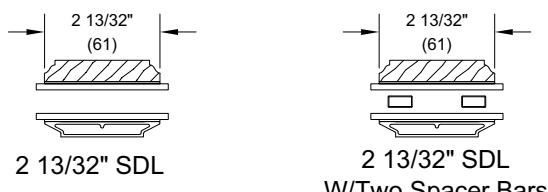
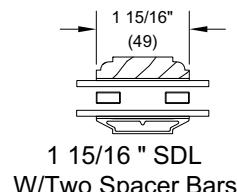
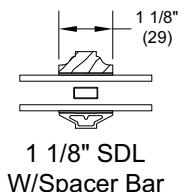
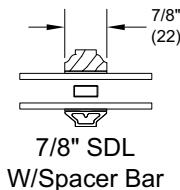
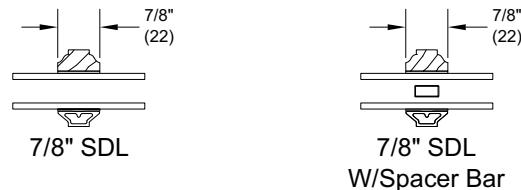
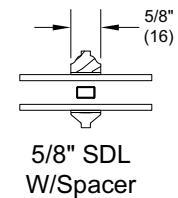
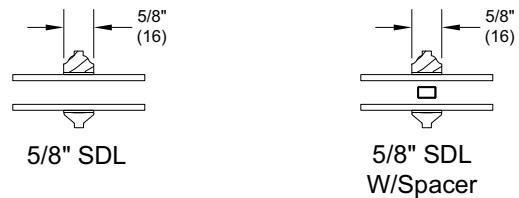
For mull performance, refer to the General Mulling chapter of the ADM.

Glass:

- Glazing seal: Silicone glazed.
- Standard glass is insulating Low E2 Argon or Air.
- Gas Fill: Air or Argon
- Dual-pane glass thickness: 3/4"
- Insulating glass coatings
 - Low E1
 - Low E2
 - Low E3
 - Low ERS
 - Low ELR
- Clear, tints, tempered, obscure and decorative glass options available.
- Insulating glass will be altitude adjusted with capillary tubes for higher elevations. Argon gas is not available for elevations that require capillary tubes.
- Tints:
 - Bronze
 - Gray
 - Green
 - Reflective Bronze
- Decorative glass options:
 - Frost
 - 1/2 English Reed
 - Rain
 - Sandblasted
 - Glue Chip

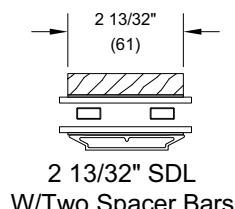
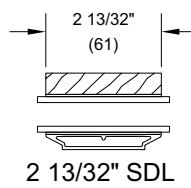
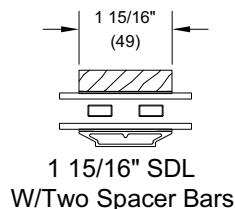
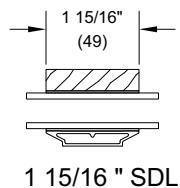
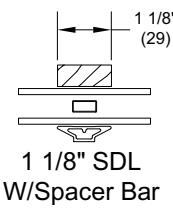
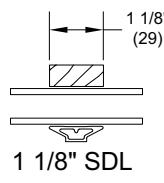
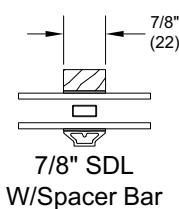
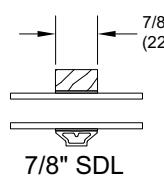
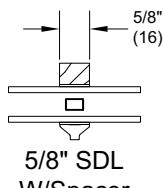
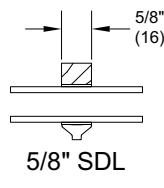
Lock Status Sensor (Optional):

- Refer to **Lock Status Sensor Installation Instructions** for requirements.
- Available Configurations: OX (1 sensor), XO (1 sensor), XOX (2 sensors), OXXO (2 sensors). Not available on XX (both sash active) configurations.
- The Lock Status Sensor detects an open or closed status. A "locked" status is inferred from the presence of the Auto-Lock feature which activates the locking mechanism when the operating panel is closed. It allows easy integration with home automation systems through a wired or wireless connection.
 - For wired option, check with local codes on potential contractor requirements for low voltage networking connections.
 - Wireless option available. Requires purchase of secondary transmitter for operation. Marvin will prep for this option.
- Wireless Lock Status Sensor is located within the width and height of the frame.
- Sensor Location
 - Will always be located behind the top-most keeper on the stationary sash.

Standard Divided Lite Option


NOTE: Due to the inherent qualities of tempered glass, daylight gaps may be seen when using simulated divided lite bars. Daylight gaps could be visible between the internal spacer bar and surface applied bars when viewing from an acute angle to the glass on the following applications:

- Tempered glass over 72" high while using 5/8" SDL bars
- Tempered glass over 91" high while using 7/8" SDL bars.

Optional Interior Square Simulated Divided Lite


NOTE: Due to the inherent qualities of tempered glass, daylight gaps may be seen when using simulated divided lite bars. Daylight gaps could be visible between the internal spacer bar and surface applied bars when viewing from an acute angle to the glass on the following applications:

- Tempered glass over 72" high while using 5/8" SDL bars
- Tempered glass over 91" high while using 7/8" SDL bars.

Egress and Vent Openings: XO, OX, XX

CN	Clear Opening Width		Clear Opening Height		Egress/Vent Opening	
	ft - in	mm	ft - in	mm	ft ²	m ²
3020	1-2 21/64	(364)	1-7 9/32	(490)	1.92	(0.18)
3026	1-2 21/64	(364)	2-1 9/32	(642)	2.52	(0.23)
3030	1-2 21/64	(364)	2-7 9/32	(795)	3.11	(0.29)
3036	1-2 21/64	(364)	3-1 9/32	(947)	3.71	(0.34)
3040	1-2 21/64	(364)	3-7 9/32	(1100)	4.31	(0.40)
3046	1-2 21/64	(364)	4-1 9/32	(1252)	4.90	(0.46)
3050	1-2 21/64	(364)	4-7 9/32	(1404)	5.50	(0.51)
3056	1-2 21/64	(364)	5-1 9/32	(1557)	6.10	(0.57)
3060	1-2 21/64	(364)	5-7 9/32	(1709)	6.69	(0.62)
3620	1-5 21/64	(440)	1-7 9/32	(490)	2.32	(0.22)
3626	1-5 21/64	(440)	2-1 9/32	(642)	3.04	(0.28)
3630	1-5 21/64	(440)	2-7 9/32	(795)	3.76	(0.35)
3636	1-5 21/64	(440)	3-1 9/32	(947)	4.49	(0.42)
3640	1-5 21/64	(440)	3-7 9/32	(1100)	5.21	(0.48)
3646	1-5 21/64	(440)	4-1 9/32	(1252)	5.93	(0.55)
3650	1-5 21/64	(440)	4-7 9/32	(1404)	6.65	(0.62)
3656	1-5 21/64	(440)	5-1 9/32	(1557)	7.37	(0.68)
3660	1-5 21/64	(440)	5-7 9/32	(1709)	8.09	(0.75)
4020	1-8 21/64	(516)	1-7 9/32	(490)	2.72	(0.25)
4026	1-8 21/64	(516)	2-1 9/32	(642)	3.57	(0.33)
4030	1-8 21/64	(516)	2-7 9/32	(795)	4.42	(0.41)
4036	1-8 21/64	(516)	3-1 9/32	(947)	5.26	(0.49)
4040 E	1-8 21/64	(516)	3-7 9/32	(1100)	6.11	(0.57)
4046 E	1-8 21/64	(516)	4-1 9/32	(1252)	6.96	(0.65)
4050 E	1-8 21/64	(516)	4-7 9/32	(1404)	7.80	(0.72)
4056 E	1-8 21/64	(516)	5-1 9/32	(1557)	8.65	(0.80)
4060 E	1-8 21/64	(516)	5-7 9/32	(1709)	9.50	(0.88)
4620	1-11 21/64	(592)	1-7 9/32	(490)	3.12	(0.29)
4626	1-11 21/64	(592)	2-1 9/32	(642)	4.10	(0.38)
4630	1-11 21/64	(592)	2-7 9/32	(795)	5.07	(0.47)
4636 E	1-11 21/64	(592)	3-1 9/32	(947)	6.04	(0.56)

