

# CHAPTER 11C

## CLAD ROUND TOP ULTIMATE DOUBLE HUNG CLAD ROUND TOP ULTIMATE DH MAGNUM

### **Clad Round Top Ultimate Double Hung**

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### **Clad Round Top Ultimate Double Hung Magnum**

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#### **NOTE:**

Specifications and technical data are subject to change without notice.

Allow 1/16" (2) tolerance on all measurements.

Metric measurements are shown in parenthesis.

For accessories dimensions and applications see the Accessories section of this manual.

For technical assistance about Marvin products you may call our Architectural Hotline 1-800-346-3363 or visit our website: [www.Marvin.com](http://www.Marvin.com).

# CLAD ROUND TOP ULTIMATE DOUBLE HUNG

## UNIT FEATURES

### **Frame:**

- Interior: Pine wood interior standard. Optional white oak, cherry, mahogany, vertical grain Douglas fir
- Exterior: Extruded aluminum, .065" (1.7) thick
- Frame thickness: 1 11/32" (34)
- Sill thickness: 1 7/16" (37)
- Frame width: 4 9/16" (116)

### **Sash:**

- Interior: Pine wood interior standard. Optional white oak, cherry, mahogany, vertical grain Douglas fir
- Exterior: Extruded aluminum, .065" (1.7) thick
- Sash thickness: 1 5/8" (41 mm)
- Picture Sash thickness: 1 29/32" (48)
- Picture/Transom sash stile width: 2 13/32" (61)
- Picture/Transom Top sash rail width: 2 13/32" (61)
- Transom bottom rail width: 2 5/8" (67)
- Picture bottom rail width: 3 13/16" (97)

### **Interior and exterior finish:**

- Interior finish: treated bare wood or white primed (pine only)
- Exterior finish: Two coat finish system using Kynar® or Hylar® resins, meets or exceeds AAMA 2605 requirements.
- Standard Color: Stone White, Bahama Brown, Bronze, Pebble Gray, Evergreen. Select Color: Sierra White, Coconut Cream, French Vanilla, Cashmere, Desert Beige, Cumulus Gray, Cadet Gray, Ebony, Arctic White, Cascade Blue, Cobalt Blue, Hampton Sage, Sherwood Green and Wineberry. Contact your Marvin representative for details on custom colors.

### **Hardware:**

- Balance system: Coil spring block and tackle with nylon cord and glass filled nylon clutch
- Jamb carrier: Vinyl extrusion with wood and aluminum inserts. Color: Beige
- Lock: High pressure zinc die-cast cam lock and keeper. Color: Satin Taupe. Optional: White, Brass, Satin Chrome, Antique Brass, Bronze, Oil Rubbed Bronze, Satin Nickel

### **Weather Stripping:**

- Frame weather stripped with flexible gaskets. Sash weather stripped with combination bulb and leaf weather strip

### **Jamb Extensions:**

- Jamb extensions available for various wall thickness factory applied, finish to match interior

### **Insect Screens:**

- Aluminum screen: Standard full screen, optional half screen. Half screen covers bottom sash opening. Standard Color: Stone White, Bahama Brown, Bronze, Pebble Gray, Evergreen. Select Color: Sierra White, Coconut Cream, French Vanilla, Cashmere, Desert Beige, Cumulus Gray, Cadet Gray, Ebony, Arctic White, Cascade Blue, Cobalt Blue, Hampton Sage, Sherwood Green and Wineberry. Contact your Marvin representative for details on custom colors.
- Screen mesh: 18 by 16 Charcoal fiberglass. Optional screen mesh: Charcoal aluminum wire, Black aluminum wire, Bright aluminum wire, Bright bronze wire

### **Removable Interior Grilles:**

- Bar: Pine wood, 3/4" (19) or 1 1/8" (29) wide
- Pattern: Rectangular, custom lite layouts available, contact your Marvin representative

### **Interior / Exterior Simulated Divided Lite (SDL):**

- Interior bar: 7/8" (22) or 1 1/8" (29) wide bars. Pine wood standard, optional white oak, cherry, mahogany or vertical grain Douglas fir. Finish to match interior
- Exterior bar: Extruded aluminum clad, 7/8" (22) or 1 1/8" (29) wide bars, finish to match exterior
- Pattern: Rectangular, custom lite layouts available, contact your Marvin representative
- Installation method: Factory applied with acrylic foam tape

### **Grilles-between-the-glass (GBG):**

- 11/16" (17mm) white contoured aluminum bar. Optional flat aluminum spacer bar, contact your Marvin representative

### **Glass and Glazing:**

- Glazing method: Insulated glass, hermetically sealed
- Glazing seal: Silicon glazed
- Glazing type: Clear glass, optional glass types: Low E II with argon, Laminated, Tempered, Obscure, Bronze tint, Gray tint, and Reflective Bronze
- Insulated glass will be altitude adjusted for higher elevations, argon gas not included

### **Accessories:**

- Installation brackets: 6 3/8" (162), 9 3/8" (238), or 15 3/8" (390)
- Masonry brackets: 6" (152) or 10" (254)
- Nailing fin: Head jamb fin/drip cap, side jamb and sill fin. Head nailing fin with drip cap not designed to replace proper flashing
- Marvin SillGuard™
- Aluminum extrusions: Brick mould casing, Flat casing, various special casings, Mullion cover, Frame expander, Mullion expander, Jamb extender

### **NOTE:**

Values shown in parenthesis represent metric equivalents  
For product specifications please refer to the CSI Product Specifications, contact your Marvin representative

# CLAD ROUND TOP ULTIMATE DOUBLE HUNG

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## NFRC VALUES / MINIMUM AND MAXIMUM MEASUREMENTS / DESIGN PRESSURES

NFRC Unit Values					
Glazing Type	U-Factor	R-Value	Solar Heat Gain Coefficient	Visible Light Transmittance	Energy Star
<b>Clad Round Top Ultimate Double Hung In-Sash</b>					
<b>Size Tested</b>	<b>47 x 59</b>	<b>47 x 59</b>	<b>47 x 59</b>	<b>47 x 59</b>	
Insulating glass	0.48	2.08	0.55	0.58	-
Insulating glass - SDL	0.48	2.08	0.49	0.51	-
Insulating glass - SDL with spacer bars	0.49	2.04	0.49	0.51	-
Insulating Low E II glass	0.37	2.70	0.30	0.51	NC, SC, S
Insulating Low E II glass - SDL	0.37	2.70	0.27	0.45	NC, SC, S
Insulating Low E II glass - SDL with spacer bars	0.38	2.63	0.27	0.45	NC, SC, S
Insulating Low E II glass - Argon	0.33	3.03	0.30	0.51	N, NC, SC, S
Insulating Low E II glass - Argon, SDL	0.33	3.03	0.27	0.45	N, NC, SC, S
Insulating Low E II glass - Argon, SDL with spacer bars	0.34	2.94	0.27	0.45	N, NC, SC, S
<b>Clad Round Top Ultimate Double Hung In-Sash Picture / Transom</b>					
<b>Size Tested</b>	<b>48 x 48</b>	<b>48 x 48</b>	<b>48 x 48</b>	<b>48 x 48</b>	
Insulating glass	0.48	2.08	0.57	0.59	-
Insulating glass - SDL	0.48	2.08	0.51	0.52	-
Insulating glass - SDL with spacer bars	0.48	2.08	0.51	0.52	-
Insulating Low E II glass	0.35	2.86	0.31	0.52	N, NC, SC, S
Insulating Low E II glass - SDL	0.35	2.86	0.29	0.46	N, NC, SC, S
Insulating Low E II glass - SDL with spacer bars	0.36	2.78	0.29	0.46	N, NC, SC, S
Insulating Low E II glass - Argon	0.31	3.23	0.31	0.52	N, NC, SC, S
Insulating Low E II glass - Argon, SDL	0.31	3.23	0.29	0.46	N, NC, SC, S
Insulating Low E II glass - Argon, SDL with spacer bars	0.33	3.03	0.29	0.46	N, NC, SC, S

**NOTE:**

Product Values are determined using the National Fenestration Rating Council (NFRC) Procedures for determining fenestration product values.

**U-Value:** (Btu/hr-sq ft-°F) Lower the U-Value, the greater the resistance to heat flow and better its insulating value.

**R-Value:** (1/U-Value) Higher the R-Value, the greater the resistance to heat flow and better its insulating value.

**Visible Light Transmittance (VLT):** Percentage of visible light transmitted through the unit.

**Solar Heat Gain Coefficient (SHGC):** The lower a window's SHGC, the less solar heat it transmits, and the greater its shading ability.

Capillary tubes are required for IG units at high elevations. Argon will not be furnished in units with capillary tubes.

Contact the Architectural Department Hotline at (800-346-3363) for additional NFRC Unit Values.

Minimum and Maximum Measurements	
<b>Clad Round Top Ultimate Double Hung In-Sash and Single Hung Operators</b>	
(The Maximums listed below are based on the square footage of Rectangular Rough Opening)	
<b>Round Top Shape</b>	<b>Maximum Rough Opening</b>
RT2, RT6, RT30, RT9, RT10 RT21 thru RT24, RT33, RT34 RT45, RT 46	46 3/8" x 88 1/2" (1178 x 2248) <b>Maximum Square Feet of Rough Opening 28.5</b>
(The Minimums listed below are based on the square footage of Rectangular Rough Opening)	
RT2, RT6, RT30, RT9, RT10 RT21 thru RT24, RT33, RT34 RT45, RT46	14 3/8" x 34 1/2" (365 x 876) <b>Minimum Top Sash Daylight Opening Springline Height 11"</b> <b>Minimum Frame Radius 11 1/4"</b>
<b>NOTE:</b>	
RT6: If the distance from the springline to the top of the head jamb exceeds 1/3 of the R.O. width, the shape must be changed to RT2 to manufacture	

\* All quarter rounds and ellipticals must be single hung.

### Design Pressures

Clad Round Top Ultimate Double Hung are rated DP35 up to call number 4036.

# CLAD ROUND TOP ULTIMATE DOUBLE HUNG

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## MEASUREMENT CONVERSIONS / MULLING GUIDE

Measurement Conversions - Clad Round Top Ultimate Double Hung In-Sash Operator													
Size Referenced	Daylight Opening (DLO)	Glass Size (GS)	Frame Size	Rough Opening	Masonry Opening (Without Casing)	Masonry Opening (With Brick Mould Casing)	Masonry Opening (With Flat Casing)	Dimension Needed					
Daylight Opening (DLO)	Width		+ 1 5/16" (33)	Width	+ 6 7/16" (164)	Width	+ 7 7/16" (189)	Width	+ 6 15/16" (176)	Width	+ 9 9/16" (243)	Width	+ 12 15/16" (329)
	Height		+ 1 5/16" (33)	Height	DLO x 2 + 10 1/2" (267)	Height	DLO x 2 + 11" (279)	Height	DLO x 2 + 10 3/4" (273)	Height	DLO x 2 + 12 11/16" (322)	Height	DLO x 2 + 14 3/8" (365)
Glass Size (GS)	Width	- 1 5/16" (33)	Width	+ 5 1/8" (130)	Width	+ 6 1/8" (156)	Width	+ 5 5/8" (143)	Width	+ 8 1/4" (210)	Width	+ 11 5/8" (295)	
	Height	- 1 5/16" (33)		Height	GS x 2 + 8 1/8" (206)	Height	GS x 2 + 8 5/8" (219)	Height	GS x 2 + 8 3/8" (213)	Height	GS x 2 + 10 5/16" (262)	Height	GS x 2 + 12" (305)
Frame Size	Width	- 6 7/16" (164)	Width	- 5 1/8" (130)	Width	+ 1" (25)	Width	+ 1/2" (13)	Width	+ 3 1/8" (79)	Width	+ 6 1/2" (165)	
	Height	- 10 1/2" + 2 (267)	Height	- 8 1/8" + 2 (200)		Height	+ 1/2" (13)	Height	+ 1/4" (6)	Height	+ 2 3/16" (56)	Height	+ 3 7/8" (98)
Rough Opening	Width	- 7 7/16" (189)	Width	- 6 1/8" (156)	Width	- 1" (25)	Width	- 1/2" (13)	Width	+ 2 1/8" (54)	Width	+ 5 1/2" (140)	
	Height	- 11" + 2 (279)	Height	- 8 5/8" + 2 (213)		Height		- 1/4" (6)	Height	+ 1 11/16" (43)	Height	+ 3 3/8" (86)	
Masonry Opening (Without Casing)	Width	- 6 15/16" (176)	Width	- 5 5/8" (143)	Width	- 1/2" (13)	Width	+ 1/2" (13)	Width	+ 2 5/8" (67)	Width	+ 6" (152)	
	Height	- 10 3/4" + 2 (273)	Height	- 8 3/8" + 2 (206)	Height	- 1/4" (6)	Height	+ 1/4" (6)		Height	+ 1 15/16" (49)	Height	+ 3 5/8" (92)
Masonry Opening (With Brick Mould Casing)	Width	- 9 9/16" (2243)	Width	- 8 1/4" (210)	Width	- 3 1/8" (79)	Width	- 2 1/8" (54)	Width	- 2 5/8" (67)	Width	+ 3 3/8" (86)	
	Height	- 12 11/16" + 2 (322)	Height	- 10 5/16" + 2 (262)	Height	- 2 3/16" (56)	Height	- 1 11/16" (43)		Height		- 1 15/16" (49)	Height
Masonry Opening (With Flat Casing)	Width	- 12 15/16" (329)	Width	- 11 5/8" (295)	Width	- 6 1/2" (165)	Width	- 5 1/2" (140)	Width	- 6" (152)	Width	- 3 3/8" (86)	
	Height	- 14 3/8" + 2 (365)	Height	- 12" + 2 (298)	Height	- 3 7/8" (98)	Height	- 3 3/8" (86)	Height	- 3 5/8" (92)		Height	- 1 11/16" (43)

