

# Modern Direct Glaze

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**Unit Features: Modern Direct Glaze Rectangle and Polygon**

Modern Direct Glaze Polygon: MDG POLY

Modern Direct Glaze Rectangle/Square: MDG RECT

**Frame:**

- High-Density Fiberglass exterior with aluminum interior covers
- Jamb Depth: 4 1/2" (114)
- Frame thickness: 1 7/16" (37)
- Minimum frame angle 15°
- Vinyl Nailing Fin: 2" (51)
- Optional Frame Filler

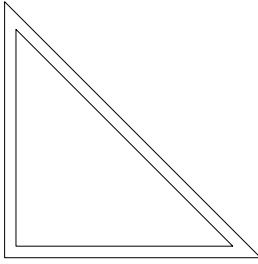
**Glass and Glazing:**

- All glass is of select quality complying with commercial industry standards.
- Glazing seal: Black silicone beading, exterior
- Dual-pane insulating glass thickness: 15/16" (23) or 1 1/4" (32).
- Triple-pane insulating glass thickness: 1 1/4" (32).
- Insulating Glass Coatings: Low E1, Low E2, Low E3, Low ERS, Low ELR
- Gas Fill: Air, Argon, Argon-Krypton
- Other Glass Types: Gray or Bronze Tint, Obscure, Frost
- Glass panes are based on overall unit size and may be 3.1, 3.9, 4.7, 5.7 and 8.0 mm thicknesses
- Low ELR units to 5.7mm sizes and below
- Tint limited to 5.7mm pane thickness and 15/16" glass make-up.
- Frost is limited to 5.7mm and 3.9mm pane thicknesses
- Obscure (Pattern 62) glass is limited to 4.7mm pane thickness and below
- Black Spacer Bar
  - Black Stainless Steel Spacer on shapes with angles greater than 45 degrees
  - Black Aluminum spacer on shapes with angle less than 45 degrees

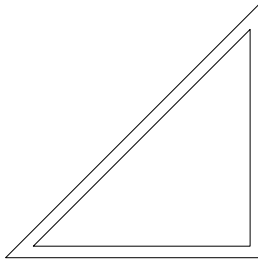
**Mulling Options:**

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

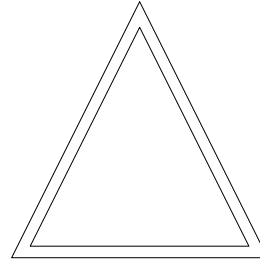
**Modern Direct Glaze Polygon Shape Reference**



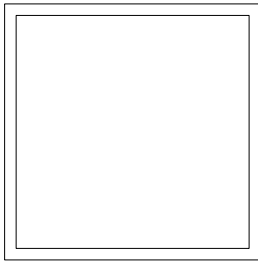
Right Triangle Right  
P3-1



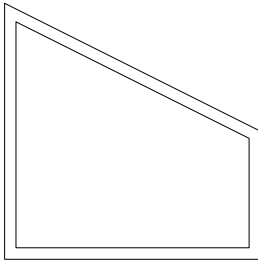
Right Triangle Left  
P3-2



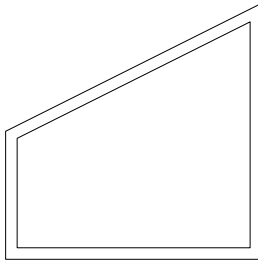
Isosceles Triangle  
P3-5



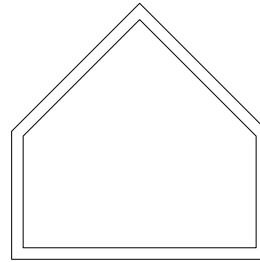
Rectangle / Square  
P4-0



Trapezoid Right Hand  
P4-6



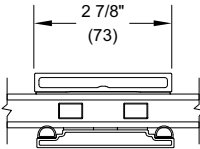
Trapezoid Left Hand  
P4-5



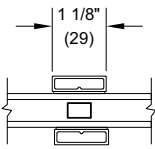
Pentagon  
P5-1

Please contact your Marvin representative for availability and more information.