CN	Clear Opening Width		Clear Opening Height		Egress/Vent Opening	
	ft - in	mm	ft - in	mm	ft ²	m ²
4640 E	1-11 21/64	(592)	3-7 9/32	(1100)	7.01	(0.65)
4646 E	1-11 21/64	(592)	4-1 9/32	(1252)	7.98	(0.74)
4650 E	1-11 21/64	(592)	4-7 9/32	(1404)	8.95	(0.83)
4656 E	1-11 21/64	(592)	5-1 9/32	(1557)	9.93	(0.92)
4660 E	1-11 21/64	(592)	5-7 9/32	(1709)	10.90	(1.01)
5020	2-2 21/64	(669)	1-7 9/32	(490)	3.53	(0.33)
5026	2-2 21/64	(669)	2-1 9/32	(642)	4.62	(0.43)
5030 E	2-2 21/64	(669)	2-7 9/32	(795)	5.72	(0.53)
5036 E	2-2 21/64	(669)	3-1 9/32	(947)	6.82	(0.63)
5040 E	2-2 21/64	(669)	3-7 9/32	(1100)	7.91	(0.74)
5046 E	2-2 21/64	(669)	4-1 9/32	(1252)	9.01	(0.84)
5050 E	2-2 21/64	(669)	4-7 9/32	(1404)	10.11	(0.94)
5056 E	2-2 21/64	(669)	5-1 9/32	(1557)	11.20	(1.04)
5060 E	2-2 21/64	(669)	5-7 9/32	(1709)	12.30	(1.14)
5620	2-5 21/64	(745)	1-7 9/32	(490)	3.93	(0.36)
5626	2-5 21/64	(745)	2-1 9/32	(642)	5.15	(0.48)
5630 E	2-5 21/64	(745)	2-7 9/32	(795)	6.37	(0.59)
5636 E	2-5 21/64	(745)	3-1 9/32	(947)	7.59	(0.71)
5640 E	2-5 21/64	(745)	3-7 9/32	(1100)	8.81	(0.82)
5646 E	2-5 21/64	(745)	4-1 9/32	(1252)	10.04	(0.93)
5650 E	2-5 21/64	(745)	4-7 9/32	(1404)	11.26	(1.05)
5656 E	2-5 21/64	(745)	5-1 9/32	(1557)	12.48	(1.16)
5660 E	2-5 21/64	(745)	5-7 9/32	(1709)	13.70	(1.27)
6020	2-8 21/64	(821)	1-7 9/32	(490)	4.33	(0.40)
6026	2-8 21/64	(821)	2-1 9/32	(642)	5.68	(0.53)
6030 E	2-8 21/64	(821)	2-7 9/32	(795)	7.02	(0.65)
6036 E	2-8 21/64	(821)	3-1 9/32	(947)	8.37	(0.78)
6040 E	2-8 21/64	(821)	3-7 9/32	(1100)	9.72	(0.90)
6046 E	2-8 21/64	(821)	4-1 9/32	(1252)	11.06	(1.03)
6050 E	2-8 21/64	(821)	4-7 9/32	(1404)	12.41	(1.15)
6056 E	2-8 21/64	(821)	5-1 9/32	(1557)	13.76	(1.28)
6060 E	2-8 21/64	(821)	5-7 9/32	(1709)	15.10	(1.40)

NOTE:

- E= Window that meets the requirements for Egress. Please note that top of the sill must be no more than 44" (1118) from the floor.
- Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.

Daylight Opening: XO, OX, XX

Ultimate Glider Daylight Opening Measurements OX, XO, XX		Width						
		CN	30		36		40	
		DLO	1-1 9/32	(337)	1-4 9/32	(413)	1-7 9/32	(490)
CN	DLO Height	Standard Bottom Rail						
		ft ²	m ²	ft ²	m ²	ft ²	m ²	
		1.54	(0.14)	1.89	(0.18)	2.24	(0.21)	
		2.09	(0.19)	2.57	(0.24)	3.04	(0.28)	
		2.65	(0.25)	3.25	(0.30)	3.84	(0.36)	
		3.20	(0.30)	3.92	(0.36)	4.65	(0.43)	
		3.75	(0.35)	4.60	(0.43)	5.45	(0.51)	
		4.31	(0.40)	5.28	(0.49)	6.25	(0.58)	
		4.86	(0.45)	5.96	(0.55)	7.06	(0.66)	
		5.41	(0.50)	6.64	(0.62)	7.86	(0.73)	
		5.97	(0.55)	7.31	(0.68)	8.66	(0.80)	
Tall Bottom Rail								
CN	DLO Height	1.46	(0.14)	1.79	(0.17)	2.12	(0.20)	
		2.01	(0.19)	2.47	(0.23)	2.92	(0.27)	
		2.56	(0.24)	3.14	(0.29)	3.72	(0.35)	
		3.12	(0.29)	3.82	(0.36)	4.53	(0.42)	
		3.67	(0.34)	4.50	(0.42)	5.33	(0.50)	
		4.22	(0.39)	5.18	(0.48)	6.13	(0.57)	
		4.78	(0.44)	5.86	(0.54)	6.94	(0.64)	
		5.33	(0.50)	6.54	(0.61)	7.74	(0.72)	
		5.88	(0.55)	7.21	(0.67)	8.54	(0.79)	

Ultimate Glider Daylight Opening Measurements OX, XO, XX		Width							
		CN	46		50		56		
		DLO	1-10 9/32	(566)	2-1 9/32	(642)	2-4 9/32	(718)	2-7 9/32
CN	DLO Height	Standard Bottom Rail							
		ft ²	m ²	ft ²	m ²	ft ²	m ²		
		2.59	(0.24)	2.93	(0.27)	3.28	(0.30)	3.63	(0.34)
		3.51	(0.33)	3.99	(0.37)	4.46	(0.41)	4.93	(0.46)
		4.44	(0.41)	5.04	(0.47)	5.64	(0.52)	6.24	(0.58)
		5.37	(0.50)	6.09	(0.57)	6.82	(0.63)	7.54	(0.70)
		6.30	(0.59)	7.15	(0.66)	7.99	(0.74)	8.84	(0.82)
		7.23	(0.67)	8.20	(0.76)	9.17	(0.85)	10.15	(0.94)
		8.15	(0.76)	9.25	(0.86)	10.35	(0.96)	11.45	(1.06)
		9.08	(0.84)	10.31	(0.96)	11.53	(1.07)	12.75	(1.18)
		10.01	(0.93)	11.36	(1.06)	12.71	(1.18)	14.05	(1.31)
Tall Bottom Rail									
CN	DLO Height	2.45	(0.23)	2.78	(0.26)	3.11	(0.29)	3.44	(0.32)
		3.38	(0.31)	3.83	(0.36)	4.29	(0.40)	4.74	(0.44)
		4.30	(0.40)	4.88	(0.45)	5.46	(0.51)	6.04	(0.56)
		5.23	(0.49)	5.94	(0.55)	6.64	(0.62)	7.35	(0.68)
		6.16	(0.57)	6.99	(0.65)	7.82	(0.73)	8.65	(0.80)
		7.09	(0.66)	8.04	(0.75)	9.00	(0.84)	9.95	(0.92)
		8.02	(0.74)	9.10	(0.85)	10.18	(0.95)	11.26	(1.05)
		8.94	(0.83)	10.15	(0.94)	11.35	(1.05)	12.56	(1.17)
		9.87	(0.92)	11.20	(1.04)	12.53	(1.16)	13.86	(1.29)

NOTE: Daylight Opening values are square footage "per sash."