Double Hung Round Tops Guide for Mulling to Standard Rectangular Units					
Unit Type	RT Call Number	RT Shape Number	Unit Type	RT Call Number	RT Shape Number
1W20 DH	RT25__DH DG CRT2015DHT In-Sash RT20__DHT In-Sash RT25__DH Operator	RT6 RT2 RT6 RT6	1W36 DH or 1W40 DHP	RT4120DH DG RT41__DH DG RT40__DHP In-Sash CRT3623DHT In-Sash RT36__DH In-Sash RT36__DH Operator	RT1 RT6 RT6 RT2 RT6 RT6
1W24 DH	RT2914DH DG RT29__DH DG CRT2417DHT In-Sash RT24__DH In-Sash RT24__DH Operator	RT1 RT6 RT2 RT6 RT6	1W40 DH	RT4522DH DG RT45__DH DG CRT4025DHT In-Sash RT40__DH In-Sash RT40__DH Operator	RT1 RT6 RT2 RT6 RT6
1W26 DH	RT3115DH DG RT31__DH DG CRT2618DHT In-Sash	RT1 RT6 RT2	2W20 DH	RT5025DH DG RT5118DH DG RT51__DH DG CRT5027DHT In-Sash RT50__DHT In-Sash	RT1 RT29 RT6 RT2 RT6
1W28 DH	RT3316DH DG RT33__DH DG CRT2819DHT In-Sash RT28__DHT In-Sash RT28__DH Operator	RT1 RT6 RT2 RT6 RT6	2W24DH	RT5828DH DG RT5918DH DG RT59__DH DG CRT5831DHT In-Sash RT58__DHT In-Sash	RT1 RT29 RT6 RT2 RT6
1W30 DH	RT3517DH DG RT35__DH DG CRT3020DHT In-Sash	RT1 RT6 RT2	2W28DH	RT6632DH RT6718DH RT67__DH CRT6635DHT In-Sash RT66__DHT In-Sash	RT1 RT29 RT6 RT2 RT6
1W32 DH	RT3718DH DG RT37__DH DG CRT3221DHT In-Sash RT32__DHT In-Sash RT32__DH Operator	RT1 RT6 RT2 RT6 RT6	2W32DH	RT7437DH DG RT7518DH DG RT75__DH DG CRT7439DHT In-Sash RT74__DHT In-Sash	RT1 RT29 RT6 RT2 RT6






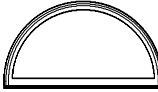
# CLAD ROUND TOP ULTIMATE DOUBLE HUNG

ELEVATIONS: RT2 TRUE HALF CIRCLE

NOT TO SCALE

**CAUTION:** Marvin SillGuard™ is not recommended for these shapes.

## RT2 - TRUE HALF CIRCLE STANDARD TRANSOM SIZES IN-SASH

Rgh. Opp. Rgh. Opp. Rad.	(400) (65)	2-2 3/8 (670) 1-1 3/16 (335)	(451) (65)	2-6 3/8 (772) 1-3 3/16 (386)	(476) (65)	2-8 3/8 (822) 1-4 3/16 (411)	
1-3 3/4 0-2 9/16		CRT2015 DHT	1-5 3/4 0-2 9/16		CRT2417 DHT	1-6 3/4 0-2 9/16	
1-7 3/4 (502) 0-2 9/16 (65)		CRT2819 DHT	1-8 3/4 (527) 0-2 9/16 (65)	3-0 3/8 (924) 1-6 3/16 (462)	1-9 3/4 (552) 0-2 9/16 (65)	3-2 3/8 (975) 1-7 3/16 (487)	
1-11 3/4 (603) 0-2 9/16 (65)		CRT3623 DHT	2-1 3/4 (654) 0-2 9/16 (65)	3-10 3/8 (1178) 1-11 3/16 (589)	2-4 7/16 (722) 0-2 9/16 (65)	4-3 3/4 (1314) 2-1 7/8 (657)	
2-8 7/16 (824) 0-2 9/16 (65)		CRT5831 DHT	3-0 7/16 (926) 0-2 9/16 (65)	5-7 3/4 (1721) 2-9 7/8 (860)	3-4 7/16 (1027) 0-2 9/16 (65)	6-3 3/4 (1924) 3-1 7/8 (962)	
Rgh. Opp. Rgh. Opp. Spln			Rgh. Opp. Rgh. Opp. Spln		Rgh. Opp. Rgh. Opp. Spln		

# CLAD ROUND TOP ULTIMATE DOUBLE HUNG

## ELEVATIONS: RT6 EYEBROW ABOVE SPRINGLINE ONE WIDE OPERATOR

NOT TO SCALE

**CAUTION:** It is recommended that a minimum of 1/4" be added to the rough opening height when using a rigid sill pan product such as Marvin SillGuard™. (SillGuard requires minimum of 6" RO springline).

### CLAD ULTIMATE DOUBLE HUNG SERIES

#### RT6 - EYEBROW ABOVE SPRINGLINE STANDARD SIZES ONE WIDE OPERATOR IN-SASH

Mas. Opg. 2-1 7/8 (657) Mas. Opg. Rad. 2-0 1/4 (616) Rgh. Opg. 2-2 3/8 (670) Rgh. Opg. Rad. 2-0 1/2 (622)		2-5 7/8 (759) 2-0 1/4 (616) 2-6 3/8 (772) 2-0 1/2 (622)		2-9 7/8 (962) 2-6 1/4 (1022) 2-10 3/8 (873) 2-6 1/2 (775)		3-1 7/8 (962) 3-4 1/4 (1022) 3-2 3/8 (975) 3-4 1/2 (1029)	
3-4 1/4 (1022) 3-0 1/2 (927) 3-4 1/2 (1029) 3-0 21/32 (931)	CRT2014 DH-1W	3-5 21/32 (1058) 3-0 1/2 (927) 3-5 29/32 (1064) 3-0 5/8 (930)	CRT2414 DH-1W	3-5 23/32 (1059) 3-0 1/2 (927) 3-5 31/32 (1065) 3-0 5/8 (931)	CRT2814 DH-1W	3-5 1/4 (1048) 3-0 17/32 (928) 3-5 1/2 (1054) 3-0 21/32 (932)	CRT3214 DH-1W
3-8 1/4 (1124) 3-4 1/2 (1029) 3-8 1/2 (1130) 3-4 21/32 (1033)	CRT2016 DH-1W	3-9 21/32 (1159) 3-4 1/2 (1029) 3-9 29/32 (1166) 3-4 5/8 (1032)	CRT2416 DH-1W	3-9 23/32 (1161) 3-4 1/2 (1029) 3-9 31/32 (1167) 3-4 5/8 (1032)	CRT2816 DH-1W	3-9 1/4 (1150) 3-4 17/32 (1029) 3-9 1/2 (1156) 3-4 21/32 (1033)	CRT3216 DH-1W
4-0 1/4 (1226) 3-8 1/2 (1131) 4-0 1/2 (1232) 3-8 21/32 (1134)	CRT2018 DH-1W	4-1 21/32 (1261) 3-8 1/2 (1131) 4-1 29/32 (1267) 3-8 5/8 (1133)	CRT2418 DH-1W	4-1 21/32 (1262) 3-8 1/2 (1131) 4-1 31/32 (1269) 3-8 5/8 (1134)	CRT2818 DH-1W	4-1 1/4 (1251) 3-8 17/32 (1130) 4-1 1/2 (1258) 3-8 21/32 (1135)	CRT3218 DH-1W
4-4 1/4 (1327) 4-0 1/2 (1232) 4-4 1/2 (1334) 4-0 21/32 (1236)	CRT2020 DH-1W	4-5 21/32 (1363) 4-0 1/2 (1232) 4-5 29/32 (1369) 4-0 5/8 (1235)	CRT2420 DH-1W	4-5 23/32 (1364) 4-0 1/2 (1232) 4-5 31/32 (1370) 4-0 5/8 (1235)	CRT2820 DH-1W	4-5 1/4 (1353) 4-0 17/32 (1233) 4-5 1/2 (1359) 4-0 21/32 (1236)	CRT3220 DH-1W
4-8 1/4 (1429) 4-4 1/2 (1334) 4-8 1/2 (1435) 4-4 21/32 (1337)	CRT2022 DH-1W	4-9 21/32 (1464) 4-4 1/2 (1333) 4-9 29/32 (1471) 4-4 5/8 (1337)	CRT2422 DH-1W	4-9 23/32 (1465) 4-4 1/2 (1334) 4-9 31/32 (1472) 4-4 5/8 (1337)	CRT2822 DH-1W	4-9 1/4 (1454) 4-4 1/2 (1334) 4-9 1/2 (1461) 4-4 21/32 (1338)	CRT3222 DH-1W
5-0 1/4 (1530) 4-8 1/2 (1435) 5-0 1/2 (1537) 4-8 21/32 (1439)	CRT2024 DH-1W	5-1 21/32 (1566) 4-8 1/2 (1435) 5-1 29/32 (1572) 4-8 5/8 (1438)	CRT2424 DH-1W	5-1 23/32 (1567) 4-8 1/2 (1435) 5-1 31/32 (1573) 4-8 5/8 (1439)	CRT2824 DH-1W	5-1 1/4 (1556) 4-8 17/32 (1436) 5-1 1/2 (1562) 4-8 21/32 (1440)	CRT3224 DH-1W
5-4 1/4 (1632) 5-0 1/2 (1537) 5-4 1/2 (1638) 5-0 21/32 (1541)	CRT2026 DH-1W	5-5 21/32 (1667) 5-0 1/2 (1537) 5-5 29/32 (1674) 5-0 5/8 (1540)	CRT2426 DH-1W	5-5 23/32 (1669) 5-0 31/32 (1537) 5-5 31/32 (1675) 5-0 5/8 (1540)	CRT2826 DH-1W	5-5 1/4 (1658) 5-0 17/32 (1537) 5-5 1/2 (1664) 5-0 21/32 (1541)	CRT3226 DH-1W
5-8 1/4 (1734) 5-4 1/2 (1639) 5-8 1/2 (1740) 5-4 21/32 (1642)	CRT2028 DH-1W	5-9 21/32 (1769) 5-4 1/2 (1639) 5-9 29/32 (1775) 5-4 5/8 (1641)	CRT2428 DH-1W	5-9 23/32 (1770) 5-4 1/2 (1639) 5-9 31/32 (1777) 5-4 5/8 (1642)	CRT2828 DH-1W	5-9 1/4 (1759) 5-4 17/32 (1639) 5-9 1/2 (1766) 5-4 21/32 (1643)	CRT3228 DH-1W
Mas. Opg. Spn. Mas. Opg. Spn. Rgh. Opg. Spn. Rgh. Opg. Spn.		Mas. Opg. Spn. Mas. Opg. Spn. Rgh. Opg. Spn. Rgh. Opg. Spn.		Mas. Opg. Spn. Mas. Opg. Spn. Rgh. Opg. Spn. Rgh. Opg. Spn.		Mas. Opg. Spn. Mas. Opg. Spn. Rgh. Opg. Spn. Rgh. Opg. Spn.	

**NOTE:**

For egress information contact your Marvin representative.

# CLAD ROUND TOP ULTIMATE DOUBLE HUNG

## ELEVATIONS: RT6 EYEBROW ABOVE SPRINGLINE ONE WIDE OPERATOR

NOT TO SCALE

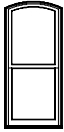
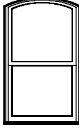
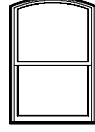
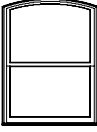
**CAUTION:** It is recommended that a minimum of 1/4" be added to the rough opening height when using a rigid sill pan product such as Marvin SillGuard™. (SillGuard requires minimum of 6" RO springline).

### CLAD ULTIMATE DOUBLE HUNG SERIES

#### RT6 - EYEBROW ABOVE SPRINGLINE STANDARD SIZES ONE WIDE OPERATOR IN-SASH

Mas. Opg. 2-1 7/8 (657)	2-5 7/8 (759)	2-9 7/8 (962)	3-1 7/8 (962)
Mas. Opg. Rad. 2-0 1/4 (616)	2-0 1/4 (616)	2-6 1/4 (1022)	3-4 1/4 (1022)
Rgh. Opg. 2-2 3/8 (670)	2-6 3/8 (772)	2-10 3/8 (873)	3-2 3/8 (975)
Rgh. Opg. Rad. 2-0 1/2 (622)	2-0 1/2 (622)	2-6 1/2 (775)	3-4 1/2 (1029)

(1842) 6-0 1/4 5-8 1/2 6-0 1/2 5-8 21/32		(1871) 6-1 21/32 5-8 1/2 6-1 29/32 5-8 5/8		(1872) 6-1 23/32 5-8 1/2 6-1 31/32 5-8 5/8		(1861) 6-1 1/4 5-8 17/32 6-1 1/2 5-8 21/32	
CRT2030 DH-1W	CRT2430 DH-1W	CRT2830 DH-1W	CRT3230 DH-1W				
(1937) 6-4 1/4 6-0 1/2 6-4 1/2 6-0 21/32	(1972) 6-5 21/32 6-0 1/2 6-5 29/32 6-0 5/8	(1973) 6-5 23/32 6-0 1/2 6-5 31/32 6-0 5/8	(1962) 6-5 1/4 6-0 17/32 6-5 1/2 6-0 21/32				
CRT2032 DH-1W	CRT2432 DH-1W	CRT2832 DH-1W	CRT3232 DH-1W				
(2038) 6-8 1/4 6-4 1/2 6-8 1/2 6-4 21/32	(2074) 6-9 21/32 6-4 1/2 6-9 29/32 6-4 5/8	(2075) 6-9 23/32 6-4 1/2 6-9 31/32 6-4 5/8	(2064) 6-9 1/4 6-4 17/32 6-9 1/2 6-4 21/32				
CRT2034 DH-1W	CRT2434 DH-1W	CRT2834 DH-1W	CRT3234 DH-1W				
(2140) 7-0 1/4 6-8 1/2 7-0 1/2 6-8 21/32	(2175) 7-1 21/32 6-8 1/2 7-1 29/32 6-8 5/8	(2177) 7-1 23/32 6-8 1/2 7-1 31/32 6-8 5/8	(2166) 7-1 1/4 6-8 17/32 7-1 1/2 6-8 21/32				
Mas. Opg. Spln. 6-8 1/2 (2045)	Mas. Opg. Spln. 6-8 1/2 (2045)	Mas. Opg. Spln. 6-8 1/2 (2045)	Mas. Opg. Spln. 6-8 1/2 (2045)				
Rgh. Opg. Spln. 6-8 1/2 (2146)	Rgh. Opg. Spln. 6-8 1/2 (2182)	Rgh. Opg. Spln. 6-8 1/2 (2183)	Rgh. Opg. Spln. 6-8 1/2 (2172)				
Rgh. Opg. Spln. 6-8 21/32 (2049)	Rgh. Opg. Spln. 6-8 5/8 (2048)	Rgh. Opg. Spln. 6-8 5/8 (2048)	Rgh. Opg. Spln. 6-8 21/32 (2049)				
CRT2036 DH-1W	CRT2436 DH-1W	CRT2836 DH-1W	CRT3236 DH-1W				

**NOTE:** For egress information contact your Marvin representative.

# CLAD ROUND TOP ULTIMATE DOUBLE HUNG







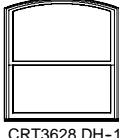



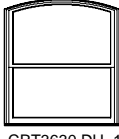
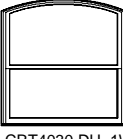
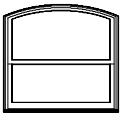
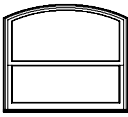
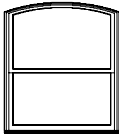
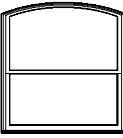
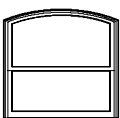
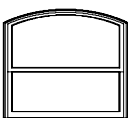
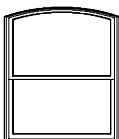
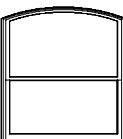
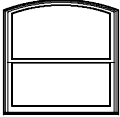
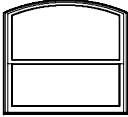
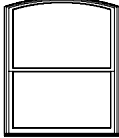
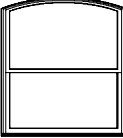
ELEVATIONS: RT6 EYEBROW ABOVE SPRINGLINE ONE WIDE OPERATOR

NOT TO SCALE

**CAUTION:** It is recommended that a minimum of 1/4" be added to the rough opening height when using a rigid sill pan product such as Marvin SillGuard™. (SillGuard requires minimum of 6" RO springline).