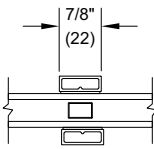
**Divided Lite Options**



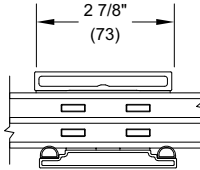
2 7/8" SDL  
15/16" Dual Pane



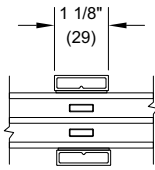
1 1/8" SDL  
15/16" Dual Pane



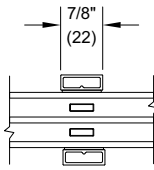
7/8" SDL  
15/16" Dual Pane



2 7/8" SDL  
1 1/4" Tripane



1 1/8" SDL  
1 1/4" Tripane



7/8" SDL  
1 1/4" Tripane

**Minimum and Maximum Guidelines: Modern Direct Glaze Polygon**

Direct Glaze Minimum and Maximum Frame Size Glass size up to 92 x 140 with 8 mm pane thickness (WDMA and NFRC certified)														
Configuration		Unit Shape	Minimum Frame Size						Maximum Frame Size				Glass Limit	
			Width		Height		Min Short Length		Long Leg Max Overall		Short Leg Max Overall			
			in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
MDG	Insulating Glass	Rectangle/Square (P4-Rect)	12	(305)	12	(305)			141 3/8	(3591)	93 3/8	(2372)	89.44	8.31
MDG	Insulating Glass	Triangles (P3-1,2,5)	23	(584)	23 1/2	(597)			141 3/8	(3591)	93 3/8	(2372)	89.44	8.31
MDG	Insulating Glass	Trapezoid (P4-5,6)	15	(381)	15 1/2	(394)	12	(305)	141 3/8	(3591)	93 3/8	(2372)	89.44	8.31
MDG	Insulating Glass	Pentagon (P5-1)	15	(381)	15 1/2	(394)	12	(305)	141 3/8	(3591)	93 3/8	(2372)	89.44	8.31

Direct Glaze Minimum and Maximum Frame Size Tri-Pane Glass size up to 60 x 91 with 4.7 mm pane thickness (WDMA and NFRC certified)														
Configuration		Unit Shape	Minimum Frame Size						Maximum Frame Size				Glass Limit	
			Width		Height		Min Short Length		Long Leg Max Overall		Short Leg Max Overall			
			in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
MDG	Insulating Glass	Rectangle/Square (P4-Rect)	14	(356)	14	(356)			60	(1524)	90	(2286)	31.00	2.88
MDG	Insulating Glass	Triangles (P3-1,2,5)	14	(356)	14	(356)			60	(1524)	90	(2286)	31.00	2.88
MDG	Insulating Glass	Trapezoid (P4-5,6)	14	(356)	14	(356)	14	(356)	60	(1524)	90	(2286)	31.00	2.88
MDG	Insulating Glass	Pentagon (P5-1)	14	(356)	14	(356)	14	(356)	60	(1524)	90	(2286)	31.00	2.88

*NOTE: Angles less than 45 degrees are limited to 82.00" short leg max overall  
Single glaze is not available*

**Certified Sizes and Ratings**

Commercial Rating									
Product	Air Tested to PSF	Water Tested to psf	Structural Tested psf	Performance Grade (PG)	Certification Rating	Max Overall Width		Max Overall Height	
						in	mm	in	mm
Direct Glaze Unit	6.24	12.1	60.0	40	CW-PG40-FW	141 3/8	(3591)	93 3/8	(2372)
Direct Glaze Unit	6.24	12.1	60.0	40	CW-PG40-FW	93 3/8	(2372)	141 3/8	(3591)
Direct Glaze Unit	6.24	12.1	90.0	60	CW-PG60-FW	141 3/8	(3591)	93 3/8	(2372)
Direct Glaze Unit	6.24	12.1	90.0	60	CW-PG60-FW	93 3/8	(2372)	141 3/8	(3591)
*Direct Glaze Assembly	1.57	7.5	60.0	40	CW-PG40-FW	168	(4267)	96	(2438)
*Direct Glaze Assembly	1.57	7.5	60.0	40	CW-PG40-FW	96	(2438)	168	(4267)
**Direct Glaze Unit	6.24	12.1	60.0	40	CW-PG40-FW	121 3/8	(3083)	62 9/16	(1589)
**Direct Glaze Unit	6.24	12.1	60.0	40	CW-PG40-FW	62 9/16	(1589)	121 3/8	(3083)
**Direct Glaze Unit	6.24	12.1	90.0	60	CW-PG60-FW	121 3/8	(3083)	62 9/16	(1589)
**Direct Glaze Unit	6.24	12.1	90.0	60	CW-PG60-FW	62 9/16	(1589)	121 3/8	(3083)