Egress and Vent Openings: XOX

CN	Opening Width		Opening Height		Egress Opening	
	ft - in	mm	ft - in	mm	ft ²	m ²
6020	1-3 1/32	(382)	1-7 9/32	(490)	2.01	(0.19)
6026	1-3 1/32	(382)	2-1 9/32	(642)	2.64	(0.25)
6030	1-3 1/32	(382)	2-7 9/32	(795)	3.27	(0.30)
6036	1-3 1/32	(382)	3-1 9/32	(947)	3.89	(0.36)
6040	1-3 1/32	(382)	3-7 9/32	(1100)	4.52	(0.42)
6046	1-3 1/32	(382)	4-1 9/32	(1252)	5.15	(0.48)
6050	1-3 1/32	(382)	4-7 9/32	(1404)	5.77	(0.54)
6056	1-3 1/32	(382)	5-1 9/32	(1557)	6.40	(0.59)
6060	1-3 1/32	(382)	5-7 9/32	(1709)	7.03	(0.65)
8020	1-9 1/32	(534)	1-7 9/32	(490)	2.82	(0.26)
8026	1-9 1/32	(534)	2-1 9/32	(642)	3.69	(0.34)
8030	1-9 1/32	(534)	2-7 9/32	(795)	4.57	(0.42)
8036	1-9 1/32	(534)	3-1 9/32	(947)	5.45	(0.51)
8040 E	1-9 1/32	(534)	3-7 9/32	(1100)	6.32	(0.59)
8046 E	1-9 1/32	(534)	4-1 9/32	(1252)	7.20	(0.67)
8050 E	1-9 1/32	(534)	4-7 9/32	(1404)	8.08	(0.75)
8056 E	1-9 1/32	(534)	5-1 9/32	(1557)	8.95	(0.83)
8060 E	1-9 1/32	(534)	5-7 9/32	(1709)	9.83	(0.91)
10020	2-3 1/32	(687)	1-7 9/32	(490)	3.62	(0.34)
10026	2-3 1/32	(687)	2-1 9/32	(642)	4.75	(0.44)
10030 E	2-3 1/32	(687)	2-7 9/32	(795)	5.87	(0.55)
10036 E	2-3 1/32	(687)	3-1 9/32	(947)	7.00	(0.65)
10040 E	2-3 1/32	(687)	3-7 9/32	(1100)	8.13	(0.75)
10046 E	2-3 1/32	(687)	4-1 9/32	(1252)	9.25	(0.86)
10050 E	2-3 1/32	(687)	4-7 9/32	(1404)	10.38	(0.96)
10056 E	2-3 1/32	(687)	5-1 9/32	(1557)	11.51	(1.07)
10060 E	2-3 1/32	(687)	5-7 9/32	(1709)	12.63	(1.17)

CN	Opening Vent Width		Opening Vent Height		Vent Opening	
	ft - in	mm	ft - in	mm	ft ²	m ²
6020	2-6 1/16	(764)	1-7 9/32	(490)	4.03	(0.37)
6026	2-6 1/16	(764)	2-1 9/32	(642)	5.28	(0.49)
6030	2-6 1/16	(764)	2-7 9/32	(795)	6.53	(0.61)
6036	2-6 1/16	(764)	3-1 9/32	(947)	7.79	(0.72)
6040	2-6 1/16	(764)	3-7 9/32	(1100)	9.04	(0.84)
6046	2-6 1/16	(764)	4-1 9/32	(1252)	10.29	(0.96)
6050	2-6 1/16	(764)	4-7 9/32	(1404)	11.54	(1.07)
6056	2-6 1/16	(764)	5-1 9/32	(1557)	12.80	(1.19)
6060	2-6 1/16	(764)	5-7 9/32	(1709)	14.05	(1.31)
8020	3-6 1/16	(1069)	1-7 9/32	(490)	5.64	(0.52)
8026	3-6 1/16	(1069)	2-1 9/32	(642)	7.39	(0.69)
8030	3-6 1/16	(1069)	2-7 9/32	(795)	9.14	(0.85)
8036	3-6 1/16	(1069)	3-1 9/32	(947)	10.89	(1.01)
8040	3-6 1/16	(1069)	3-7 9/32	(1100)	12.65	(1.17)
8046	3-6 1/16	(1069)	4-1 9/32	(1252)	14.40	(1.34)
8050	3-6 1/16	(1069)	4-7 9/32	(1404)	16.15	(1.50)
8056	3-6 1/16	(1069)	5-1 9/32	(1557)	17.90	(1.66)
8060	3-6 1/16	(1069)	5-7 9/32	(1709)	19.66	(1.83)
10020	4-6 1/16	(1373)	1-7 9/32	(490)	7.24	(0.67)
10026	4-6 1/16	(1373)	2-1 9/32	(642)	9.50	(0.88)
10030	4-6 1/16	(1373)	2-7 9/32	(795)	11.75	(1.09)
10036	4-6 1/16	(1373)	3-1 9/32	(947)	14.00	(1.30)
10040	4-6 1/16	(1373)	3-7 9/32	(1100)	16.25	(1.51)
10046	4-6 1/16	(1373)	4-1 9/32	(1252)	18.51	(1.72)
10050	4-6 1/16	(1373)	4-7 9/32	(1404)	20.76	(1.93)
10056	4-6 1/16	(1373)	5-1 9/32	(1557)	23.01	(2.14)
10060	4-6 1/16	(1373)	5-7 9/32	(1709)	25.27	(2.35)

NOTE:

- E= Window that meets the requirements for Egress. Please note that top of the sill must be no more than 44" (1118) from the floor.
- Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.

Daylight Measurements: XOX

Ultimate Glider Daylight Opening Measurements XOX		Width						
		CN	60		80		100	
		DLO	1-1 9/32	(337)	1-7 9/32	(490)	2-1 9/32	(642)
CN	DLO Height	Standard Bottom Rail						
		ft ²	m ²	ft ²	m ²	ft ²	m ²	
		6.98	(0.65)	9.76	(0.91)	12.55	(1.17)	
		9.48	(0.88)	13.27	(1.23)	17.05	(1.58)	
		11.99	(1.11)	16.77	(1.56)	21.56	(2.00)	
		14.49	(1.35)	20.28	(1.88)	26.06	(2.42)	
		17.00	(1.58)	23.78	(2.21)	30.57	(2.84)	
		19.50	(1.81)	27.29	(2.54)	35.07	(3.26)	
		22.01	(2.04)	30.79	(2.86)	39.58	(3.68)	
		24.51	(2.28)	34.30	(3.19)	44.08	(4.10)	
		27.02	(2.51)	37.80	(3.51)	48.59	(4.51)	
Tall Bottom Rail								
CN	DLO Height	6.61	(0.61)	9.24	(0.86)	11.88	(1.10)	
		9.11	(0.85)	12.75	(1.18)	16.39	(1.52)	
		11.62	(1.08)	16.25	(1.51)	20.89	(1.94)	
		14.12	(1.31)	19.76	(1.84)	25.40	(2.36)	
		16.63	(1.54)	23.26	(2.16)	29.90	(2.78)	
		19.13	(1.78)	26.77	(2.49)	34.41	(3.20)	
		21.64	(2.01)	30.27	(2.81)	38.91	(3.61)	
		24.14	(2.24)	33.78	(3.14)	43.42	(4.03)	
		26.65	(2.48)	37.28	(3.46)	47.92	(4.45)	

NOTE: Daylight Opening values are square footage "per sash."