## CLAD ULTIMATE DOUBLE HUNG SERIES

### RT6 - EYEBROW ABOVE SPRINGLINE STANDARD SIZES ONE WIDE OPERATOR IN-SASH

Mas. Opg. 3-5 7/8 (1064) Mas. Opg. Rad. 3-4 1/4 (1022) Rgh. Opg. 3-6 3/8 (1076) Rgh. Opg. Rad. 3-4 1/2 (1029)		3-6 13/32 (1077) 3-0 1/2 (927) 3-6 21/32 (1083) 3-0 21/32 (931)	Mas. Opg. 3-9 7/8 (1165) Mas. Opg. Rad. 3-4 1/4 (1022) Rgh. Opg. 3-10 3/8 (1178) Rgh. Opg. Rad. 3-4 1/2 (1029)		3-7 11/16 (1109) 3-0 1/2 (927) 3-7 15/16 (1116) 3-0 5/8 (931)	Mas. Opg. 3-5 7/8 (1064) Mas. Opg. Rad. 3-4 1/4 (1022) Rgh. Opg. 3-6 3/8 (1076) Rgh. Opg. Rad. 3-4 1/2 (1029)		5-6 13/32 (1686) 5-0 1/2 (1537) 5-6 21/32 (1693) 5-0 21/32 (1541)	Mas. Opg. 3-9 7/8 (1165) Mas. Opg. Rad. 3-4 1/4 (1022) Rgh. Opg. 3-10 3/8 (1178) Rgh. Opg. Rad. 3-4 1/2 (1029)		3-9 7/8 (1165) 3-4 1/4 (1022) 3-10 3/8 (1178) 3-4 1/2 (1029)
Mas. Opg. 3-10 13/32 (1178) Mas. Opg. Rad. 3-4 1/2 (1029) Rgh. Opg. 3-10 21/32 (1185) Rgh. Opg. Rad. 3-4 21/32 (1033)		3-10 13/32 (1178) 3-4 1/2 (1029) 3-10 21/32 (1185) 3-4 21/32 (1033)	Mas. Opg. 3-11 11/16 (1211) Mas. Opg. Rad. 3-4 1/2 (1029) Rgh. Opg. 3-11 15/16 (1217) Rgh. Opg. Rad. 3-4 5/8 (1032)		3-11 11/16 (1211) 3-4 1/2 (1029) 3-11 15/16 (1217) 3-4 5/8 (1032)	Mas. Opg. 5-10 13/32 (1788) Mas. Opg. Rad. 5-4 1/2 (1639) Rgh. Opg. 5-10 21/32 (1794) Rgh. Opg. Rad. 5-4 21/32 (1642)		5-10 13/32 (1788) 5-4 1/2 (1639) 5-10 21/32 (1794) 5-4 21/32 (1642)	Mas. Opg. 5-11 11/16 (1821) Mas. Opg. Rad. 5-4 1/2 (1638) Rgh. Opg. 5-11 15/16 (1827) Rgh. Opg. Rad. 5-4 5/8 (1642)		5-11 11/16 (1821) 5-4 1/2 (1638) 5-11 15/16 (1827) 5-4 5/8 (1642)
Mas. Opg. 4-2 13/32 (1280) Mas. Opg. Rad. 3-8 1/2 (1131) Rgh. Opg. 4-2 21/32 (1286) Rgh. Opg. Rad. 3-8 21/32 (1134)		4-2 13/32 (1280) 3-8 1/2 (1131) 4-2 21/32 (1286) 3-8 21/32 (1134)	Mas. Opg. 4-3 11/16 (1313) Mas. Opg. Rad. 3-8 1/2 (1131) Rgh. Opg. 4-3 15/16 (1319) Rgh. Opg. Rad. 3-8 5/8 (1134)		4-3 11/16 (1313) 3-8 1/2 (1131) 4-3 15/16 (1319) 3-8 5/8 (1134)	Mas. Opg. 6-2 13/32 (1890) Mas. Opg. Rad. 5-8 1/2 (1740) Rgh. Opg. 6-2 21/32 (1896) Rgh. Opg. Rad. 5-8 21/32 (1744)		6-2 13/32 (1890) 5-8 1/2 (1740) 6-2 21/32 (1896) 5-8 21/32 (1744)	Mas. Opg. 6-3 11/16 (1922) Mas. Opg. Rad. 5-8 1/2 (1740) Rgh. Opg. 6-3 15/16 (1929) Rgh. Opg. Rad. 5-8 5/8 (1743)		6-3 11/16 (1922) 5-8 1/2 (1740) 6-3 15/16 (1929) 5-8 5/8 (1743)
Mas. Opg. 4-6 13/32 (1382) Mas. Opg. Rad. 4-0 1/2 (1232) Rgh. Opg. 4-6 21/32 (1388) Rgh. Opg. Rad. 4-0 21/32 (1236)		4-6 13/32 (1382) 4-0 1/2 (1232) 4-6 21/32 (1388) 4-0 21/32 (1236)	Mas. Opg. 4-7 11/16 (1414) Mas. Opg. Rad. 4-0 1/2 (1232) Rgh. Opg. 4-7 15/16 (1421) Rgh. Opg. Rad. 4-0 5/8 (1235)		4-7 11/16 (1414) 4-0 1/2 (1232) 4-7 15/16 (1421) 4-0 5/8 (1235)	Mas. Opg. 6-6 13/32 (1991) Mas. Opg. Rad. 6-0 1/2 (1842) Rgh. Opg. 6-6 21/32 (1997) Rgh. Opg. Rad. 6-0 21/32 (1845)		6-6 13/32 (1991) 6-0 1/2 (1842) 6-6 21/32 (1997) 6-0 21/32 (1845)	Mas. Opg. 6-7 11/16 (2024) Mas. Opg. Rad. 6-0 1/2 (1842) Rgh. Opg. 6-7 15/16 (2030) Rgh. Opg. Rad. 6-0 5/8 (1845)		6-7 11/16 (2024) 6-0 1/2 (1842) 6-7 15/16 (2030) 6-0 5/8 (1845)
Mas. Opg. 4-10 13/32 (1483) Mas. Opg. Rad. 4-4 1/2 (1334) Rgh. Opg. 4-10 21/32 (1489) Rgh. Opg. Rad. 4-4 21/32 (1337)		4-10 13/32 (1483) 4-4 1/2 (1334) 4-10 21/32 (1489) 4-4 21/32 (1337)	Mas. Opg. 4-11 11/16 (1516) Mas. Opg. Rad. 4-4 1/2 (1334) Rgh. Opg. 4-11 15/16 (1522) Rgh. Opg. Rad. 4-4 5/8 (1337)		4-11 11/16 (1516) 4-4 1/2 (1334) 4-11 15/16 (1522) 4-4 5/8 (1337)	Mas. Opg. 6-10 13/32 (2093) Mas. Opg. Rad. 6-4 1/2 (1943) Rgh. Opg. 6-10 21/32 (2099) Rgh. Opg. Rad. 6-4 21/32 (1947)		6-10 13/32 (2093) 6-4 1/2 (1943) 6-10 21/32 (2099) 6-4 21/32 (1947)	Mas. Opg. 6-11 11/16 (2125) Mas. Opg. Rad. 6-4 1/2 (1943) Rgh. Opg. 6-11 15/16 (2132) Rgh. Opg. Rad. 6-4 5/8 (1947)		6-11 11/16 (2125) 6-4 1/2 (1943) 6-11 15/16 (2132) 6-4 5/8 (1947)
Mas. Opg. 5-2 13/32 (1585) Mas. Opg. Rad. 4-8 1/2 (1435) Rgh. Opg. 5-2 21/32 (1591) Rgh. Opg. Rad. 4-8 21/32 (1439)		5-2 13/32 (1585) 4-8 1/2 (1435) 5-2 21/32 (1591) 4-8 21/32 (1439)	Mas. Opg. 5-3 11/16 (1617) Mas. Opg. Rad. 4-8 1/2 (1435) Rgh. Opg. 5-3 15/16 (1624) Rgh. Opg. Rad. 4-8 5/8 (1439)		5-3 11/16 (1617) 4-8 1/2 (1435) 5-3 15/16 (1624) 4-8 5/8 (1439)	Mas. Opg. 7-2 13/32 (2194) Mas. Opg. Rad. 6-8 1/2 (2045) Rgh. Opg. 7-2 21/32 (2201) Rgh. Opg. Rad. 6-8 21/32 (2049)		7-2 13/32 (2194) 6-8 1/2 (2045) 7-2 21/32 (2201) 6-8 21/32 (2049)	Mas. Opg. 7-3 11/16 (2227) Mas. Opg. Rad. 6-8 1/2 (2045) Rgh. Opg. 7-3 15/16 (2233) Rgh. Opg. Rad. 6-8 5/8 (2048)		7-3 11/16 (2227) 6-8 1/2 (2045) 7-3 15/16 (2233) 6-8 5/8 (2048)

**NOTE:**

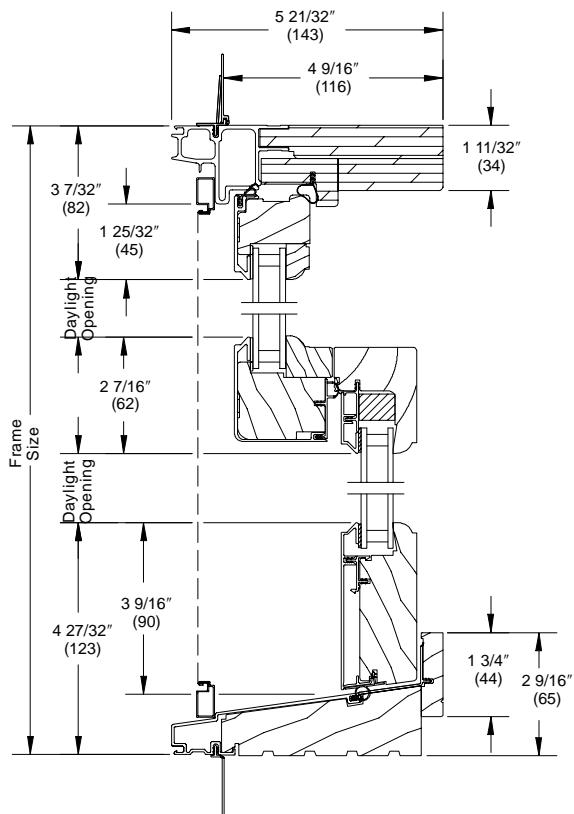
For egress information contact your Marvin representative.

# CLAD ROUND TOP ULTIMATE DOUBLE HUNG

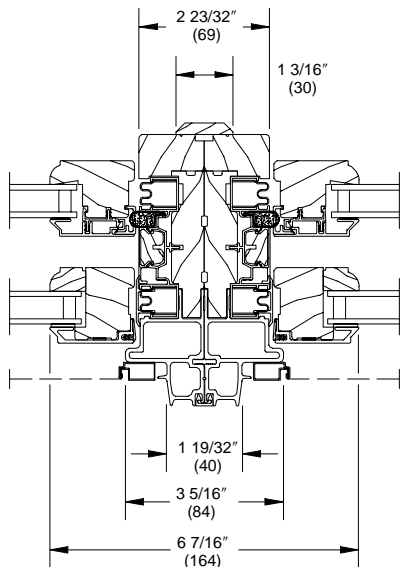
## SECTION DETAILS: SINGLE HUNG OPERATORS

SCALE: 3" = 1' 0"

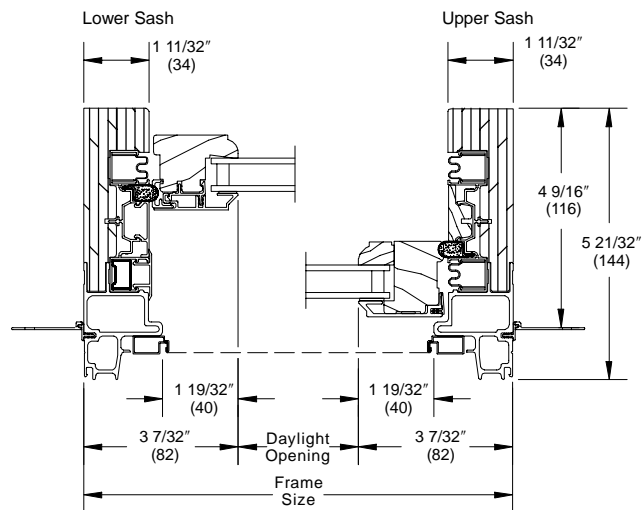
### Ultimate Single Hung



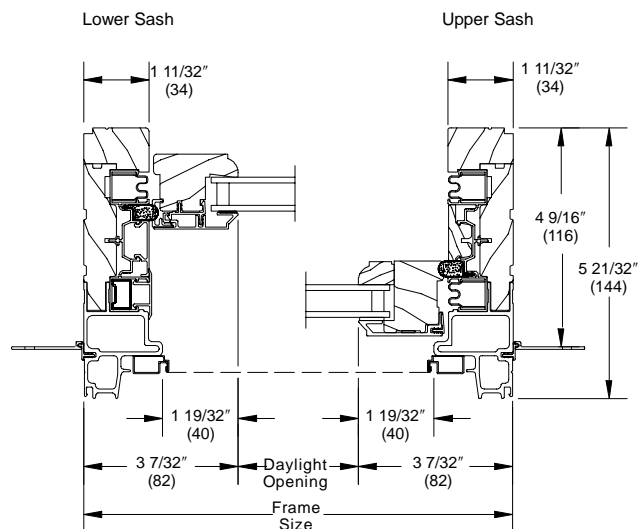
Head Jamb and Sill



RT6 Vertical Mullion



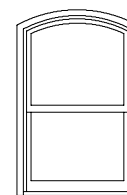
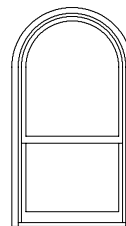
RT2 Jamb