\*84" maximum tributary span

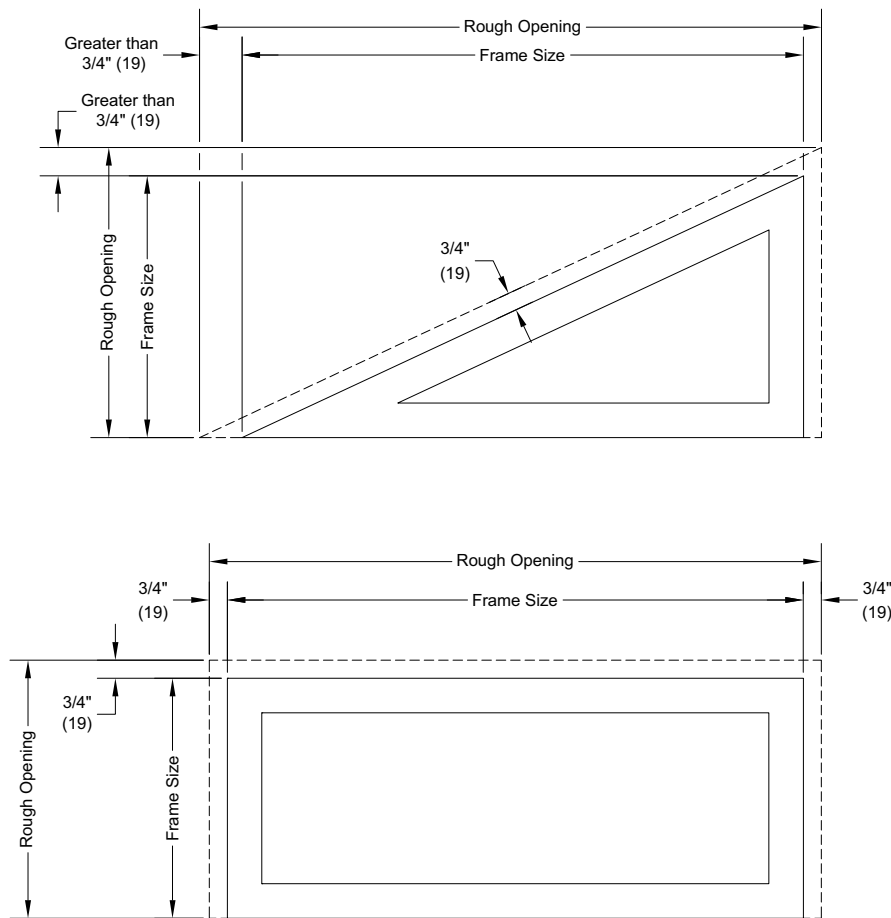
\*\*Largest size with annealed glass

NOTE: Certification based upon AAMA/WDMA/CSA 101/I.S.2/A440-08

**Measurement Conversions: Modern Direct Glaze Polygon**

Unit Measurements		Width		Height	
From	To				
<b>Rough Opening</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Masonry Opening	Rough Opening	+ 1	(25)	+ 1/2	(13)
OM of Frame	Rough Opening	+ 1 1/2	(38)	+ 3/4	(19)
Daylight Opening	Rough Opening	+ 4 23/64	(111)	+ 3 39/64	(92)
<b>Frame</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Daylight Opening	OM of Frame	+ 2 55/64	(73)	+ 2 55/64	(36)
<b>Glass</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	Glass	- 1 3/8	(-35)	- 1 3/8	(-35)
Daylight Opening	Glass	+ 1 31/64	(38)	+ 1 31/64	(38)

**NOTE:** Minimum angle on any shape is 15 degrees.



**NOTE:** 3/4" (19) Rough Opening tolerance is maintained perpendicular to the frame of polygon units.

1/4" (6) Masonry Opening tolerance is maintained perpendicular to the frame or casing of polygon units.

Measurement tolerances vary due to polygon angles. Specify either Frame Size or Rough Opening measurement, Marvin will calculate the appropriate tolerances.



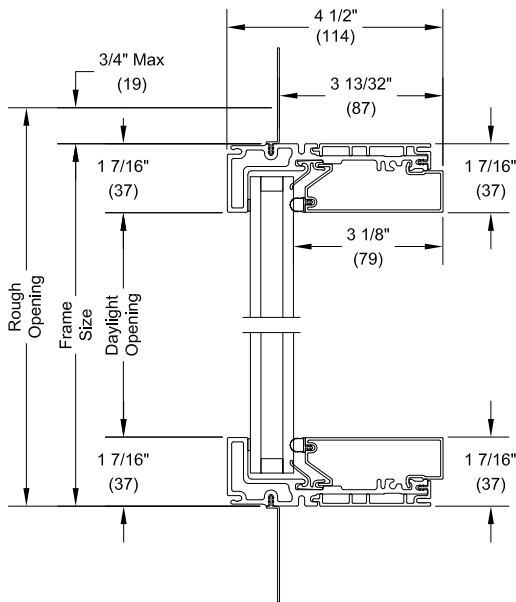
**Slope To Angle and Angle to Pitch Conversion - Modern Direct Glaze Polygon**

