

# Ultimate Double Hung Tilt Pacs

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**Unit Features**

Ultimate Double Hung Tilt Pac: UDHTP

Ultimate Double Hung Magnum Tilt Pac: UDHMTP

**Sash:**

- Ultimate Double Hung Tilt Pac
  - Sash thickness: 1 5/16" (33)
  - Top rail width: 2 15/32" (63)
  - Bottom rail width: 3 3/4" (95)
  - Stile width: 1 25/32" (45)
- Ultimate Double Hung Magnum Tilt Pac
  - Sash thickness: 1 3/4" (44)
  - Top rail width: 2 1/4" (57)
  - Bottom rail width: 3 7/8" (98)
  - Stile width: 2 1/4" (57)
  - Bottom rail bevel 14 degrees
- Removable exterior glazing stops

**Hardware:**

- Lock: high pressure zinc die-cast cam lock and keeper
  - Optional keyed lock
  - Two locks on glass sizes of 36" (914) and wider
  - Color: Satin Taupe
    - Optional: Bronze, White, Plated Brass, Antique Brass, Satin Chrome, Oil Rubbed Bronze, Satin Nickel, Polished Chrome
- Ultimate Double Hung Tilt Pac Balance System: coil spring block and tackle with nylon cord and fiber filled nylon clutch
- Ultimate Double Hung Magnum Tilt Pac: double coil spring block and tackle with nylon cord and fiber filled nylon clutch
- Jamb track: vinyl extrusion, foam backing
  - Color: Beige or White
- Sash retainer plate: standard for magnum units, optional for double hung - polycarbonate theroplastic
  - Color: Bronze or White
- Optional sash lifts: high pressure zinc die-cast
  - Color: Satin Taupe
  - Optional color: Bronze, White or Brass

**Weather Strip:**

- Double Hung weather strip: Dual durometer double leaf at check rail; bulb type dual durometer weather strip at bottom rail
- Double Hung Magnum weather strip: Continuous leaf weather strip at head jamb parting stop which seals against top sash; dual durometer double leaf at check rail; bulb type dual durometer weather strip at bottom rail
- Color: beige for both product types

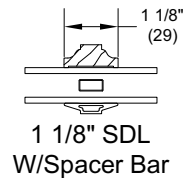
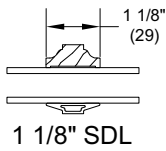
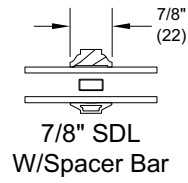
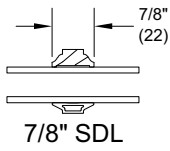
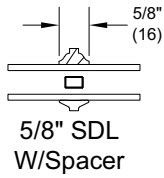
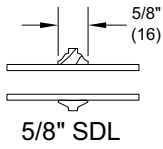
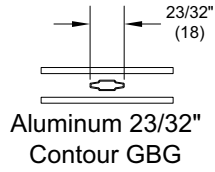
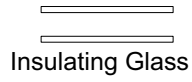
**Insect Screens:**

- Full sized extruded aluminum screen is standard
  - Optional half screen
  - Aluminum surround to match the exterior cladding
  - All screens are shipped loose
- Screen Mesh: Charcoal fiberglass
  - Optional Screen Mesh: Charcoal Aluminum Wire, Black Aluminum Wire, Bright Aluminum Wire, Bright Bronze Wire or Charcoal High Transparency (CH Hi-Tran) fiberglass

**Unit Features****Glass and Glazing:**

- Glazing method: Insulating - Dual Pane
- Glazing seal: Silicone glazed
- Standard glass is Insulating Low E2 Argon or air
- Optional dual-pane glass make-ups:
  - Low E1 Argon or Air,
  - Low E3 Argon or Air,
- Available glass types:
  - Laminated
  - Tempered
  - Obscure
  - Clear
- Tints
  - Bronze
  - Gray
  - Green
  - Reflective Bronze
- Decorative glass options:
  - Frost
  - Reed
  - Narrow Reed
  - Rain
  - Sandblasted
  - Glue Chip
- Glazing will be altitude adjusted for higher elevations with capillary tubes. Argon, Argon-Krypton, and Krypton gas not included
- Egress may be affected when selecting specialty glass, please contact your Marvin representative
- For additional specialty glazing options, please contact your Marvin representatives.