Daylight Measurements: Picture Units

Ultimate Glider Picture Daylight Opening Measurements		Width								
		CN	30		36		40		46	
		DLO	2-4 63/64	(736)	2-10 63/64	(888)	3-4 63/64	(1041)	3-10 63/64	(1193)
CN	DLO Height	Standard Bottom Rail								
		ft ²	m ²	ft ²	m ²	ft ²	m ²	ft ²	m ²	
		3.36	(0.31)	4.06	(0.38)	4.76	(0.44)	5.45	(0.51)	
		4.57	(0.42)	5.52	(0.51)	6.46	(0.60)	7.41	(0.69)	
		5.78	(0.54)	6.97	(0.65)	8.17	(0.76)	9.37	(0.87)	
		6.99	(0.65)	8.43	(0.78)	9.88	(0.92)	11.33	(1.05)	
		8.19	(0.76)	9.89	(0.92)	11.59	(1.08)	13.28	(1.23)	
		9.40	(0.87)	11.35	(1.05)	13.29	(1.23)	15.24	(1.42)	
		10.61	(0.99)	12.80	(1.19)	15.00	(1.39)	17.20	(1.60)	
		11.82	(1.10)	14.26	(1.32)	16.71	(1.55)	19.15	(1.78)	
		13.02	(1.21)	15.72	(1.46)	18.42	(1.71)	21.11	(1.96)	
Tall Bottom Rail										
20	1-3 53/64 (402)	3.18	(0.30)	3.84	(0.36)	4.50	(0.42)	5.16	(0.48)	
		4.39	(0.41)	5.30	(0.49)	6.21	(0.58)	7.12	(0.66)	
		5.60	(0.52)	6.76	(0.63)	7.92	(0.74)	9.08	(0.84)	
		6.81	(0.63)	8.22	(0.76)	9.63	(0.89)	11.03	(1.03)	
		8.01	(0.74)	9.67	(0.90)	11.33	(1.05)	12.99	(1.21)	
		9.22	(0.86)	11.13	(1.03)	13.04	(1.21)	14.95	(1.39)	
		10.43	(0.97)	12.59	(1.17)	14.75	(1.37)	16.91	(1.57)	
		11.64	(1.08)	14.05	(1.30)	16.46	(1.53)	18.86	(1.75)	
		12.84	(1.19)	15.50	(1.44)	18.16	(1.69)	20.82	(1.93)	

Ultimate Glider Picture Daylight Opening Measurements		Width						
		CN	50		56		60	
		DLO	4-4 63/64	(1346)	4-10 63/64	(1498)	5-4 63/64	(1650)
CN	DLO Height	Standard Bottom Rail						
		ft ²	m ²	ft ²	m ²	ft ²	m ²	
		6.15	(0.57)	6.85	(0.64)	7.54	(0.70)	
		8.36	(0.78)	9.30	(0.86)	10.25	(0.95)	
		10.56	(0.98)	11.76	(1.09)	12.96	(1.20)	
		12.77	(1.19)	14.22	(1.32)	15.66	(1.46)	
		14.98	(1.39)	16.68	(1.55)	18.37	(1.71)	
		17.19	(1.60)	19.13	(1.78)	21.08	(1.96)	
		19.39	(1.80)	21.59	(2.01)	23.79	(2.21)	
		21.60	(2.01)	24.05	(2.23)	26.49	(2.46)	
		23.81	(2.21)	26.51	(2.46)	29.20	(2.71)	
Tall Bottom Rail								
20	1-3 53/64 (402)	5.82	(0.54)	6.48	(0.60)	7.14	(0.66)	
		8.03	(0.75)	8.94	(0.83)	9.85	(0.91)	
		10.24	(0.95)	11.40	(1.06)	12.56	(1.17)	
		12.44	(1.16)	13.85	(1.29)	15.26	(1.42)	
		14.65	(1.36)	16.31	(1.52)	17.97	(1.67)	
		16.86	(1.57)	18.77	(1.74)	20.68	(1.92)	
		19.07	(1.77)	21.23	(1.97)	23.39	(2.17)	
		21.27	(1.98)	23.68	(2.20)	26.09	(2.42)	
		23.48	(2.18)	26.14	(2.43)	28.80	(2.68)	

Minimum and Maximum Guidelines

Certified Full Frame Minimum and Maximum Frame Size							
Unit Type		Min Width	Min Height	Max Width	Max Height	Max Glass Size	
		in	0	in	in	Sq. Ft.	Sq. Mtrs.
UGL	OX, XO, XX	23 1/2	17 1/2	29 31/64	35 1/2	10.000	0.929
				71 1/2	71 1/2		
UGLTS	XOX	59.5	17 1/2	71 31/64	35 1/2	Flanker	Flanker
						9.000	0.836
				119 1/2	71 1/2	Center	Center
						26.784	2.488
UGLP	O	14	17 1/2	71 1/2	71 1/2	30.000	2.787
UGLOXXO	OXXO	45 1/64	17 1/2	65 31/64	35 1/2	12.000	1.115
				143 1/2	59 1/2		

Extended Full Frame Minimum and Maximum Frame Size			
Unit Type		Max Width	Max Height
		in	in
UGL	OX, XO, XX	86	74
		96	60
		108	48
		120	36
UGLTS	XOX	120	74
UGLP	O	65	74
		78	65
UGLOXXO	OXXO	167 1/2	71 1/2

Certified Sizes and Ratings: XO, OX, XX, OXXO

Product	Air Tested to psf	Water Tested to psf	Structural Tested to psf	Certification Rating	Design Pressure (DP)	Max Overall Width	Max Overall Height
UGL 6050 XO, OX	1.57	7.5	75	LC-PG50-HS	50	71 1/2"	59 1/2"
UGL 6060 XO, OX	1.57	7.5	60	LC-PG40-HS	40	71 1/2"	71 1/2"
UGL 6046 XX	1.57	7.5	75	LC-PG50-HS	50	71 1/2"	53 1/2"
UGL 6060 XX	1.57	5.25	52.5	LC-PG35-HS	35	71 1/2"	71 1/2"
UGL 6060 (O)	1.57	7.5	60	LC-PG40-FW	40	71 1/2"	71 1/2"
UGL (XOX)	1.57	5.25	52.5	LC-PG35-HS	35	119 1/2"	71 1/2"
UGL (OXXO)	1.57	5.25	52.5	LC-PG35-HS	35	143 1/2"	59 1/2"