Slope to Angle /Degree Conversions		
Slope	Angle	Degree / Minutes
1/12	4.76	4 degree 46'
2/12	9.46	9 degree 28'
3/12	14.04	14 degree 2'
4/12	18.43	18 degree 26'
5/12	22.62	22 degree 37'
6/12	26.57	26 degree 34'
7/12	30.26	30 degree 15'
8/12	33.69	33 degree 41'
9/12	36.87	36 degree 52'
10/12	39.81	39 degree 48'
11/12	42.51	42 degree 31'
12/12	45.00	45 degree 0'
13/12	47.29	47 degree 14'
14/12	53.13	49 degree 24'
15/12	54.78	51 degree 20'
16/12	56.31	53 degree 8'
17/12	54.78	54 degree 47'
18/12	56.31	56 degree 19'
19/12	57.72	57 degree 43'
20/12	59.04	59 degree 2'
21/12	60.26	60 degree 15'
22/12	61.39	61 degree 23'
23/12	62.45	62 degree 27'
24/12	63.43	63 degree 26'

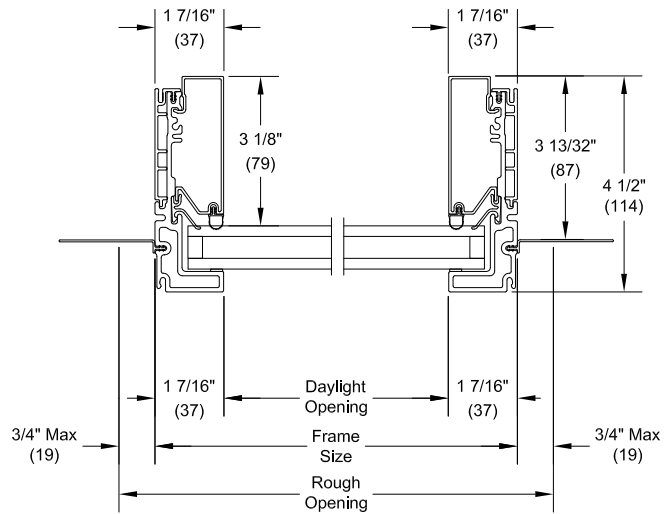
Angle to Pitch Conversions					
Angle	Pitch	Angle	Pitch	Angle	Pitch
1	0.21/12	31	7.21/12	61	21.65/12
2	0.42/12	32	7.50/12	62	22.57/12
3	0.63/12	33	7.79/12	63	23.55/12
4	0.84/12	34	8.09/12	64	24.60/12
5	1.05/12	35	8.40/12	65	25.73/12
6	1.26/12	36	8.72/12	66	26.95/12
7	1.47/12	37	9.04/12	67	28.27/12
8	1.69/12	38	9.38/12	68	29.70/12
9	1.90/12	39	9.72/12	69	31.26/12
10	2.12/12	40	10.07/12	70	32.97/12
11	2.33/12	41	10.43/12	71	34.85/12
12	2.55/12	42	10.80/12	72	36.93/12
13	2.77/12	43	11.19/12	73	39.25/12
14	2.99/12	44	11.59/12	74	41.85/12
15	3.22/12	45	12.00/12	75	44.78/12
16	3.44/12	46	12.43/12	76	48.13/12
17	3.67/12	47	12.87/12	77	51.98/12
18	3.90/12	48	13.33/12	78	56.56/12
19	4.13/12	49	13.80/12	79	61.73/12
20	4.37/12	50	14.30/12	80	68.06/12
21	4.61/12	51	14.82/12	81	75.77/12
22	4.85/12	52	15.36/12	82	85.38/12
23	5.09/12	53	15.92/12	83	97.73/12
24	5.34/12	54	16.52/12	84	114.17/12
25	5.60/12	55	17.14/12	85	137.16/12
26	5.85*12	56	17.79/12	86	171.61/12
27	6.11/12	57	18.48/12	87	228.97/12
28	6.38/12	58	19.20/12	88	343.64/12
29	6.65/12	59	19.97/12	89	687.48/12
30	6.93/12	60	20.78/12		

**Section Details: Modern Direct Glaze - Rectangle (Dual-Pane)**

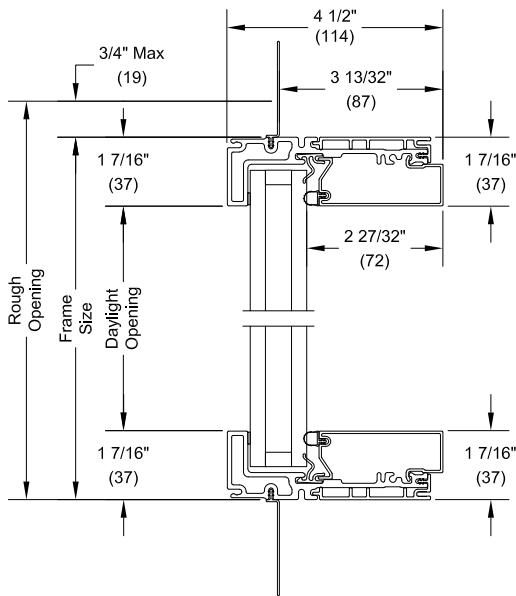
Scale: 3' = 1' 0"