RT6 Jamb

RT2

RT6



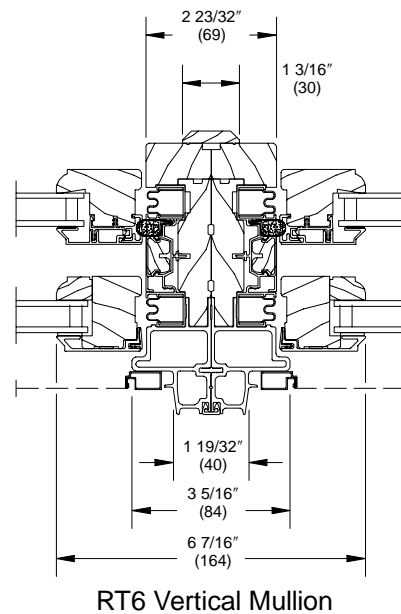
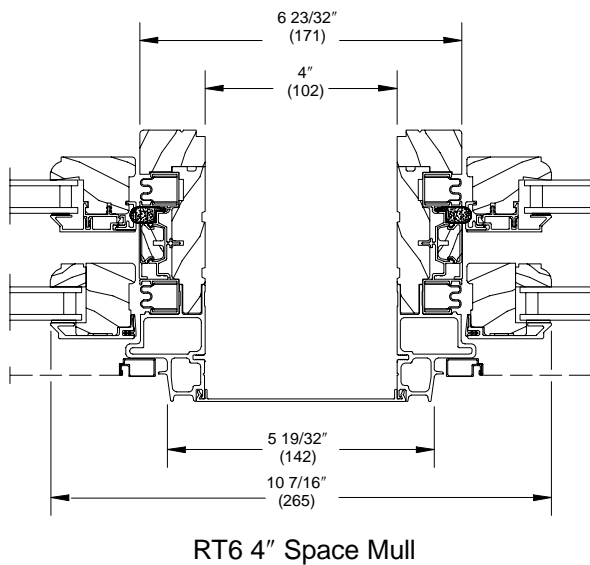
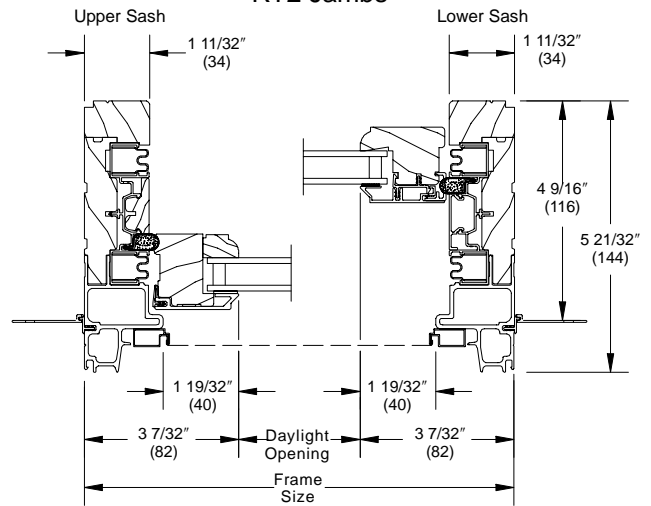
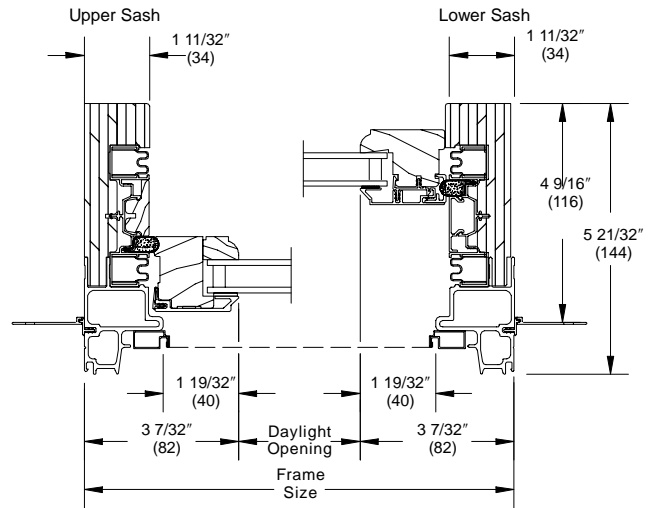
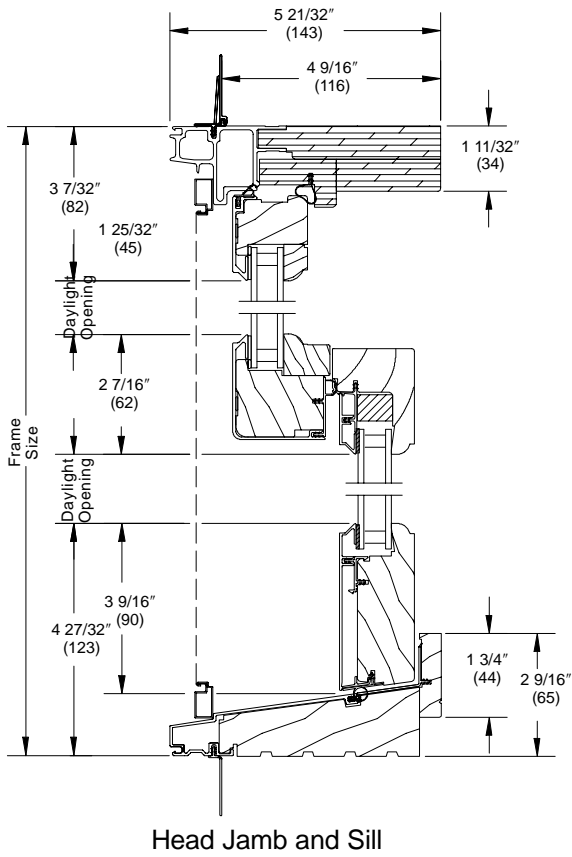
Clad Round Top Ultimate Single Hung

# CLAD ROUND TOP ULTIMATE DOUBLE HUNG

## SECTION DETAILS: DOUBLE HUNG OPERATORS

SCALE: 3" = 1' 0"

### Ultimate Double Hung

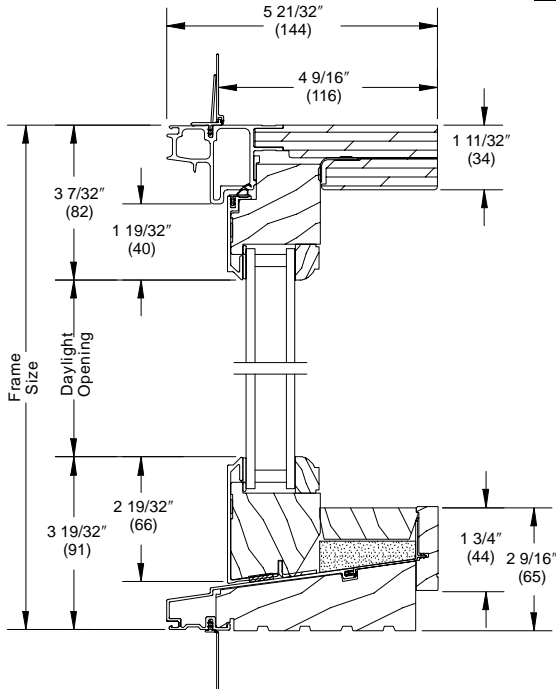


# CLAD ROUND TOP ULTIMATE DOUBLE HUNG

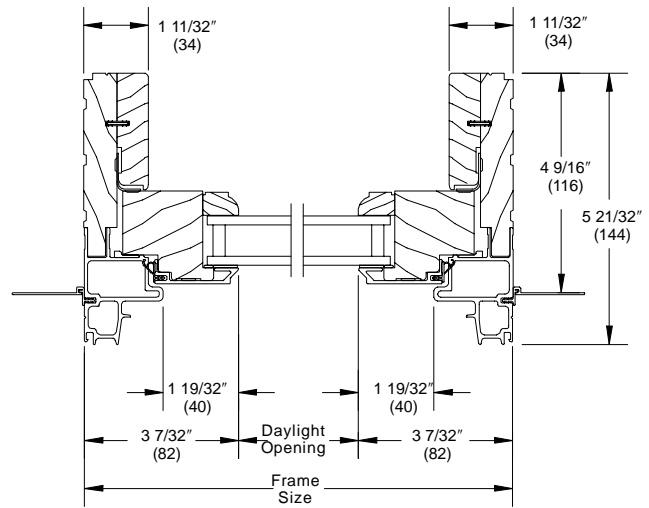
## SECTION DETAILS: TRANSOM / PICTURE

SCALE: 3" = 1' 0"

### Double Hung Transom

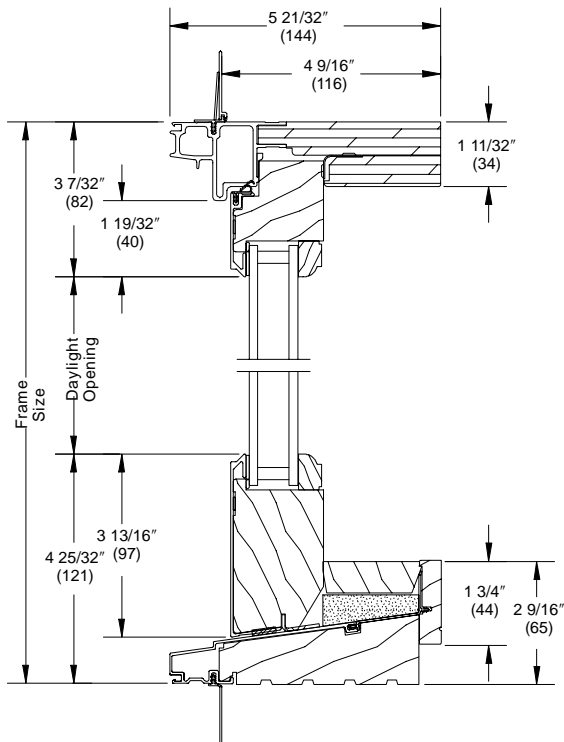


Head Jamb and Sill

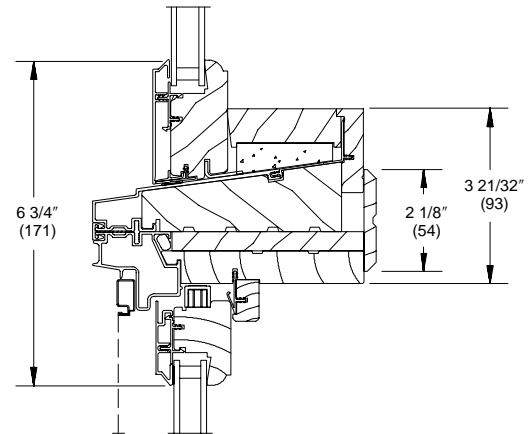


Jamb

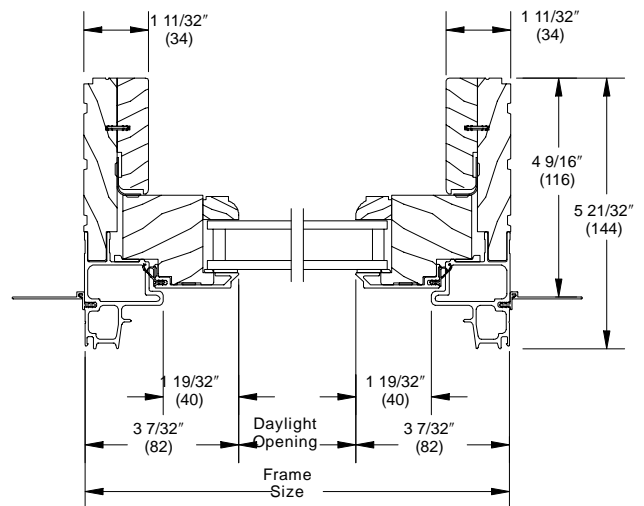
### Double Hung Picture



Head Jamb and Sill



Clad Round Top Ultimate Double Hung In-Sash over Clad Ultimate Double Hung



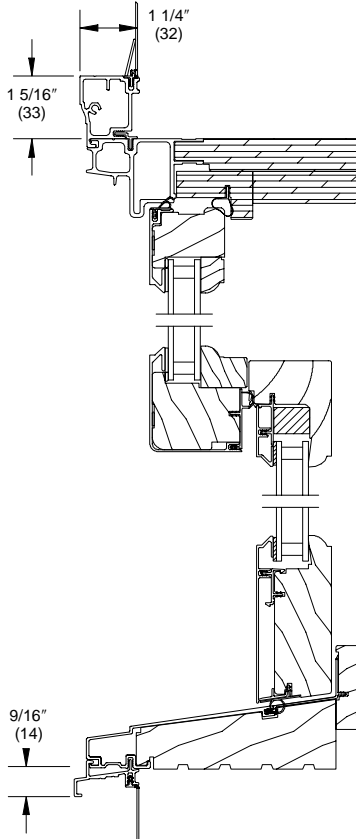
Jamb

# CLAD ROUND TOP ULTIMATE DOUBLE HUNG

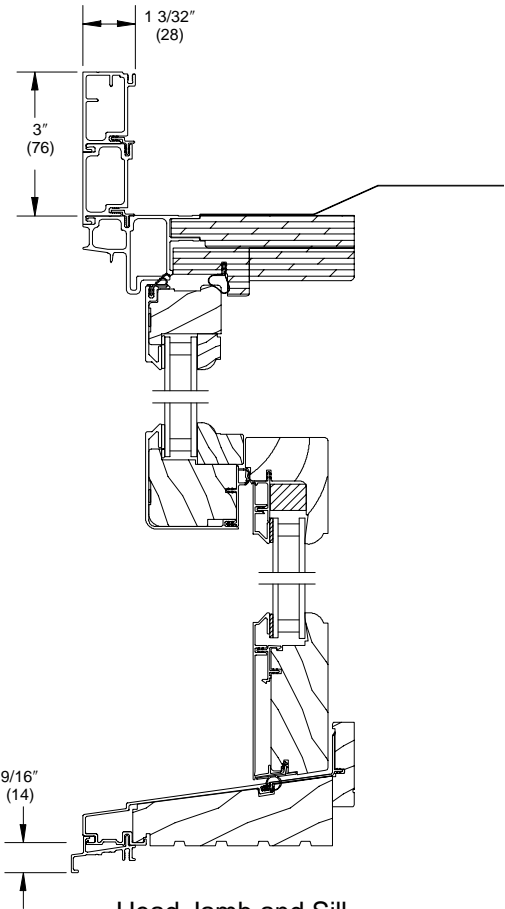
## SECTION DETAILS: CLAD BMC / FLAT CASING / DIVIDED LITE OPTIONS

SCALE: 3" = 1' 0"