**Divided Lite**



**Min and Max Glass Size**

Unit Type		Min Glass Size				Max Glass Size				Max Glass Size	
		Width		Height		Width		Height			
		in	mm	in	mm	in	mm	in	mm	Sq. Feet	Sq. Meters
UDHTP	Insulating Glass	8	(203)	8	(203)	44	(1118)	48	(1219)	10	0.929
UDHTP	Single Glaze	8	(203)	8	(203)	44	(1118)	48	(1219)	12	1.115
UDHMTP	Insulating Glass	12	(305)	12	(305)	60	(1524)	60	(1524)	18.5	1.719

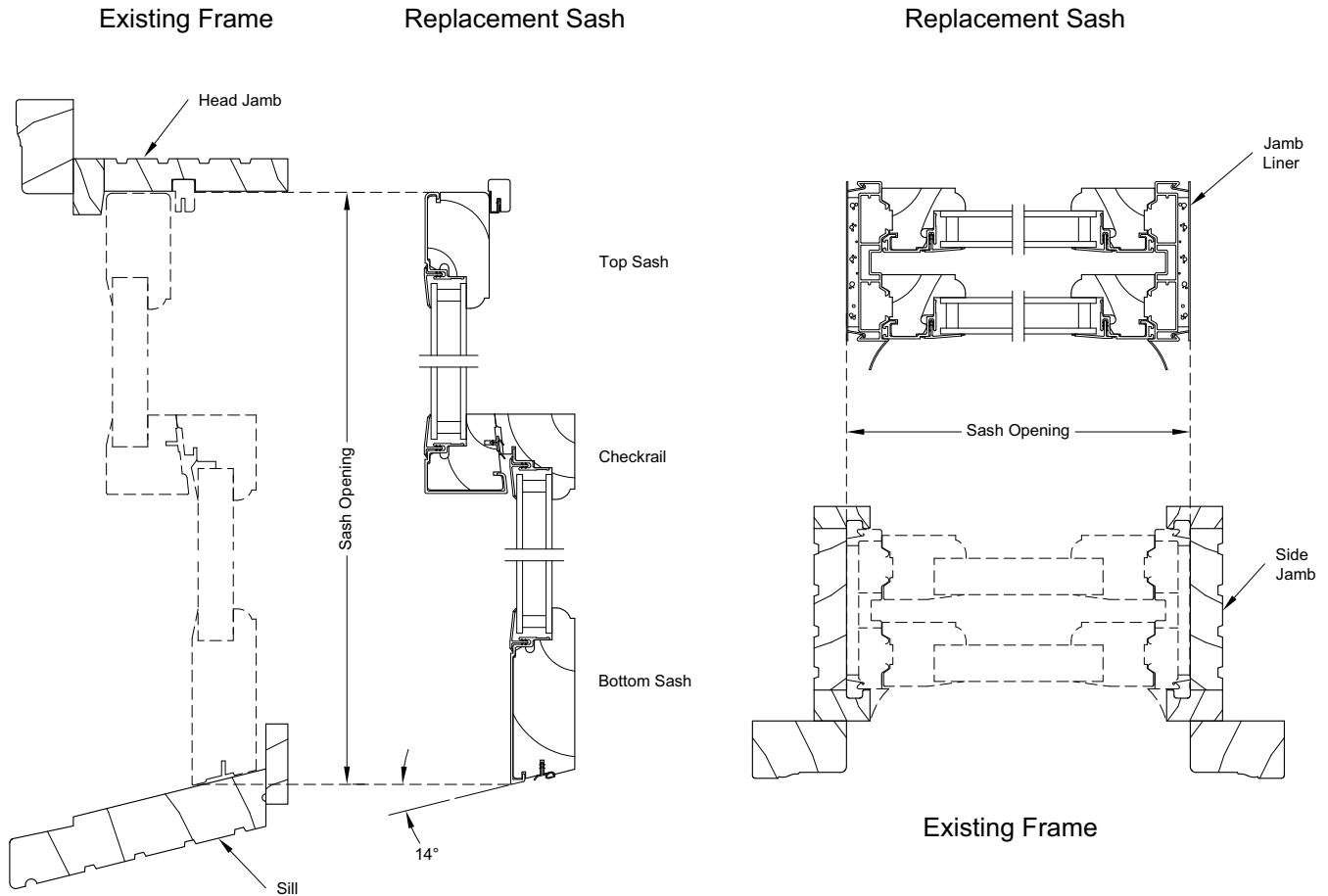
Measurement Conversions

Ultimate Double Hung Tilt Pac						
Unit Measurements		Width		Height		
From	To					
Glass Size:		in	mm		in	mm
Glass size	Daylite Opening	-1 1/16	(27)		-1 1/16	(27)
Glass size	Sash Opening	+ 4	(102)	x 2	+ 6	(152)
Glass size	Outside Measurement Bottom Sash	+ 2 1/2	(64)		+ 4 1/2	(114)
Glass size	Outside Measurement Top Sash	+ 2 1/2	(64)		+ 3 3/32	(79)
Glass size	Rough Opening	+ 6 3/8	(162)		Glass Height X 2 + 8.875 (225)	
Daylight Opening		in	mm		in	mm
Daylight Opening	Sash Opening	+ 5 1/16	(129)	x 2	+ 8 1/8	(206)
Daylight Opening	Outside Measurement Bottom Sash	+ 3 9/16	(90)		+ 5 9/16	(141)
Daylight Opening	Outside Measurement Top Sash	+ 3 9/16	(91)		+ 4 5/32	(106)
Outside Measurement		in	mm		in	mm
Outside Measurement Top Sash	Outside Measurement Bottom Sash	0	(00)	x 2	+ 1 13/32	(36)