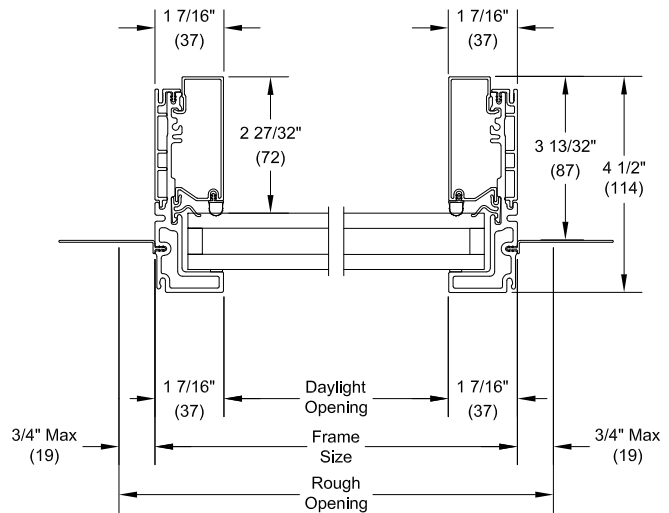
**Direct Glaze Rectangle  
Head Jamb and Sill with 15/16" Dual-Pane**



**Direct Glaze Rectangle  
Jambs with 15/16" Dual-Pane**



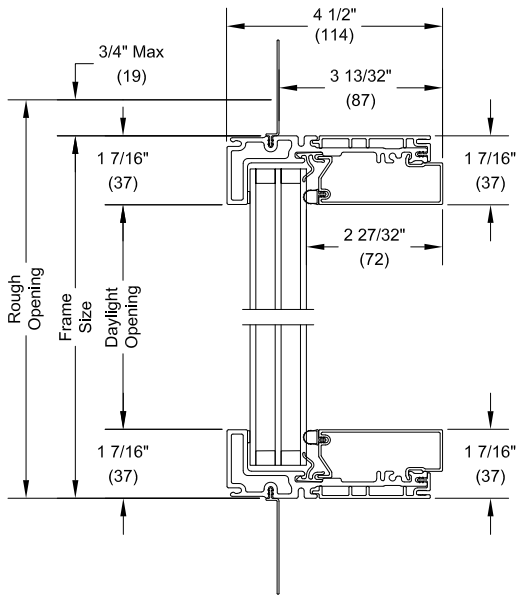
**Direct Glaze Rectangle  
Head Jamb and Sill with 1 1/4" Dual-Pane**



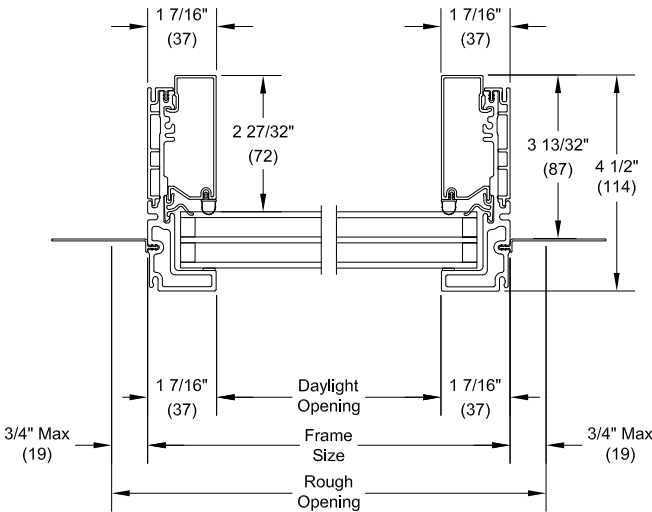
**Direct Glaze Rectangle  
Jambs with 1 1/4" Dual-Pane**

**Section Details: Modern Direct Glaze - Rectangle (Triple-Pane)**

Scale: 3' = 1' 0"



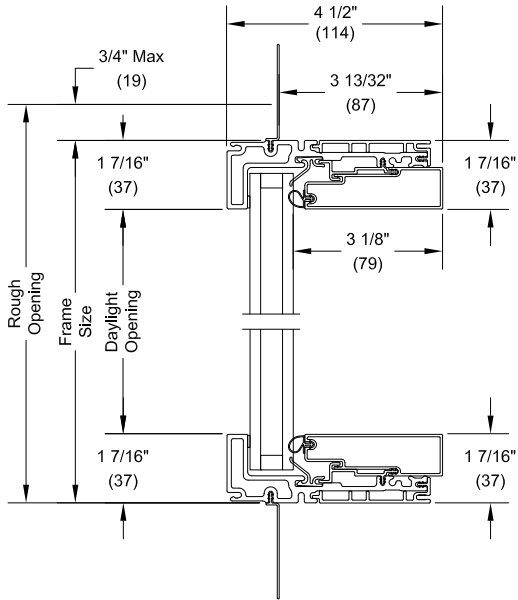
Direct Glaze Rectangle  
Head Jamb and Sill with 1 1/4" Triple-Pane