Measurement Conversions: XO, OX, XX

Unit Measurements		Width OX, XO, XX			Height	
From	To		in	mm	in	mm
Rough Opening						
OM of Frame	Rough Opening		+ 1	(13)	+ 1/2	(13)
Masonry Opening	Rough Opening		+ 1/2	(06)	+ 1/4	(06)
Masonry Opening w/BMC	Rough Opening		-2 1/8	(27)	-1 11/16	(43)
Masonry Opening w/Flat Casing	Rough Opening		-5 1/2	(70)	-3 3/8	(86)
Sash			in	mm	in	mm
OM of Frame	OM of Primary Sash	÷ 2	-1/2	(13)	-3 1/4	(83)
OM of Frame	OM of Secondary Sash	÷ 2	-2 1/32	(13)	-3 1/4	(83)
Daylight Opening Opening	OM of Primary Sash		+ 3 31/32	(101)	+ 3 17/32	(90)
Daylight Opening Opening	OM of Secondary Sash		+ 5 45/64	(100)	+ 3 17/32	(90)
Glass			in	mm	in	mm
Daylight Opening Opening	Glass		+ 1 1/16	(14)	+ 1 1/16	(27)
Primary Full Screen (Dual)			in	mm	in	mm
OM of Frame	OM of Screen Frame	÷ 2	+ 19/32	(15)	-2 17/64	(58)
Daylight Opening Opening	OM of Screen Frame		+ 3 7/8	(57)	+ 4 17/32	(115)
Secondary Full Screen (Dual)			in	mm	in	mm
OM of Frame	OM of Screen Frame	÷ 2	+ 19/32	(15)	-2 17/64	(58)
Daylight Opening Opening	OM of Screen Frame		+ 3 7/8	(57)	+ 4 17/32	(115)
Active 1/2 Screen			in	mm	in	mm
OM of Frame	OM of Screen Frame	÷ 2	+ 19/32	(15)	-2 17/64	(58)
Daylight Opening Opening	OM of Screen Frame		+ 3 7/8	(57)	+ 4 17/32	(115)
Combo			in	mm	in	mm
OM of Frame	OM of Combo Frame		-2 1/8	(54)	-2 5/32	(55)
Daylight Opening Opening	OM of Combo Frame	× 2	+ 10 13/32	(176)	+ 4 41/64	(118)

Measurement Conversions: XOX and Picture

Unit Measurements		Width XOX		Height		
From	To		in	mm	in	mm
Rough Opening						
OM of Frame	Rough Opening		+ 1	(25)	+ 1/2	(13)
Masonry Opening	Rough Opening		+ 1/2	(13)	+ 1/4	(06)
Masonry Opening w/BMC	Rough Opening		-2 1/8	(54)	-1 11/16	(43)
Masonry Opening w/Flat Casing	Rough Opening		-5 1/2	(140)	-3 3/8	(86)
Sash			in	mm	in	mm
OM of Frame	OM of Primary Sash	÷ 4	-5/8	(16)	-3 1/4	(83)
OM of Frame	OM of Secondary Sash	÷ 2	+ 11/16	(18)	-3 1/4	(83)
Daylight Opening Opening	OM of Primary Sash		+ 3 31/32	(101)	+ 3 17/32	(90)
Daylight Opening Opening	OM of Secondary Sash		+ 4 23/64	(111)	+ 3 17/32	(90)
Glass			in	mm	in	mm
Daylight Opening Opening	Glass		+ 1 1/16	(27)	+ 1 1/16	(27)
Active 1/2 Screen			in	mm	in	mm
Daylight Opening Opening	OM of Screen Frame		+ 3 7/8	(98)	+ 4 17/32	(115)
Combo			in	mm	in	mm
OM of Frame	OM of Combo Frame		-2 1/64	(51)	-2 5/32	(55)
Daylight Opening Opening	OM of Combo Frame	× 4	+ 16 25/64	(416)	+ 4 41/64	(118)

Unit Measurements		Width O		Height		
From	To		in	mm	in	mm
Rough Opening						
OM of Frame	Rough Opening		+ 1	(25)	+ 1/2	(13)
Masonry Opening	Rough Opening		+ 1/2	(13)	+ 1/4	(06)
Masonry Opening w/BMC	Rough Opening		-2 1/8	(54)	-1 11/16	(43)
Masonry Opening w/Flat Casing	Rough Opening		-5 1/2	(140)	-3 3/8	(86)
Sash			in	mm	in	mm
OM of Frame	OM of Sash		-3	(76)	-1 33/64	(38)
Daylight Opening Opening	OM of Sash		+ 3 17/32	(90)	+ 1 49/64	(45)
Glass			in	mm	in	mm
Daylight Opening Opening	Glass		+ 1 1/16	(27)	+ 17/32	(14)

Measurement Conversions: OXXO

Unit Measurements		Width OXXO		Height		
From	To		in	mm	in	mm
Rough Opening						
OM of Frame	Rough Opening		+1	(25)	+ 1/2	(13)
Masonry Opening	Rough Opening		+ 1/2	(13)	+ 1/4	(06)
Masonry Opening w/BMC	Rough Opening		-2 1/8	-(54)	-1 11/16	-(43)
Masonry Opening w/Flat Casing	Rough Opening		-5 1/2	-(140)	-3 3/8	-(86)
Sash			in	mm	in	mm
OM of Frame	OM of Primary Sash	÷ 4	0	(00)	-3 1/4	-(83)
OM of Frame	OM of Secondary Sash	÷ 4	- 1/32	-(01)	-3 1/4	-(83)
Daylight Opening Opening	OM of Primary Sash		+3 63/64	(101)	+ 3 17/32	(90)
Daylight Opening Opening	OM of Secondary Sash		+3 61/64	(100)	+ 3 17/32	(90)
Glass			in	mm	in	mm
Daylight Opening Opening	Glass		+1 1/16	(27)	+ 1 1/16	(27)
OXXO Screen			in	mm	in	mm
Daylight Opening Opening	OM of Screen Frame	x 2	+7 31/32	(203)	+4 35/64	(115)
OM of Frame	OM of Screen Frame	÷ 2	+ 1/64	(00)	-2 15/64	-(57)

Measurement Conversions

Clear Opening: XO, OX, XX

Clear Opening Width = (Frame OM Width / 2) - 3 7/16" (87)

Clear Opening Height = Frame OSM Height - 4 7/32" (107)

Clear Opening Area (ft. ^2) = (Clear Opening Width x Clear Opening Height) / 144

Clear Opening: XOX (1/4, 1/2, 1/4)

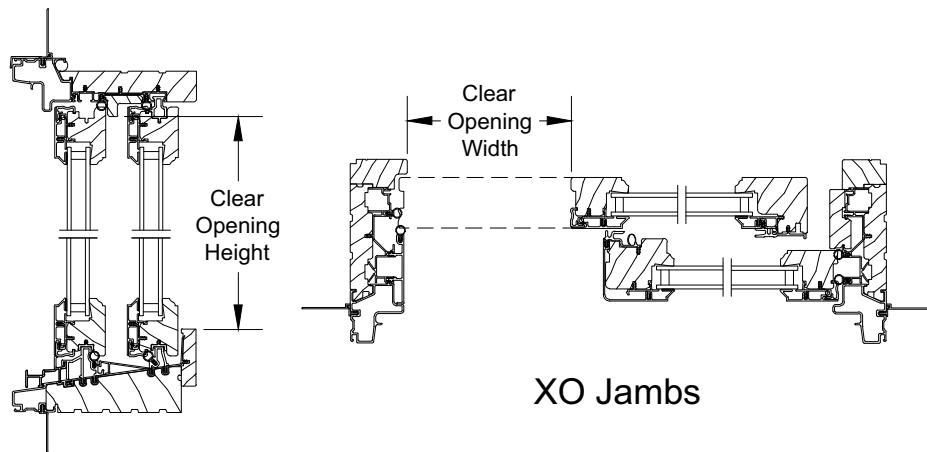
Vent Opening Width = (Frame OM Width / 4) - 2 27/32" (72)

Vent Opening:

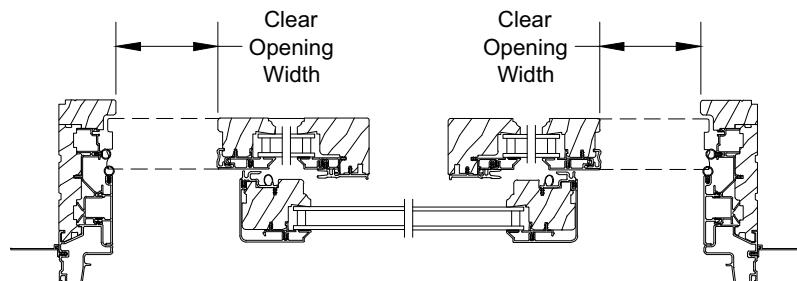
Vent Opening Width = Daylight Opening Width of the operating sash + 1 1/32" (26)