Outside Measurement Top Sash	Sash Opening	+ 1 1/2	(38)	x 2	-3/16	(05)
Outside Measurement Bottom Sash	Sash Opening	+ 1 1/2	(38)	x 2	-3	(76)
Rough Opening	Sash Opening	+ 2 3/8	(60)	x 2	+ 2 7/8	(73)

Ultimate Double Hung Magnum Tilt Pac						
Unit Measurements		Width		Height		
From	To					
Glass Size:		in	mm		in	mm
Glass size	Daylite Opening	-1 1/16	(27)		-1 1/16	(27)
Glass size	Sash Opening	+ 5 3/4	(146)	x 2	+ 5 7/8	(149)
Glass size	Outside Measurement Bottom Sash	+ 3 7/16	(87)		+ 4 17/32	(115)
Glass size	Outside Measurement Top Sash	+ 3 7/16	(87)		+ 2 29/32	(74)
Glass size	Rough Opening	+ 8 7/8	(225)		Glass height X 2 + 9.25 (234)	
Daylight Opening		in	mm		in	mm
Daylight Opening	Sash Opening	+ 6 13/16	(173)	x 2	+ 8	(203)
Daylight Opening	Outside Measurement Bottom Sash	+ 4 1/2	(114)		+ 5 19/32	(142)
Daylight Opening	Outside Measurement Top Sash	+ 4 1/2	(114)		+ 3 31/32	(101)
Outside Measurement		in	mm		in	mm
Outside Measurement Top Sash	Sash Opening	0	(00)	x 2	+ 1 5/8	(41)
Outside Measurement Bottom Sash	Sash Opening	+ 2 5/16	(59)	x 2	-1/16	(02)
Outside Measurement Top Sash	Sash Opening	+ 2 5/16	(59)	x 2	-3 3/16	(81)
Outside Measurement Bottom Sash	Sash Opening	+ 3 1/8	(79)	x 2	+ 3 3/8	(86)

**Tilt Pac Measurements**

Scale: 3" = 1'0"