### Casing Options

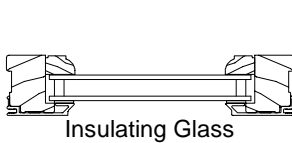


Head Jamb and Sill  
with Clad Brick Mould Casing

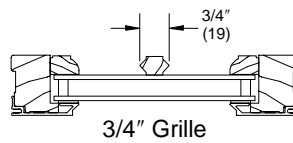


Head Jamb and Sill  
with Clad Flat Casing

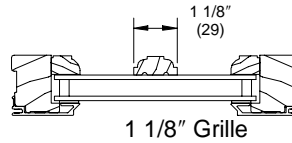
### Insulating Glass 1 5/8" Operator In-Sash



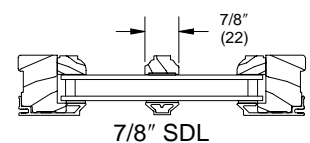
Insulating Glass



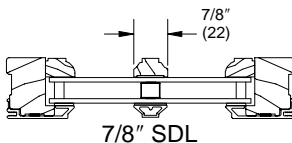
3/4" Grille



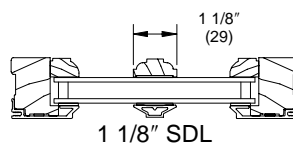
1 1/8" Grille



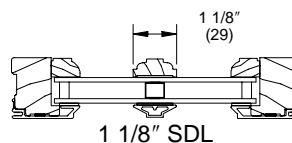
7/8" SDL  
without Spacer Bar



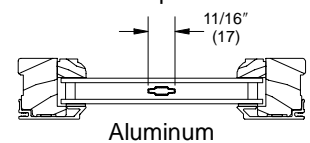
7/8" SDL  
with Spacer Bar



1 1/8" SDL  
without Spacer Bar

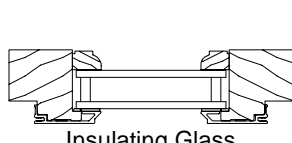


1 1/8" SDL  
with Spacer Bar

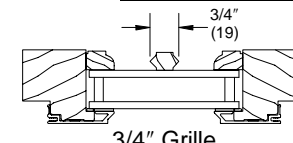


Aluminum  
Grille between Glass

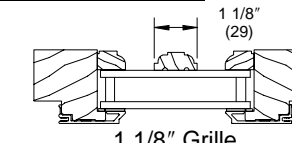
### 2" Transom and Picture In-Sash



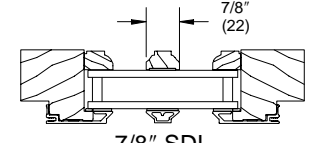
Insulating Glass



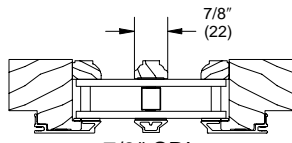
3/4" Grille



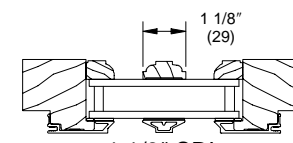
1 1/8" Grille



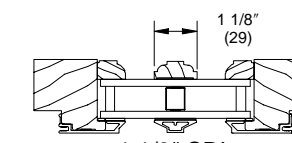
7/8" SDL  
without Spacer Bar



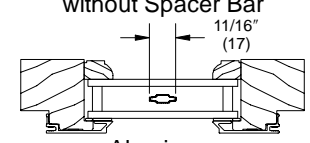
7/8" SDL  
with Spacer Bar



1 1/8" SDL  
without Spacer Bar



1 1/8" SDL  
with Spacer Bar



Aluminum  
Grille between Glass

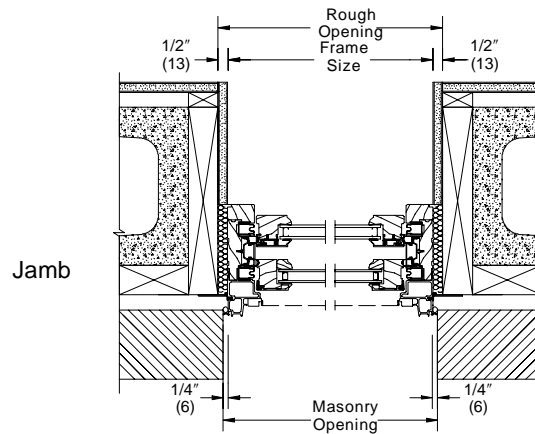
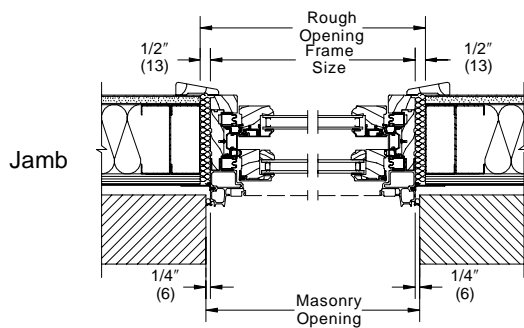
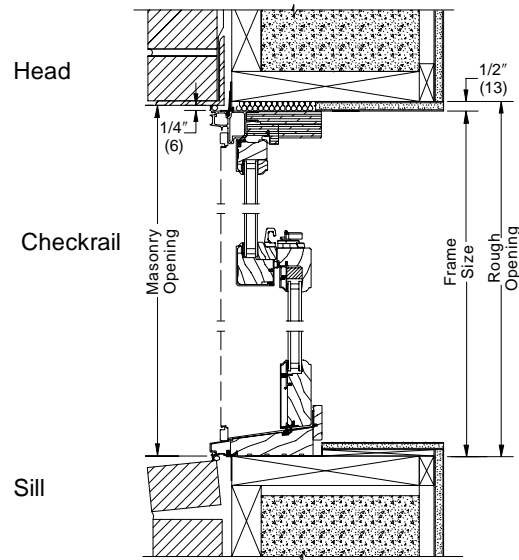
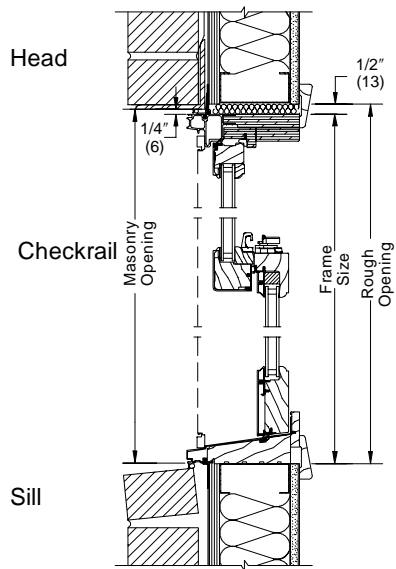
**NOTE:**

Grille = Removable interior divider  
SDL = Simulated divided lite

# CLAD ROUND TOP ULTIMATE DOUBLE HUNG

## SECTION DETAILS: CONSTRUCTION

NOT TO SCALE



Brick Veneer with Steel Stud Construction

Brick Veneer with Concrete Block Construction

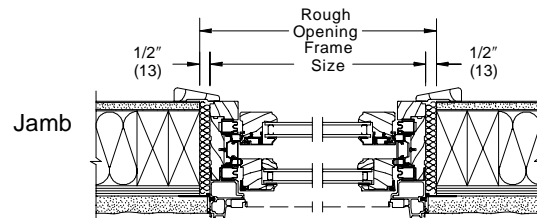
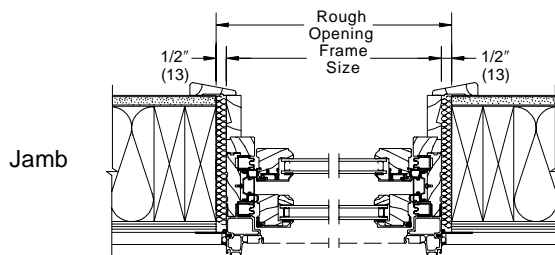
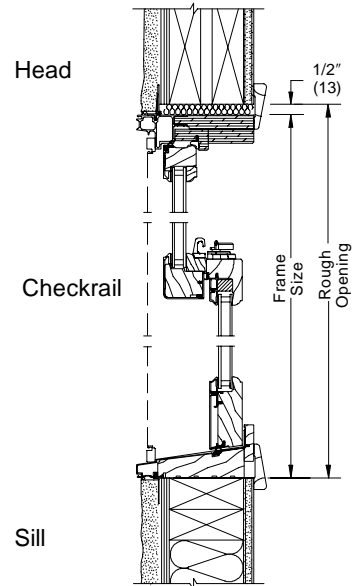
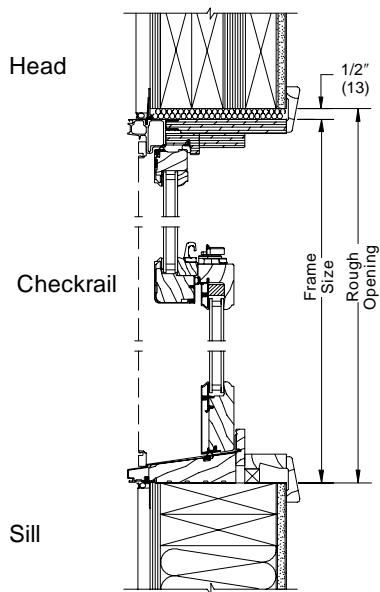
**NOTE:**

The above wall sections represent typical wall conditions, these details are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.

# CLAD ROUND TOP ULTIMATE DOUBLE HUNG

## SECTION DETAILS: CONSTRUCTION

NOT TO SCALE



Wood Siding with 2x6  
Frame Construction

Stucco with 2x4  
Frame Construction

**NOTE:**

The above wall sections represent typical wall conditions, these details are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.

# CLAD ROUND TOP ULTIMATE DH MAGNUM

## UNIT FEATURES

### **Frame:**

- Interior: Pine wood interior standard. Optional white oak, cherry, mahogany, vertical grain Douglas fir
- Exterior: Extruded aluminum, .050" (1.3) thick
- Frame thickness: 1 3/4" (44)
- Frame width: 4 9/16" (116)
- Eight degree bevel on sill

### **Sash:**

- Interior: Pine wood interior standard. Optional white oak, cherry, mahogany, vertical grain Douglas fir
- Exterior: Extruded aluminum, .045" (1.1) thick
- Sash thickness: 1 9/16" (40)
- Operating Sash are removable for cleaning, service or finishing

### **Interior and exterior finish:**

- Interior finish: Treated bare wood or white primed (pine only)
- Exterior finish: Two coat finish system using Kynar® or Hylar® resins. Meets or exceeds AAMA 2605 requirements.  
Standard Color: Stone White, Bahama Brown, Bronze, Pebble Gray, Evergreen. Select Color: Sierra White, Coconut Cream, French Vanilla, Cashmere, Desert Beige, Cumulus Gray, Cadet Gray, Ebony, Arctic White, Cascade Blue, Cobalt Blue, Hampton Sage, Sherwood Green and Wineberry. Contact your Marvin representative for details on custom colors.

### **Hardware:**

- Sash lock and keeper: Surface mounted, open style crescent cam lock. Two locks on glass sizes of 36" (914) and wider. Color: Satin Taupe, Optional: White, Bronze, Brass, Antique Brass, Oil Rubbed Bronze, Satin Chrome, Satin Nickel
- Sash lift is optional: Color: Satin Taupe, Optional: White, Bronze, Brass, Antique Brass, Oil Rubbed Bronze, Satin Chrome, Satin Nickel
- Balance system: Spiral balance system

### **Weather Stripping:**

- Operating units: Foam filled bulb weather strip at head jamb, bulb weather strip at the check rail and bottom rail and foam filled bulb weather strip at the jambs Color: Beige

### **Jamb Extensions:**

- Jamb extensions available for various wall thickness factory applied, finished matching interior

### **Insect Screens:**

- Aluminum Screen: Full screen standard, half screen optional. Standard Color: Stone White, Bahama Brown, Bronze, Pebble Gray, Evergreen. Select Color: Sierra White, Coconut Cream, French Vanilla, Cashmere, Desert Beige, Cumulus Gray, Cadet Gray, Ebony, Arctic White, Cascade Blue, Cobalt Blue, Hampton Sage, Sherwood Green and Wineberry. Contact your Marvin representative for details on custom colors..
- Screen mesh: 18 by 16 charcoal fiberglass, optional screen mesh: charcoal aluminum wire, black aluminum wire, bright aluminum wire, bright bronze wire

### **Removable interior grilles:**

- Bar: Pine wood 3/4" (19) or 1 1/8" (29)
- Pattern: Rectangular, custom lite layouts available. Contact your Marvin representative.