Vent Opening Height = Daylight Opening Height of the operating sash (standard bottom rail unit) + 2 9/16 (65)

Vent Opening Height = Daylight Opening Height of the operating sash (tall bottom rail unit) + 3 7/16" (87)



Head Jamb and Sill



XOX Jambs

Standard Unit Measurements: XO, OX, XX, XOX

Standard Glider Unit Measurements - XO, OX, XX										
Width										
CN	Masonry Opening		Rough Opening		Frame Size		Primary Sash OM		Secondary Sash OM	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft-in	mm
30	3-0	(914)	3-0 1/2	(927)	2-11 1/2	(902)	1-5 1/4	(438)	1-5 7/32	(437)
36	3-6	(1067)	3-6 1/2	(1080)	3-5 1/2	(1054)	1-8 1/4	(514)	1-8 7/32	(514)
40	4-0	(1219)	4-0 1/2	(1232)	3-11 1/2	(1207)	1-11 1/4	(591)	1-11 7/32	(590)
46	4-6	(1372)	4-6 1/2	(1384)	4-5 1/2	(1359)	2-2 1/4	(667)	2-2 7/32	(666)
50	5-0	(1524)	5-0 1/2	(1537)	4-11 1/2	(1511)	2-5 1/4	(743)	2-5 7/32	(742)
56	5-6	(1676)	5-6 1/2	(1689)	5-5 1/2	(1664)	2-8 1/4	(819)	2-8 7/32	(818)
60	6-0	(1829)	6-0 1/2	(1842)	5-11 1/2	(1816)	2-11 1/4	(895)	2-11 7/32	(895)
									2-10 9/16	(878)
									31 9/32	(794)

Standard Glider Unit Measurements - XO, OX, XX										
Height										
CN	Masonry Opening		Rough Opening		Frame Size		Sash OM		Screen OM	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft-in	mm
20	1-11 3/4	(603)	2-0	(610)	1-11 1/2	(597)	1-8 1/4	(514)	1-9 1/4	(540)
26	2-5 3/4	(756)	2-6	(762)	2-5 1/2	(749)	2-2 1/4	(667)	2-3 1/4	(692)
30	2-11 3/4	(908)	3-0	(914)	2-11 1/2	(902)	2-8 1/4	(819)	2-9 1/4	(845)
36	3-5 3/4	(1060)	3-6	(1067)	3-5 1/2	(1054)	3-2 1/4	(972)	3-3 1/4	(997)
40	3-11 3/4	(1213)	4-0	(1219)	3-11 1/2	(1207)	3-8 1/4	(1124)	3-9 1/4	(1149)
46	4-5 3/4	(1365)	4-6	(1372)	4-5 1/2	(1359)	4-2 1/4	(1276)	4-3 1/4	(1302)
50	4-11 3/4	(1518)	5-0	(1524)	4-11 1/2	(1511)	4-8 1/4	(1429)	4-9 1/4	(1454)
56	5-5 3/4	(1670)	5-6	(1676)	5-5 1/2	(1664)	5-2 1/4	(1581)	5-3 1/4	(1607)
60	5-11 3/4	(1822)	6-0	(1829)	5-11 1/2	(1816)	5-8 1/4	(1734)	5-9 1/4	(1759)

Standard Glider Unit Measurements - XOX										
Width										
CN	Masonry Opening		Rough Opening		Frame Size		Flanker Sash OM		Center Sash OM	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft-in	mm
60	6-0	(1829)	6-0 1/2	(1842)	5-11 1/2	(1816)	1-5 1/4	(438)	3-1 15/16	(964)
80	8-0	(2438)	8-0 1/2	(2451)	7-11 1/2	(2426)	1-11 1/4	(591)	4-1 15/16	(1268)
100	10-0	(3048)	10-0 1/2	(3061)	9-11 1/2	(3035)	2-5 1/4	(743)	5-1 15/16	(1573)

Standard Glider Unit Measurements - XOX										
Height										
CN	Masonry Opening		Rough Opening		Frame Size		Sash OM		Screen OM	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft-in	mm
20	1-11 3/4	(603)	2-0	(610)	1-11 1/2	(597)	1-8 1/4	(514)	1-9 15/64	(539)
26	2-5 3/4	(756)	2-6	(762)	2-5 1/2	(749)	2-2 1/4	(667)	2-3 15/64	(692)
30	2-11 3/4	(908)	3-0	(914)	2-11 1/2	(902)	2-8 1/4	(819)	2-9 15/64	(844)
36	3-5 3/4	(1060)	3-6	(1067)	3-5 1/2	(1054)	3-2 1/4	(972)	3-3 15/64	(997)
40	3-11 3/4	(1213)	4-0	(1219)	3-11 1/2	(1207)	3-8 1/4	(1124)	3-9 15/64	(1149)
46	4-5 3/4	(1365)	4-6	(1372)	4-5 1/2	(1359)	4-2 1/4	(1276)	4-3 15/64	(1301)
50	4-11 3/4	(1518)	5-0	(1524)	4-11 1/2	(1511)	4-8 1/4	(1429)	4-9 15/64	(1454)
56	5-5 3/4	(1670)	5-6	(1676)	5-5 1/2	(1664)	5-2 1/4	(1581)	5-3 15/64	(1606)
60	5-11 3/4	(1822)	6-0	(1829)	5-11 1/2	(1816)	5-8 1/4	(1734)	5-9 15/64	(1759)

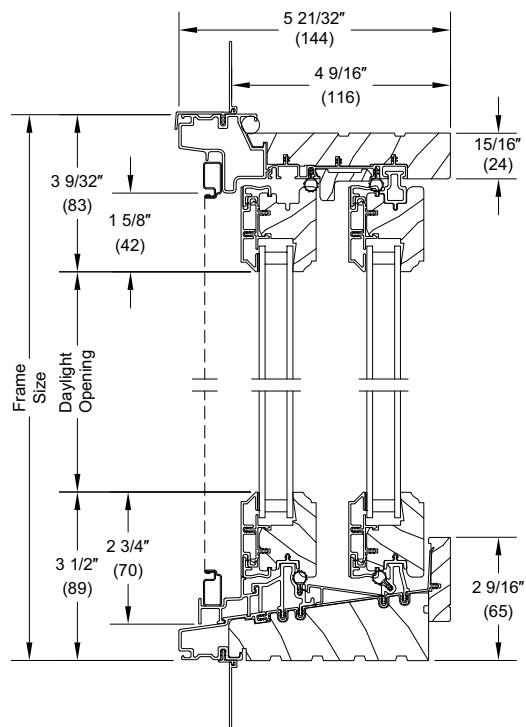
Standard Unit Measurements: Picture

Standard Glider Unit Measurements - O						
Width						
CN	Masonry Opening	Rough Opening	Frame Size	Sash OM		Daylight Opening
	ft - in mm	ft - in mm	ft - in mm	ft-in mm	in mm	
30	3-0 (914)	3-0 1/2 (927)	2-11 1/2 (902)	2-8 33/64 (826)	28 63/64 (736)	
36	3-6 (1067)	3-6 1/2 (1080)	3-5 1/2 (1054)	3-2 33/64 (978)	34 63/64 (888)	
40	4-0 (1219)	4-0 1/2 (1232)	3-11 1/2 (1207)	3-8 33/64 (1131)	40 63/64 (1041)	
46	4-6 (1372)	4-6 1/2 (1384)	4-5 1/2 (1359)	4-2 33/64 (1283)	46 63/64 (1193)	
50	5-0 (1524)	5-0 1/2 (1537)	4-11 1/2 (1511)	4-8 33/64 (1435)	52 63/64 (1346)	
56	5-6 (1676)	5-6 1/2 (1689)	5-5 1/2 (1664)	5-2 33/64 (1588)	58 63/64 (1498)	
60	6-0 (1829)	6-0 1/2 (1842)	5-11 1/2 (1816)	5-8 33/64 (1740)	64 63/64 (1650)	