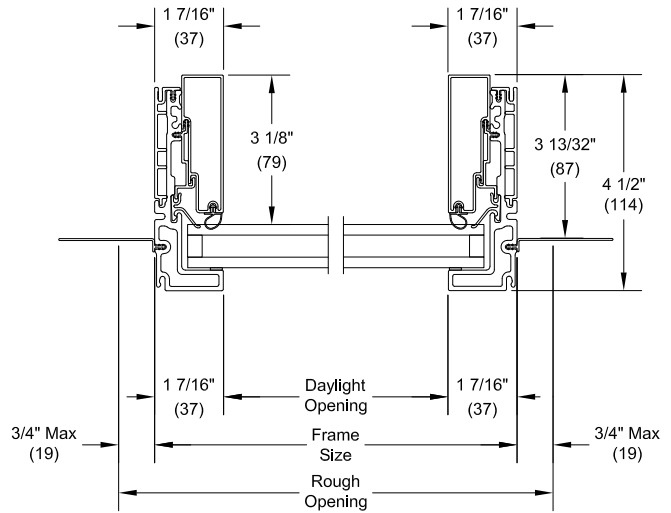
Direct Glaze Rectangle  
Jamb with 1 1/4" Triple-Pane

**Section Details: Modern Direct Glaze - Polygon (Dual-Pane)**

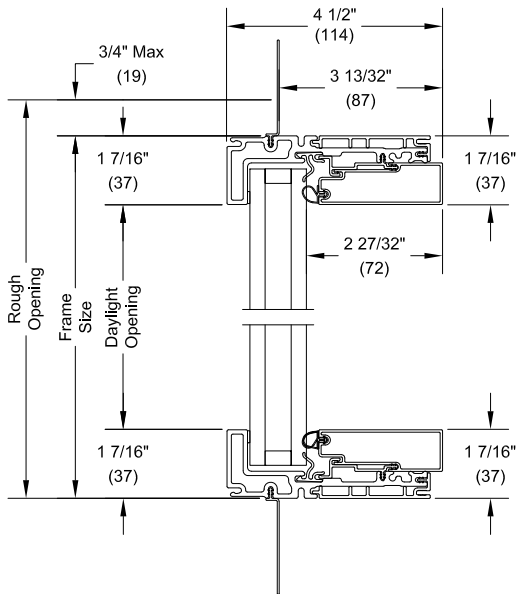
Scale: 3' = 1' 0"



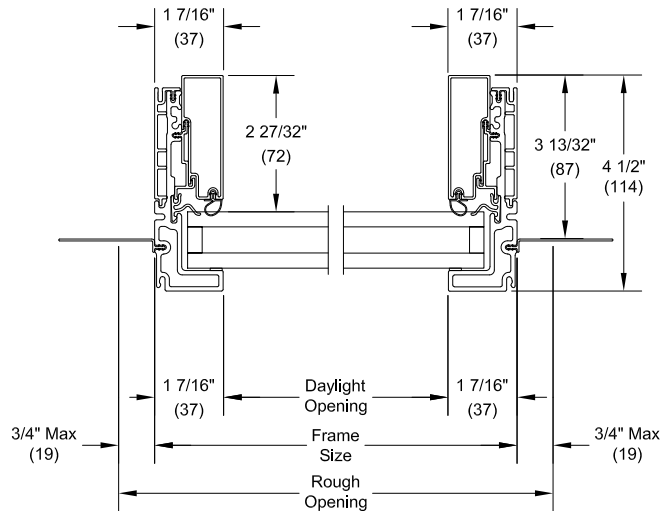
Direct Glaze Polygon  
Head Jamb and Sill With 15/16" Dual-Pane



Direct Glaze Polygon  
Jambs With 15/16" Dual-Pane



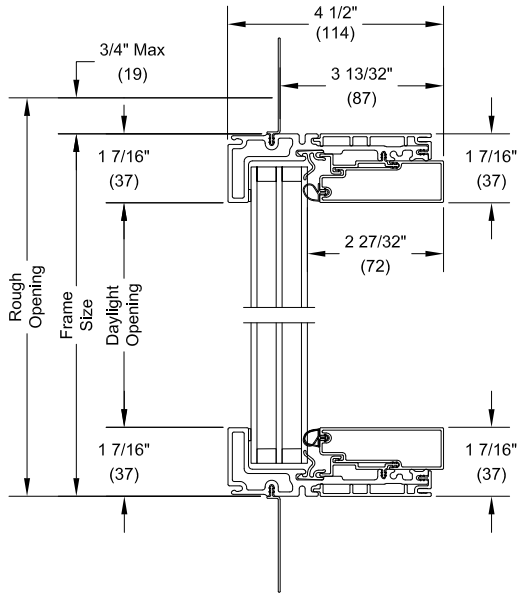
Direct Glaze Polygon  
Head Jamb and Sill With 1 1/4" Dual-Pane