**Instructions:**

Follow these steps to measure an opening for Tilt Pac Replacement Sash

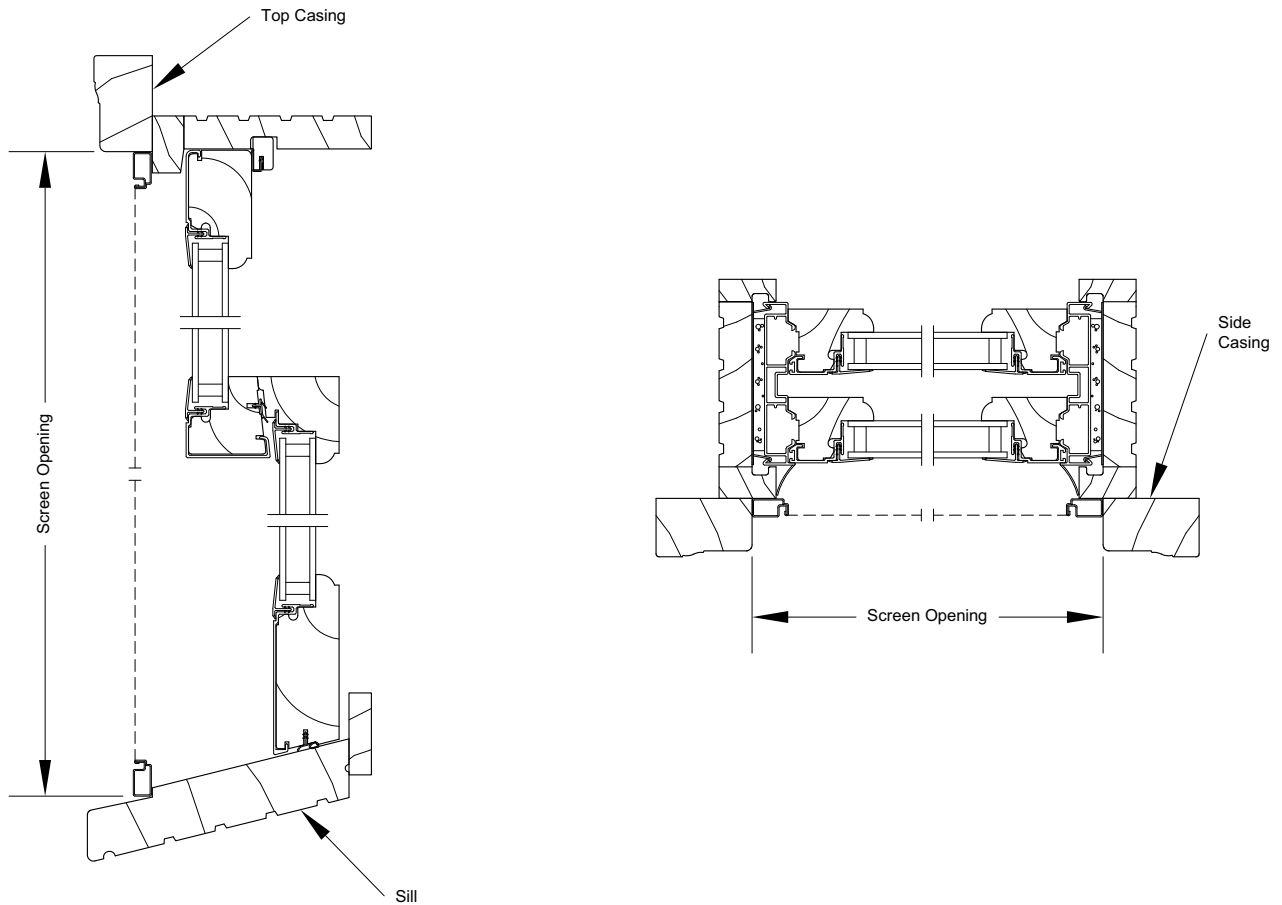
1. To find the sash opening height:  
If the old window has wood blocks holding the top sash in place, remove them. Lower the top sash for measuring clearance, then measure the height of the window from where the top sash meets the head jamb to where the bottom sash meets the sill when the bottom sash is fully closed.
2. To find the sash opening width:  
Take an inside measurement of the frame from jamb to jamb.
3. To find the sill angle:  
Raise the bottom sash and place a carpenter's protractor on the sill, the angle will register. Marvin's standard bottom rail angle is 14 degrees, other angles must be specified.