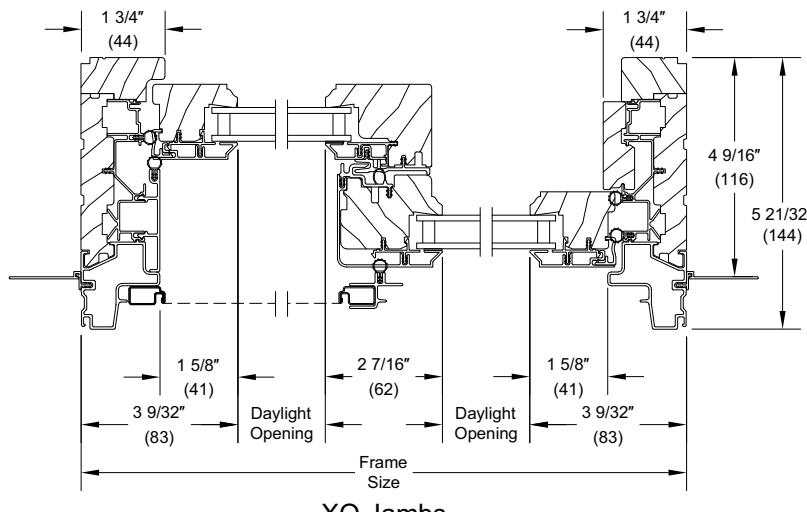
Standard Glider Unit Measurements - O						
Height						
CN	Masonry Opening	Rough Opening	Frame Size	Sash OM		Daylight Opening
	ft - in mm	ft - in mm	ft - in mm	ft-in mm	in mm	
20	1-11 3/4 (603)	2-0 (610)	1-11 1/2 (597)	1-8 1/4 (514)	16 23/32 (425)	
26	2-5 3/4 (756)	2-6 (762)	2-5 1/2 (749)	2-2 1/4 (667)	22 23/32 (577)	
30	2-11 3/4 (908)	3-0 (914)	2-11 1/2 (902)	2-8 1/4 (819)	28 23/32 (729)	
36	3-5 3/4 (1060)	3-6 (1067)	3-5 1/2 (1054)	3-2 1/4 (972)	34 23/32 (882)	
40	3-11 3/4 (1213)	4-0 (1219)	3-11 1/2 (1207)	3-8 1/4 (1124)	40 23/32 (1034)	
46	4-5 3/4 (1365)	4-6 (1372)	4-5 1/2 (1359)	4-2 1/4 (1276)	46 23/32 (1187)	
50	4-11 3/4 (1518)	5-0 (1524)	4-11 1/2 (1511)	4-8 1/4 (1429)	52 23/32 (1339)	
56	5-5 3/4 (1670)	5-6 (1676)	5-5 1/2 (1664)	5-2 1/4 (1581)	58 23/32 (1491)	
60	5-11 3/4 (1822)	6-0 (1829)	5-11 1/2 (1816)	5-8 1/4 (1734)	64 23/32 (1644)	

Section Details: Operating/Triple Sash

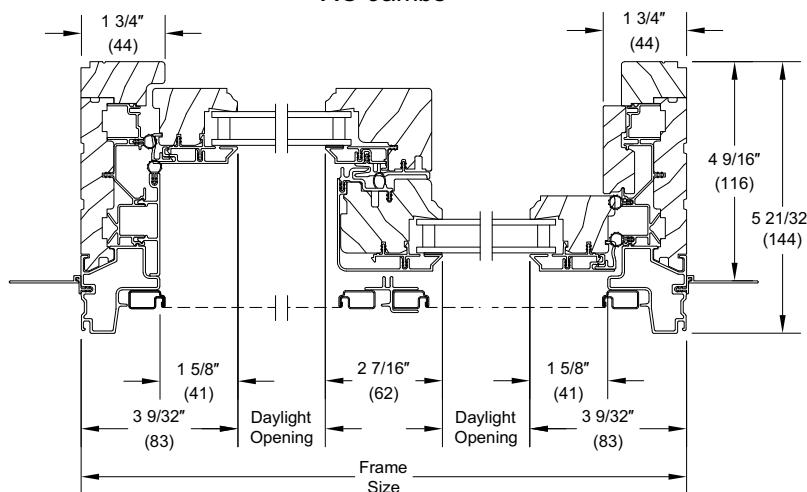
Scale: 3" = 1' 0"