### **Interior / Exterior Simulated Divided lites (SDL):**

- Interior bar: 7/8" (22) or 1 1/8" (29) wide. Pine wood standard. Optional: white oak, cherry, mahogany, vertical grain Douglas fir. Finish to match interior panel surface
- Exterior bar: 7/8" (22) or 1 1/8" (29) wide. Extruded aluminum. Finish to match exterior panel surface
- Insulating glass units available with or without aluminum spacer in airspace
- Pattern: rectangular. Custom lite layouts available. Contact your Marvin representative

### **Grilles-between-the-glass (GBG):**

- 11/16" (17) white contoured aluminum bar. Optional flat aluminum bar.
- Rectangular lite layout

### **Glass and Glazing:**

- Glazing method: Insulated
- Glazing seal: Silicone glazed bottom sash. Top sash are glazed with a rapid strength sealant.
- Glazing type: Clear, Low E II with argon, laminated, solar tints, tempered, obscure, bronze tint, and reflective bronze
- Glazing will be altitude adjusted for higher elevations, argon gas not included

### **Accessories:**

- Masonry brackets: 6" (152), 10" (254)
- Aluminum extrusions: Brick Mould Casing, Flat Casing, various special casings, Mullion Covers, Frame Expanders, Mullion Expanders
- Marvin SillGuard™

### **Note:**

Values shown in parenthesis represent metric equivalents  
For product specifications please refer to the CSI Product Specifications, contact your Marvin representative

# CLAD ROUND TOP ULTIMATE DH MAGNUM

Built around you.™

## NFRC VALUES / DESIGN PRESSURE / MINIMUM AND MAXIMUM MEASUREMENTS

NFRC Unit Values					
Glazing Type	U-Factor	R-Value	Solar Heat Gain Coefficient	Visible Light Transmittance	Energy Star
<b>Double Hung / Single Hung Round Top</b>					
<b>Size Tested</b>	<b>47 x 59</b>	<b>47 x 59</b>	<b>47 x 59</b>	<b>47 x 59</b>	
Insulating glass	0.47	2.13	0.56	0.58	-
Insulating glass - SDL	0.47	2.13	0.50	0.52	-
Insulating glass - SDL with spacer bars	0.47	2.13	0.50	0.52	-
Insulating Low E II glass	0.35	2.86	0.30	0.51	N, NC, SC, S
Insulating Low E II glass - SDL	0.35	2.86	0.27	0.45	N, NC, SC, S
Insulating Low E II glass - SDL with spacer bars	0.36	2.78	0.27	0.45	N, NC, SC, S
Insulating Low E II glass - Argon	0.31	3.23	0.30	0.51	N, NC, SC, S
Insulating Low E II glass - Argon, SDL	0.31	3.23	0.27	0.45	N, NC, SC, S
Insulating Low E II glass - Argon, SDL with spacer bars	0.32	3.13	0.27	0.45	N, NC, SC, S
<b>Transom 3/4" IG Round Top</b>					
<b>Size Tested</b>	<b>47 x 59</b>	<b>47 x 59</b>	<b>47 x 59</b>	<b>47 x 59</b>	
Insulating glass	0.47	2.13	0.60	0.63	-
Insulating glass - SDL	0.47	2.13	0.54	0.56	-
Insulating glass - SDL with spacer bars	0.47	2.13	0.54	0.56	-
Insulating Low E II glass	0.33	3.03	0.32	0.55	N, NC, SC, S
Insulating Low E II glass - SDL	0.33	3.03	0.29	0.49	N, NC, SC, S
Insulating Low E II glass - SDL with spacer bars	0.34	2.94	0.29	0.49	N, NC, SC, S
Insulating Low E II glass - Argon	0.29	3.45	0.32	0.55	N, NC, SC, S
Insulating Low E II glass - Argon, SDL	0.29	3.45	0.29	0.49	N, NC, SC, S
Insulating Low E II glass - Argon, SDL with spacer bars	0.30	3.33	0.29	0.49	N, NC, SC, S
<b>Picture 1" IG Round Top</b>					
<b>Size Tested</b>	<b>47 x 59</b>	<b>47 x 59</b>	<b>47 x 59</b>	<b>47 x 59</b>	
Insulating glass	0.45	2.22	0.56	0.60	-
Insulating glass - SDL	0.45	2.22	0.50	0.54	-
Insulating glass - SDL with spacer bars	0.45	2.22	0.50	0.54	-
Insulating Low E II glass	0.32	3.13	0.31	0.53	N, NC, SC, S
Insulating Low E II glass - SDL	0.32	3.13	0.27	0.47	N, NC, SC, S
Insulating Low E II glass - SDL with spacer bars	0.33	3.03	0.27	0.47	N, NC, SC, S
Insulating Low E II glass - Argon	0.29	3.45	0.30	0.53	N, NC, SC, S
Insulating Low E II glass - Argon, SDL	0.29	3.45	0.27	0.47	N, NC, SC, S
Insulating Low E II glass - Argon, SDL with spacer bars	0.30	3.33	0.27	0.47	N, NC, SC, S

**NOTE:**

Product Values are determined using the National Fenestration Rating Council (NFRC) Procedures for determining fenestration product values.

**U-Value:** (Btu/hr-sq ft-°F) Lower the U-Value, the greater the resistance to heat flow and better its insulating value.

**R-Value:** (1/U-Value) Higher the R-Value, the greater the resistance to heat flow and better its insulating value.

**Visible Light Transmittance (VLT):** Percentage of visible light transmitted through the unit.

**Solar Heat Gain Coefficient (SHGC):** The lower a window's SHGC, the less solar heat it transmits, and the greater its shading ability.

Capillary tubes are required for IG units at high elevations. Argon will not be furnished in units with capillary tubes.

Contact the Architectural Department Hotline at (800-346-3363) for additional NFRC Unit Values.

Design Pressures		
Double Hung	Transom	Picture
DP H -C50 - up to RO 54 3/8" (1381) x 110 5/8" (2810) Max glass height bottom 48" Max glass height top 54"	DP -TR-LC50 - up to RO 74 3/8" (1889) x 22 3/16" (564)	DP F-C50 - up to RO 62 3/8" (1584) x 104 7/8" (2664)
DP H -C35 - up to RO 60 3/8" (1534) x 120 3/8" (3058)	—	—

Minimum and Maximum Measurements					
Glazing Type	Minimum RO Width	Minimum Springline RO Height	Maximum RO Width	Maximum RO Height	Maximum Glass Squared Off
<b>Double Hung</b>					
Insulating Glass	*26 3/8" (670)	*48 7/8" (1241)	66 3/8" (1686)	128 7/8" (3273)	25
<b>Transom</b>					
Insulating Glass	14 3/8" (365)	14 3/16" (360)	106" (2692)	60" (1524)	25
<b>Picture</b>					
1" Insulating Glass	14 3/8" (365)	15 1/2" (394)	121" (3073)	128 7/8" (3273)	60

**NOTE:**

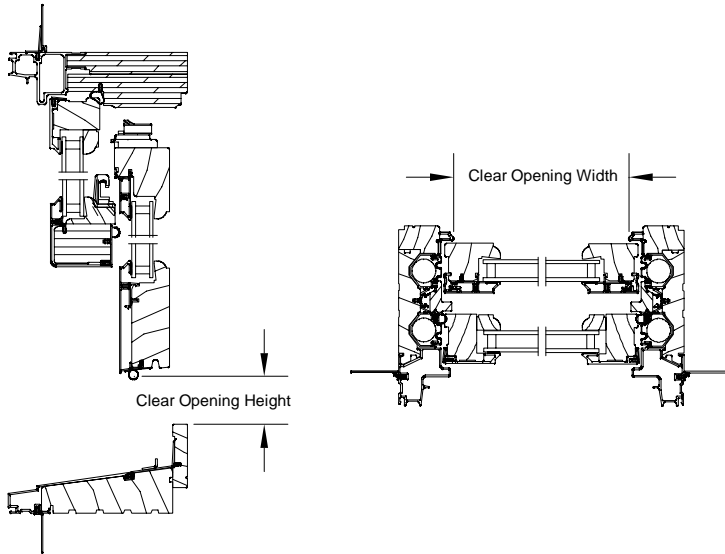
Standard glass thickness is determined by Marvin. For custom glass options, contact your Marvin representative.

\* Minimum RO width of 16 3/8" is available with a minimum RO springline height of 64 7/8".

Minimum sash weight 10 pounds. Maximum sash weight 130 pounds.

# CLAD ROUND TOP ULTIMATE DH MAGNUM

## EGRESS INFORMATION



**International Building Code - 2000**

Section 1009 Emergency Escape and Rescue

**1009.2 Minimum size:** Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.53 m<sup>2</sup>). Exception: The minimum net clear opening for emergency escape and rescue openings on the ground level at grade is 5.0 square feet (0.46 m<sup>2</sup>).

**1009.2.1 Minimum dimensions:** The minimum net clear opening height dimension shall be 24 inches (610 mm). The net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

**1009.3 Maximum height from the floor:** Emergency escape and rescue opening shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor.

**1009.4 Operational constraints:** Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools. Bars, grilles, grates, or similar devices are permitted to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with Section 1009.2 and such devices shall be releasable or removable from the inside without the use of a key, tool, or force greater than that which is required for normal operation of the escape and rescue opening.

Code restrictions may vary depending on your local building codes.

### Egress Conversions

Glass Size Width + 1 7/8" (48) = Egress Width  
Rough Opening Width - 4 1/2" (114) = Egress Width

Glass Size Height	Rough Opening Springline Height	Egress Height
20" (508) to less than 28" (711)	48 7/8" (1241) to less than 64 7/8" (1648)	16 1/2" (419)
28" (711) to less than 38" (965)	64 7/8" (1648) to less than 84 7/8" (2156)	24 1/2" (622)
38" (965) to less than 49" (1245)	84 7/8" (2156) to less than 106 7/8" (2715)	34 1/2" (876)
49" (1245) to less than 60" (1524)	106 7/8" (2715) to less than 128 7/8" (3273)	45 1/2" (1156)

**NOTE:**

Standard limited travel show. Optional full travel available. Contact your Marvin representative.

# CLAD ROUND TOP ULTIMATE DH MAGNUM

## MEASUREMENT CONVERSIONS

<b>CRTUDHM Operator Unit *Measurement Conversion Factors</b>		
<b>Unit</b>	<b>Width</b>	<b>Height</b>
<b>Frame Measurements</b>		
Masonry Opening to Rough Opening (without BMC)	+ 1/2" (13)	+ 1/4" (6)
Masonry Opening to Rough Opening (with BMC)	- 2 1/8" (54)	- 1 11/16" (43)
Masonry Opening to Rough Opening (with Flat Casing)	- 5 1/2" (140)	- 3 3/8" (86)
OM of Frame to Rough Opening	+ 1" (25)	+ 1/2" (13)
<b>Sash/Panel</b>		
Glass Size to Frame OM	+ 5 3/8" (137)	GS x 2 + 8 1/8" (206)
Glass Size to OM of Top Sash	+ 2 15/32" (63)	+ 2 13/16" (71)
Glass Size to OM of Bottom Sash	+ 2 15/32" (63)	+ 4 5/8" (117)
Glass Size to Daylight Opening	- 1 1/16" (27)	- 1 1/16" (27)
<b>Screen</b>		
Rough Opening to OM of Screen	- 3 1/16" (78)	- 2 11/32" (60)
Glass Size to OM of Screen	+ 3 5/16" (84)	GS x 2 + 6 17/32" (166)
Daylight Opening to OM of Screen	+ 2 1/4" (57)	GS x 2 + 5 15/32" (139)
* For equally divided glass heights		

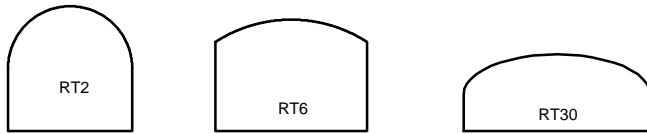
<b>CRTUDHM Transom Unit Measurement Conversion Factors</b>		
<b>Unit</b>	<b>Width</b>	<b>Height</b>
<b>Frame Measurements</b>		
Masonry Opening to Rough Opening (without BMC)	+ 1/2" (13)	+ 1/4" (6)
Masonry Opening to Rough Opening (with BMC)	- 2 1/8" (54)	- 1 11/16" (43)
Masonry Opening to Rough Opening (with Flat Casing)	- 5 1/2" (140)	- 3 3/8" (86)
OM of Frame to Rough Opening	+ 1" (25)	+ 1/2" (13)
<b>Sash/Panel</b>		
Glass Size to Frame OM	+ 5 3/8" (137)	+ 5 11/16" (144)
Glass Size to Rough Opening	+ 6 3/8" (162)	+ 6 3/16" (157)
Glass Size to Daylight Opening	- 1 1/16" (27)	- 1 1/16" (27)

<b>CRTUDHM Picture Unit Measurement Conversion Factors</b>		
<b>Unit</b>	<b>Width</b>	<b>Height</b>
<b>Frame Measurements</b>		
Masonry Opening to Rough Opening (without BMC)	+ 1/2" (13)	+ 1/4" (6)
Masonry Opening to Rough Opening (with BMC)	- 2 1/8" (54)	- 1 11/16" (43)
Masonry Opening to Rough Opening (with Flat Casing)	- 5 1/2" (140)	- 3 3/8" (86)
OM of Frame to Rough Opening	+ 1" (25)	+ 1/2" (13)
<b>Sash/Panel</b>		
Glass Size to Frame OM	+ 5 3/8" (137)	+ 6 15/16" (176)
Glass Size to Rough Opening	+ 6 3/8" (162)	+ 7 7/16" (189)
Glass Size to Daylight Opening	- 1 1/16" (27)	- 1 1/16" (29)

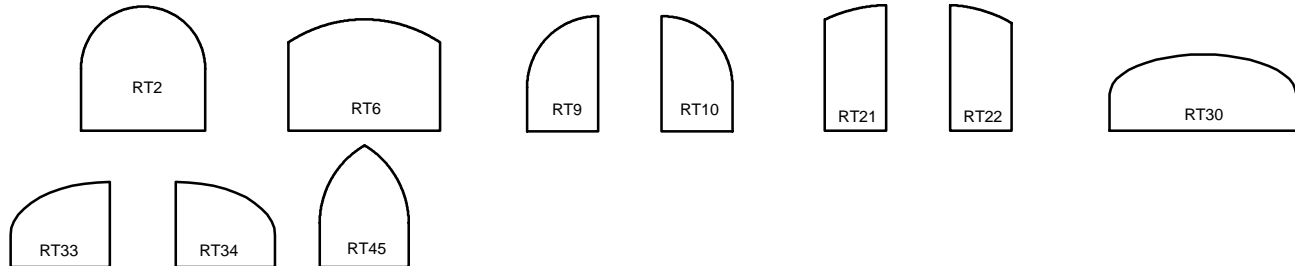
# CLAD ROUND TOP ULTIMATE DH MAGNUM

AVAILABLE SHAPES Subject to approval


























## Double Hung



## Single Hung



## Transom and Picture

 RT1*	 RT2	 RT6	 RT7*	 RT8*	 RT9	 RT10
 RT17*	 RT18*	 RT21	 RT22	 RT23	 RT24	 RT25
 RT26	 RT29*	 RT30	 RT31*	 RT32*	 RT33	 RT34
 RT42*	 RT43*	 RT45	 RT46*			