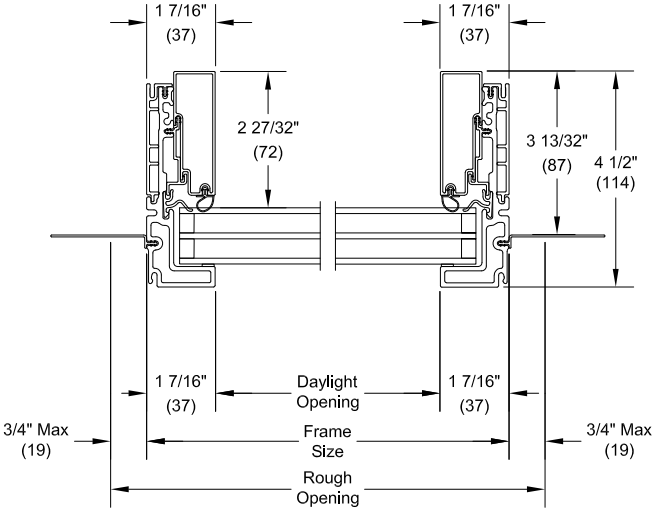
Direct Glaze Polygon  
Jambs With 1 1/4" Dual-Pane

**Section Details: Modern Direct Glaze - Polygon (Triple-Pane)**

Scale: 3' = 1' 0"

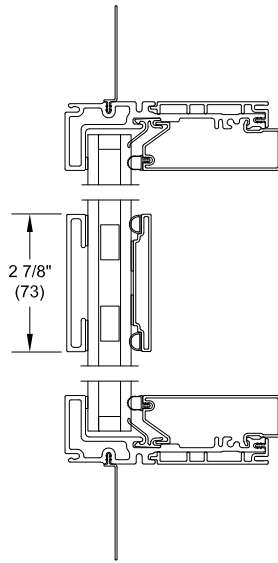


**Direct Glaze Polygon  
Head Jamb and Sill With 1 1/4" Triple-Pane**

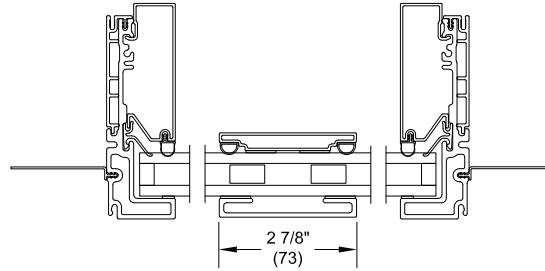


**Direct Glaze Polygon  
Jambs With 1 1/4" Triple-Pane**

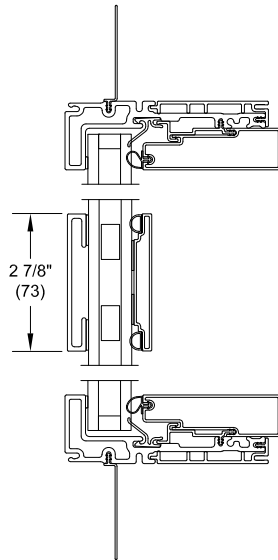
**Section Details: Modern Direct Glaze - Simulated Frame Divider (Dual-Pane)**



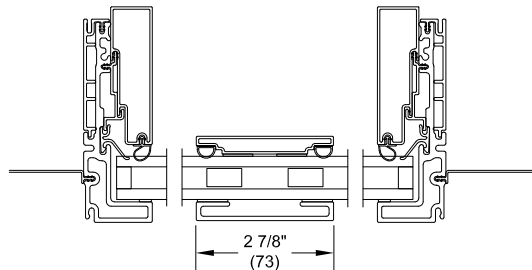
Direct Glaze - Rectangle  
Head Jamb and Sill  
Dual-Pane Glass  
Simulated Frame - 2 7/8"



Direct Glaze - Rectangle  
Jambs  
Dual-Pane Glass  
Simulated Frame - 2 7/8"

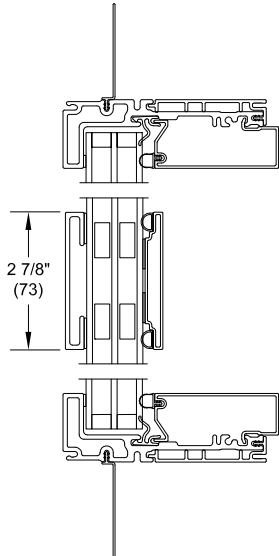


Direct Glaze - Polygon  
Head Jamb and Sill  
Dual-Pane Glass  
Simulated Frame - 2 7/8"