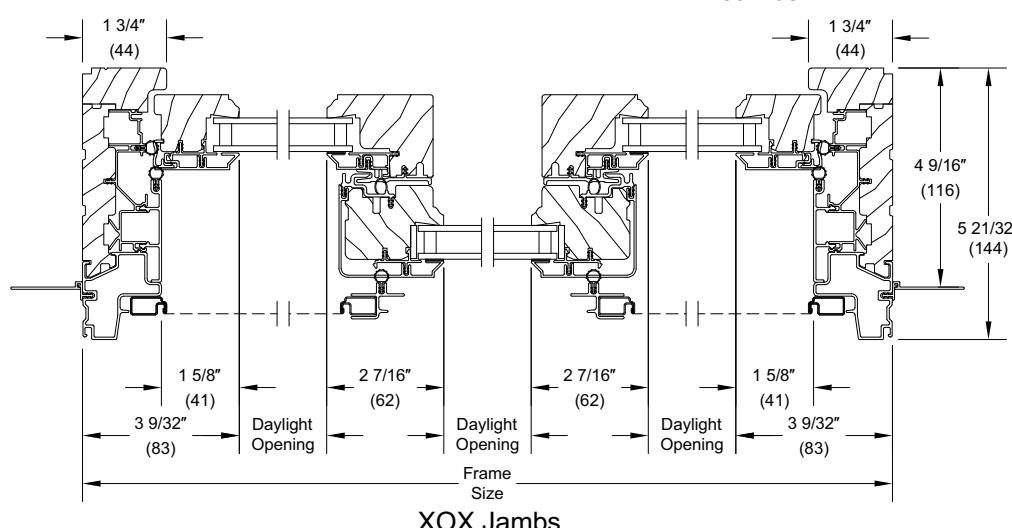
Head Jamb and Sill



XO Jambs



XX Jambs

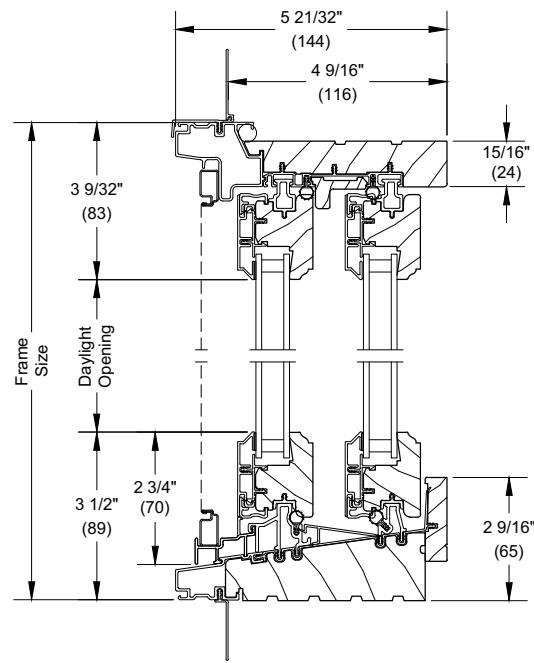


XOX Jambs

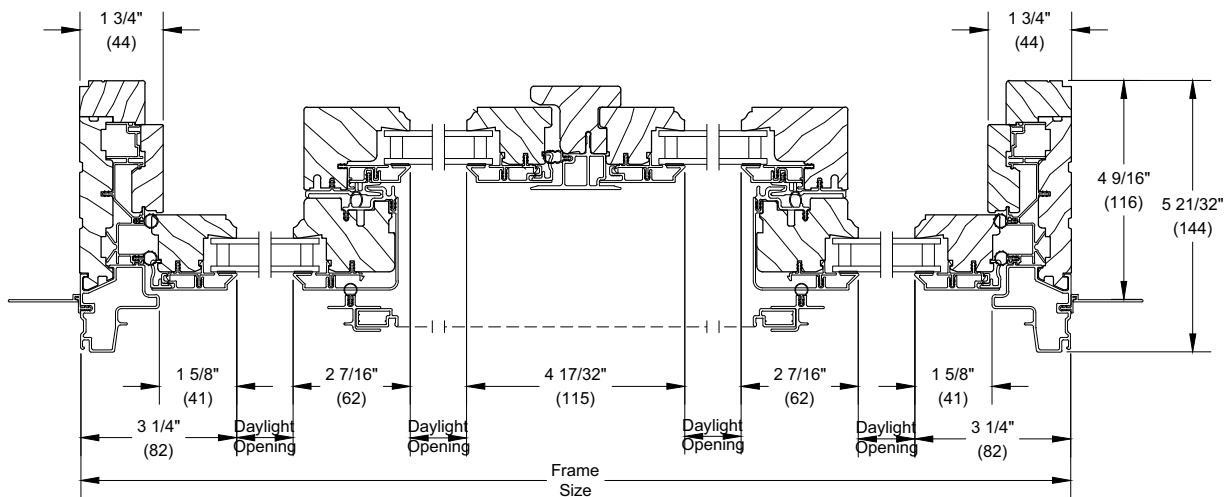
NOTE: Square sticking is the default for the contemporary product.

Section Details: Operating OXXO

Scale: 3" = 1' 0"



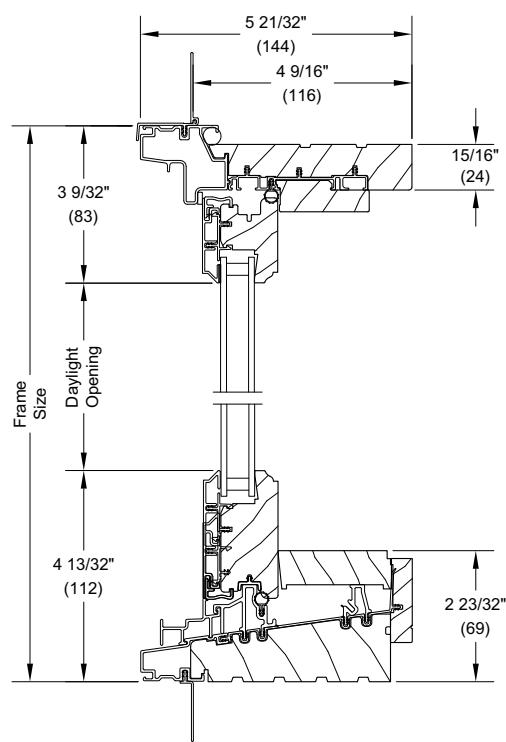
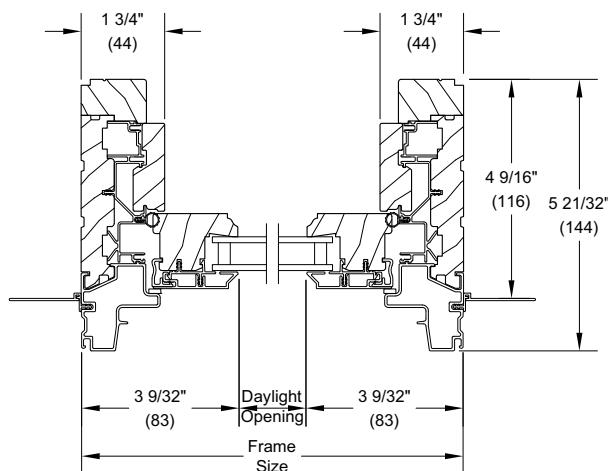
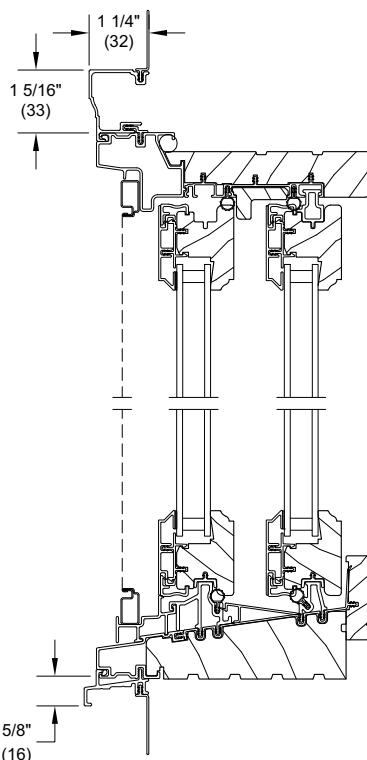
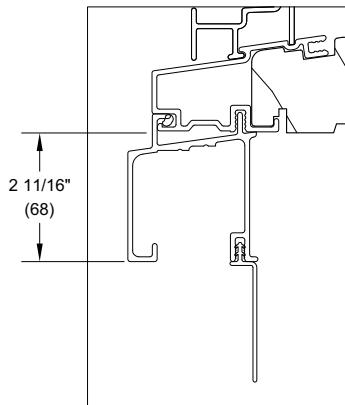
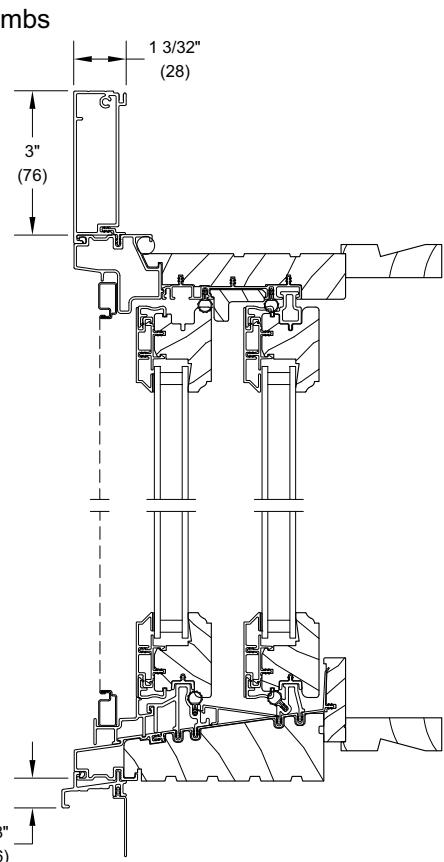
Head Jamb and Sill



OXXO Jambs

Section Details: Picture w/Tall Bottom Rail and Casing Options

Scale: 3" = 1' 0"


Picture

Head Jamb and Sill
Casing Options

**Head Jamb and Sill with
Clad Brick Mould Casing**

**Sill with 2" (51)
extruded subsill**

Clad Flat Casing