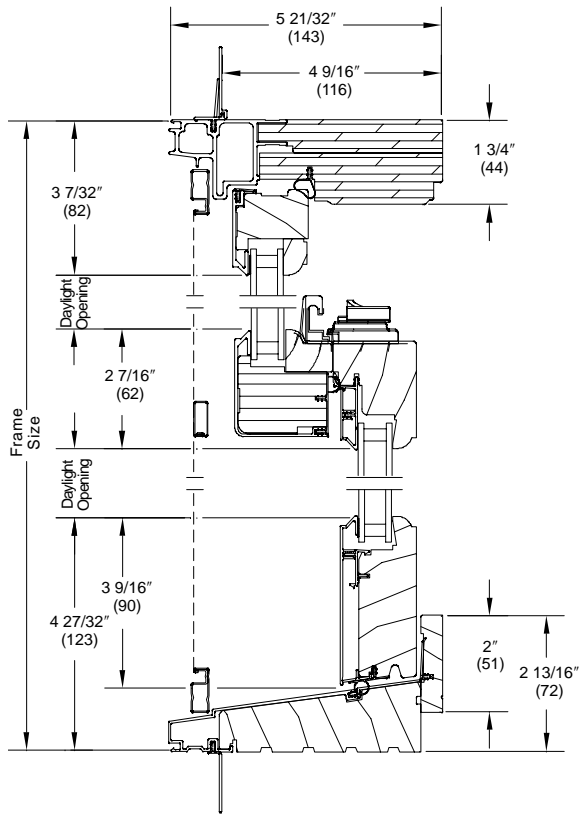
\* Shapes are available in both transoms and pictures units, but may have size limitations. Contact your Marvin representative. Simulated Shapes. Simulated shapes require a minimum springline to bottom of sill height of 2 13/16" (71).

# CLAD ROUND TOP ULTIMATE DH MAGNUM

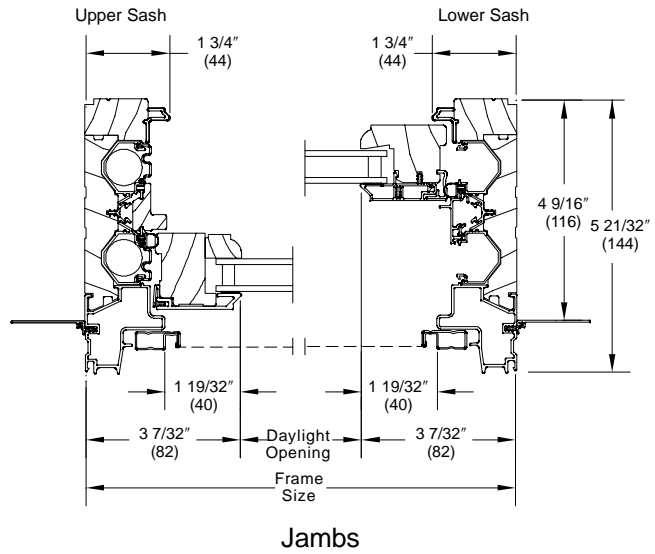
## SECTION DETAILS: DOUBLE HUNG OPERATORS

SCALE: 3" = 1' 0"

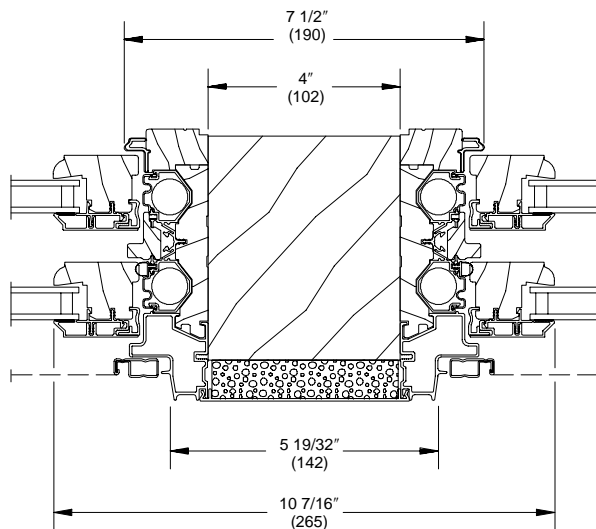
### Double Hung In-Sash Operator



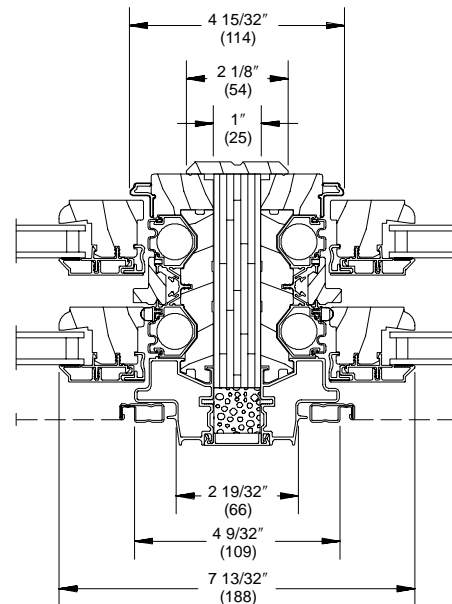
Head Jamb and Sill



Jamb



4" Solid Space Mull



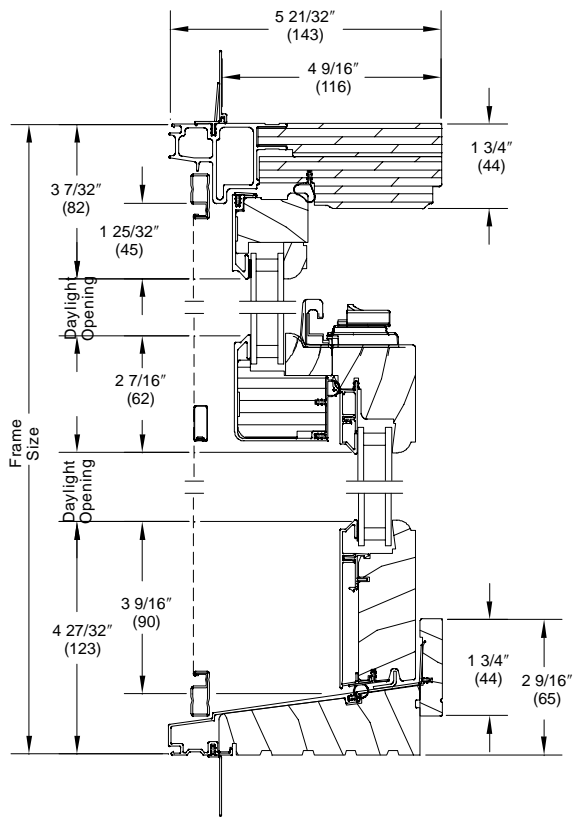
1" Solid Space Mull

# CLAD ROUND TOP ULTIMATE DH MAGNUM

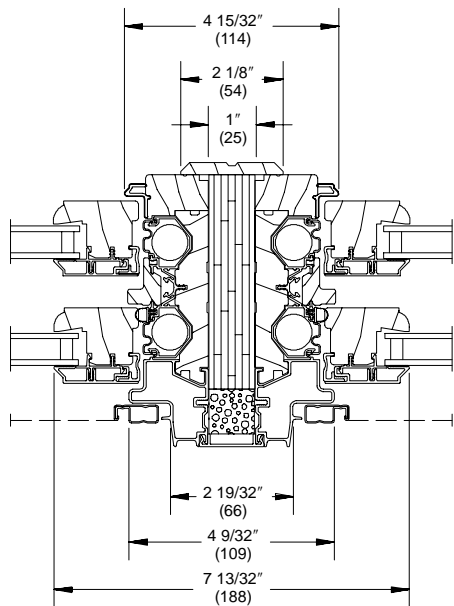
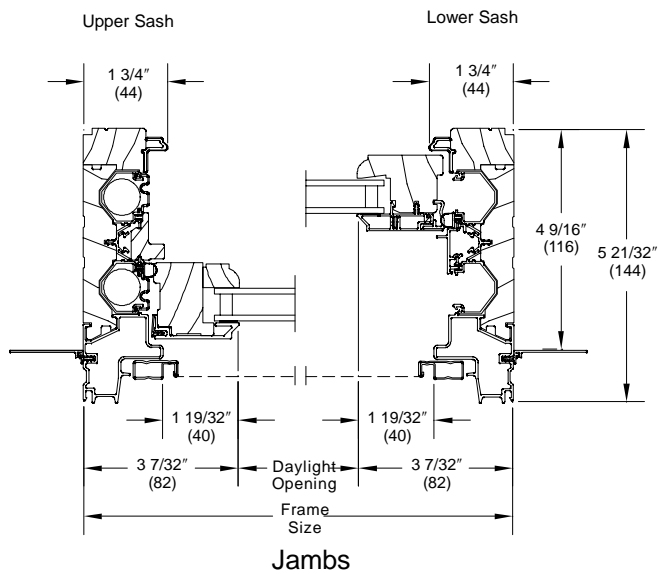
## SECTION DETAILS: SINGLE HUNG OPERATORS

SCALE: 3" = 1' 0"

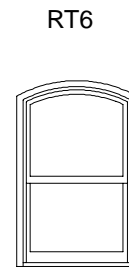
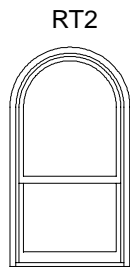
### Single Hung In-Sash Operator



Head Jamb and Sill



1" Solid Space Mull



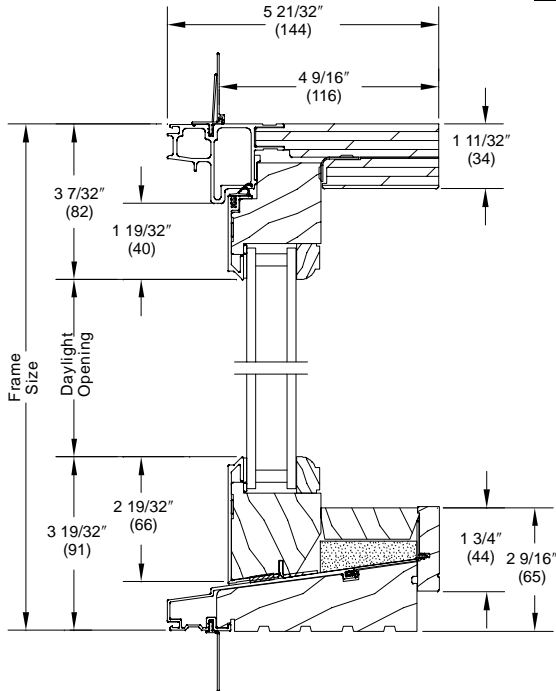
Clad Round Top Ultimate Single Hung Magnum

# CLAD ROUND TOP ULTIMATE DH MAGNUM

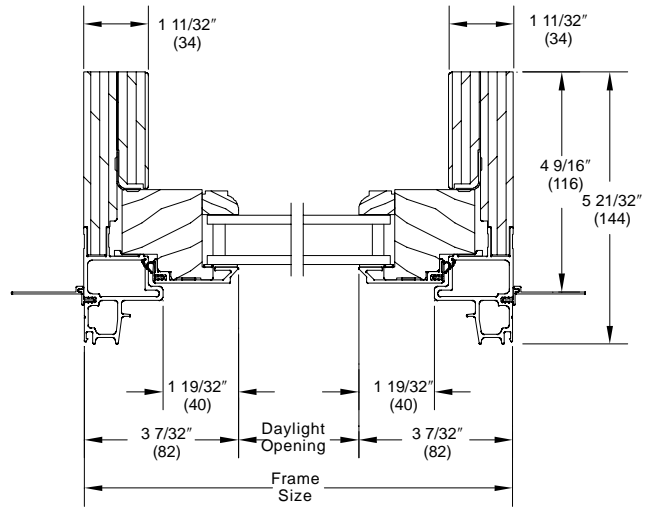
## SECTION DETAILS: TRANSOM / PICTURE

SCALE: 3" = 1' 0"