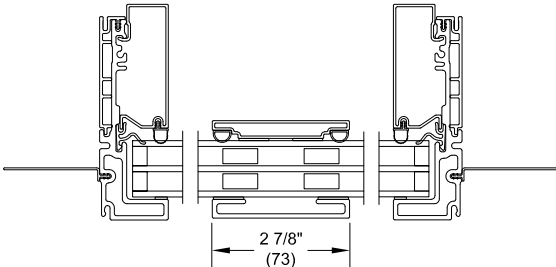


Direct Glaze - Polygon  
Jambs  
Dual-Pane Glass  
Simulated Frame - 2 7/8"

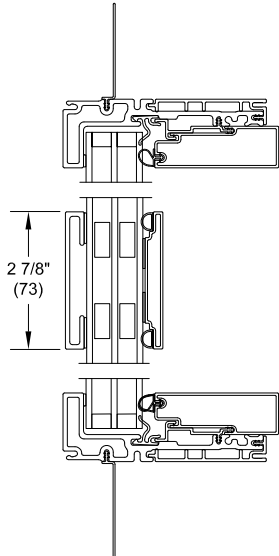
**Section Details: Modern Direct Glaze - Simulated Frame Divider (Triple-Pane)**



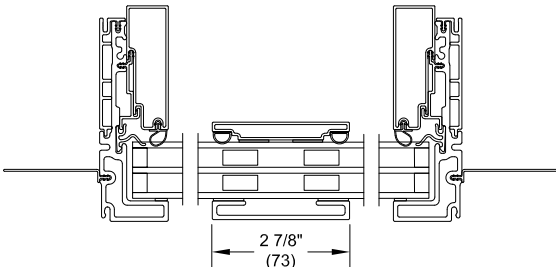
Direct Glaze - Rectangle  
Head Jamb and Sill  
1 1/4" Triple-Pane Glass  
Simulated Frame - 2 7/8"



Direct Glaze - Rectangle  
Jambs  
1 1/4" Triple-Pane Glass  
Simulated Frame - 2 7/8"

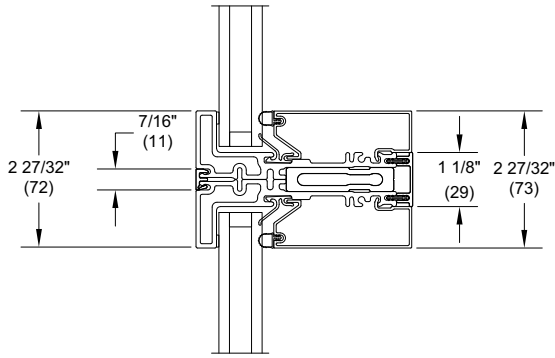


Direct Glaze - Polygon  
Head Jamb and Sill  
1 1/4" Triple-Pane Glass  
Simulated Frame - 2 7/8"

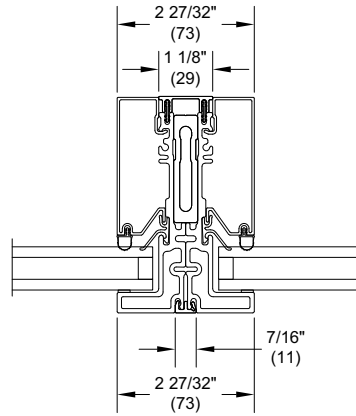


Direct Glaze - Polygon  
Jambs  
1 1/4" Triple-Pane Glass  
Simulated Frame - 2 7/8"

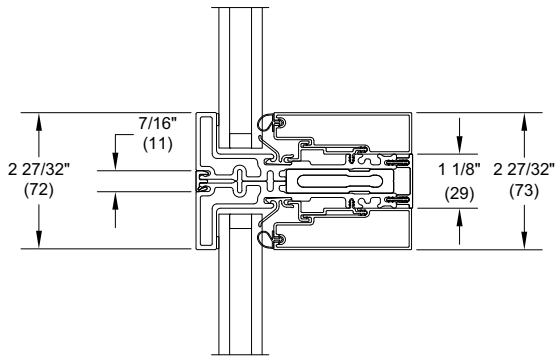
**Section Details: Modern Direct Glaze - Mullions**



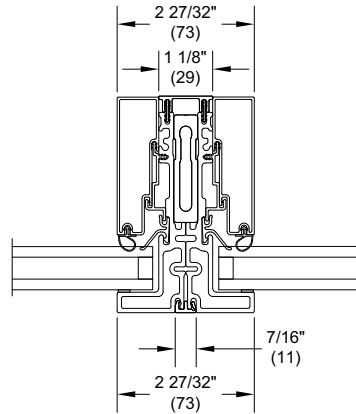
Direct Glaze Rectangle  
Head Jamb and Sill



Direct Glaze Rectangle  
Jambs



Direct Glaze - Polygon  
Head Jamb and Sill



Direct Glaze Polygon  
Jambs

*NOTE: Refer to the Mull ADM for more information on mulling options.*