### Double Hung Transom

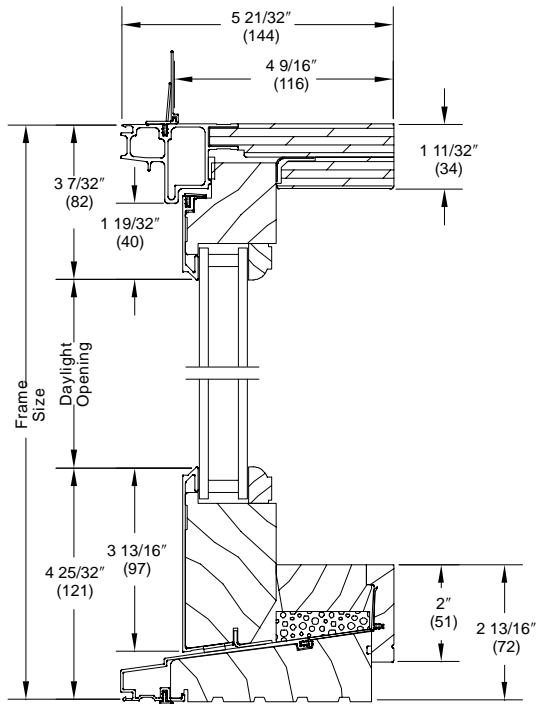


Head Jamb and Sill

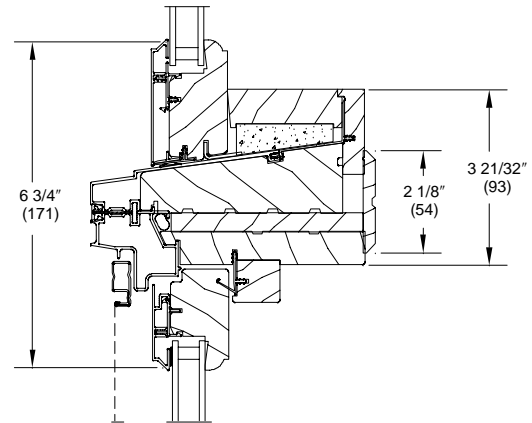


Jamba

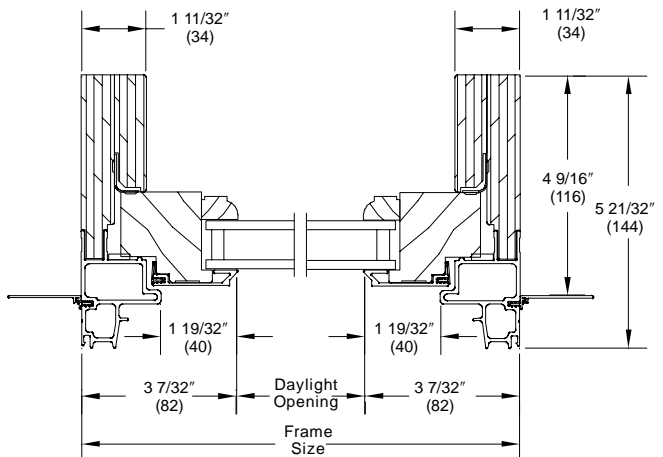
### Double Hung Picture



Head Jamb and Sill



Clad Round Top Ultimate DH Magnum In-Sash over Clad Ultimate Double Hung Magnum

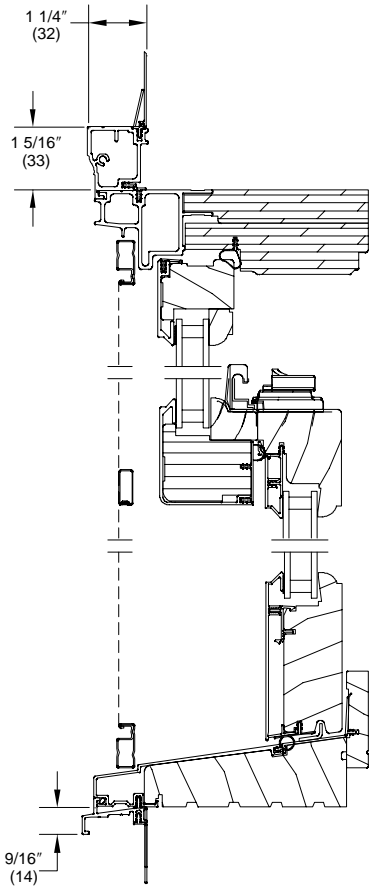


Jamba

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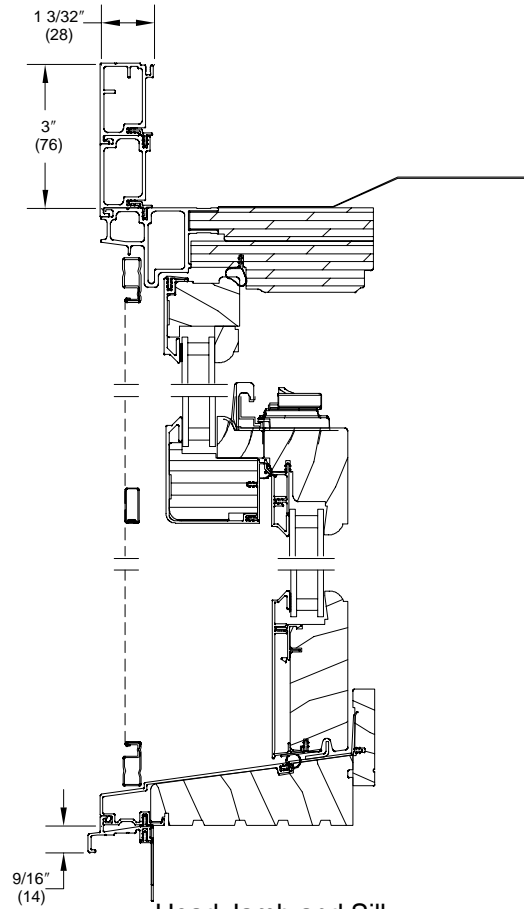
## SECTION DETAILS: CLAD BMC / FLAT CASING / DIVIDED LITE OPTIONS

SCALE: 3" = 1' 0"



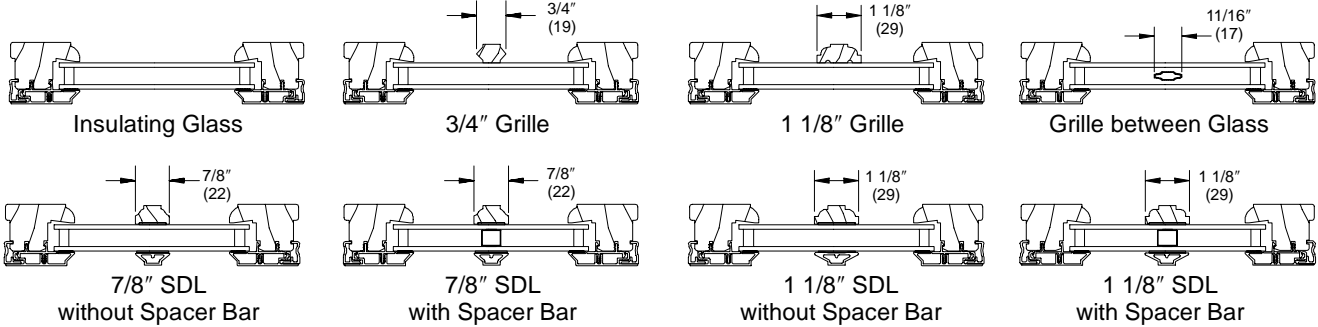
Head Jamb and Sill  
with Clad Brick Mould Casing

### Casing Options

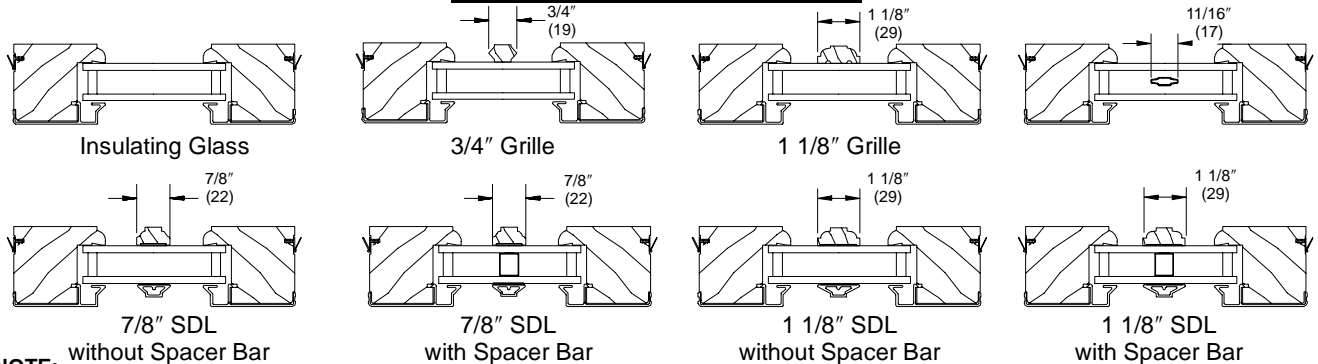


Head Jamb and Sill  
with Clad Flat Casing

### Insulating Glass 1 5/8" Operator In-Sash



### 2" Transom and Picture In-Sash

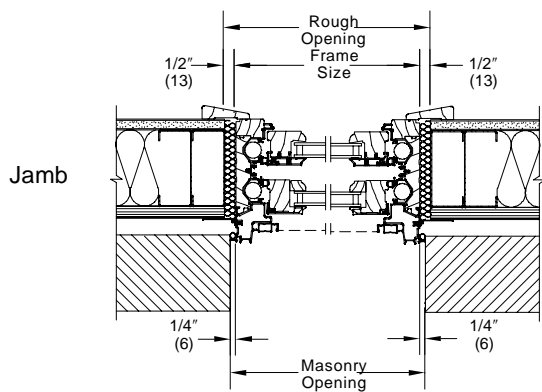
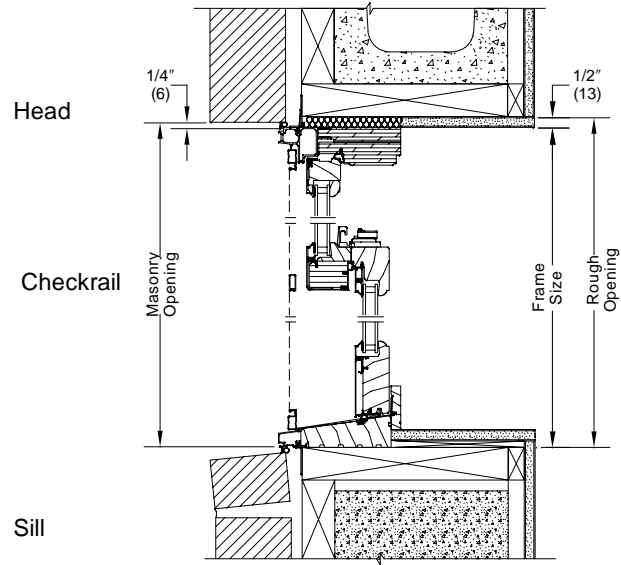
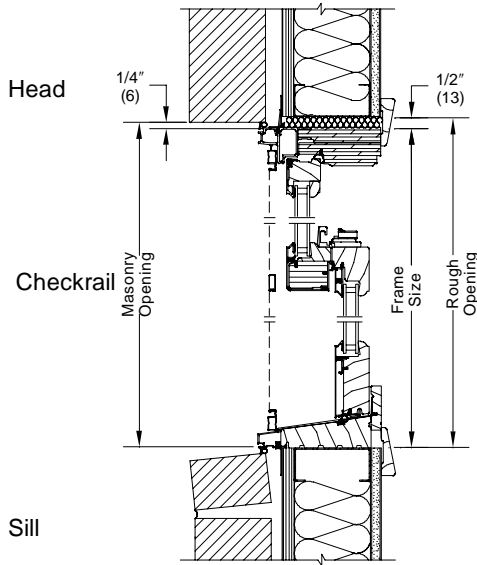


**NOTE:**  
Grille = Removable interior divider  
SDL = Simulated divided lite

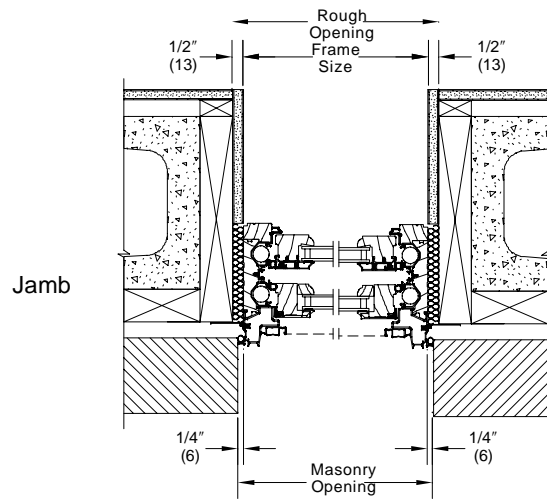
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## SECTION DETAILS: CONSTRUCTION

NOT TO SCALE



Brick Veneer with Steel Stud Construction



Brick Veneer with Concrete Block Construction

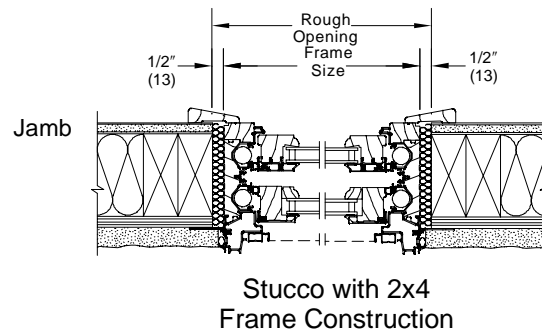
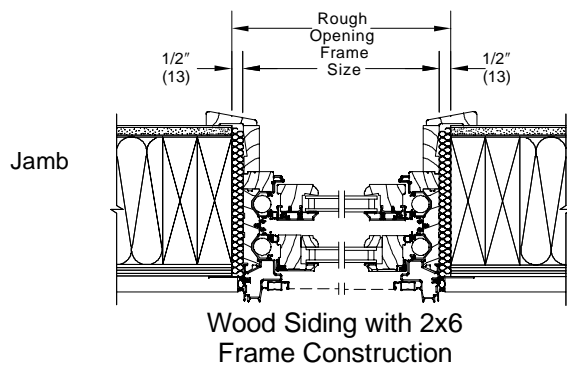
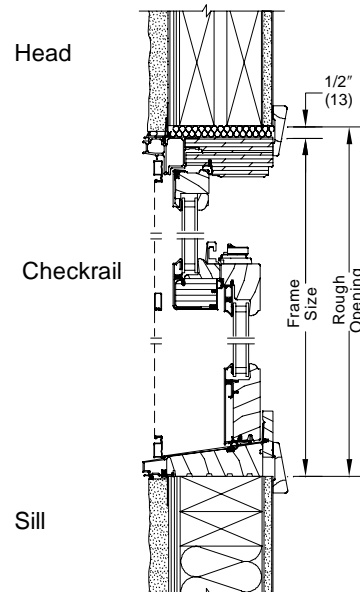
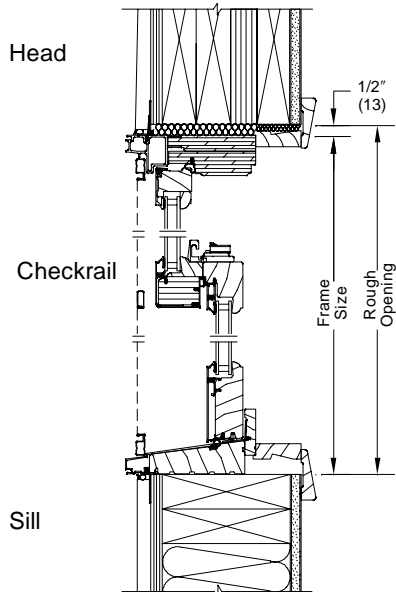
**NOTE:**

The above wall sections represent typical wall conditions, these details are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.

# CLAD ROUND TOP ULTIMATE DH MAGNUM

## SECTION DETAILS: CONSTRUCTION

NOT TO SCALE



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The above wall sections represent typical wall conditions, these details are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.