*NOTE: Double Hung sash shown above. Instructions and measuring locations apply to Single Hung, Magnum Double / Single Hung sash.*



**Tilt Pac Full Screen Measurements**

Scale: 3" = 1'0"



**Instructions:**

To insure a proper screen fit, it is recommended to order a screen after the Tilt Pac installation.

1. To find the screen opening height:  
Measure from the top casing to the edge of where the screen will rest at the sill, minus 3/32" (2) for the outside measurement (OSM) of the screen height.
2. To find the screen opening width:  
Measure from the inside edge of the side casing to the inside edge of the opposite side casing, minus 1/8" (3) for the outside measurement (OSM) of the screen width.

*NOTE: Double Hung sash and screen are shown above. Instructions and measuring locations apply to Single Hung, Magnum Double / Single Hung sash. Screen measuring instructions also apply to combination storm / Screen measurements. standard angle on combination bottom rails is 14 degrees, other angles must be specified.*

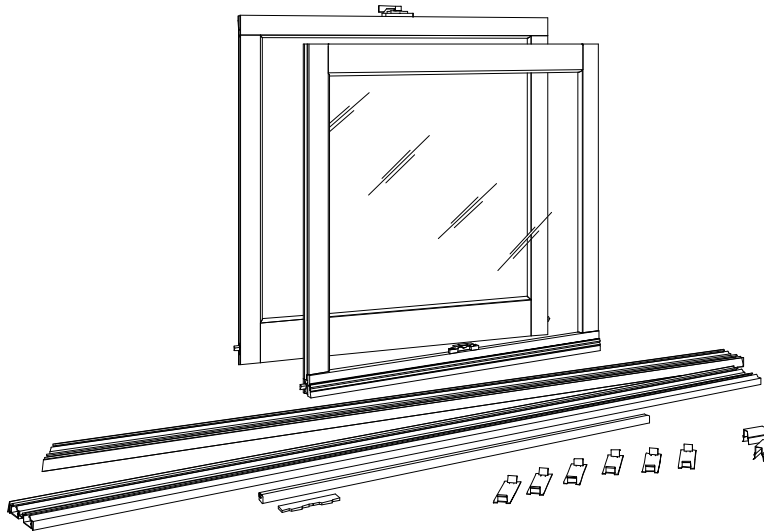
**Standard Unit Measurements**

Tilt Unit Measurements				
Width				
CN	Sash Opening		Daylight Opening Double Hung Tilt Pac	
	ft - in	mm	ft - in	mm
16	1-8	(508)	1-2 15/16	(379)
20	2-0	(610)	1-6 15/16	(481)
24	2-4	(711)	1-10 15/16	(583)
26	2-6	(762)	2-0 15/16	(633)
28	2-8	(813)	2-2 15/16	(684)
24	2-4	(711)	1-10 15/16	(583)
30	2-10	(864)	2-4 15/16	(735)
32	3-0	(914)	2-6 15/16	(786)
36	3-4	(1016)	2-10 15/16	(887)

Tilt Pac Unit Measurements				
Height				
CN	Sash Opening		Daylight Opening Double Hung Tilt Pac	
	ft - in	mm	ft - in	mm
12	2-6	(762)	0-10 15/16	(278)
14	2-10	(864)	1-0 15/16	(329)
16	3-2	(965)	1-2 15/16	(379)
18	3-6	(1067)	1-4 15/16	(430)
20	3-10	(1168)	1-6 15/16	(481)
22	4-2	(1270)	1-8 15/16	(532)
24	4-6	(1372)	1-10 15/16	(583)
26	4-10	(1473)	2-0 15/16	(633)
28	5-2	(1575)	2-2 15/16	(684)
30	5-6	(1676)	2-4 15/16	(735)
32	5-10	(1778)	2-6 15/16	(786)
34	6-2	(1880)	2-8 15/16	(837)
36	6-6	(1981)	2-10 15/16	(887)

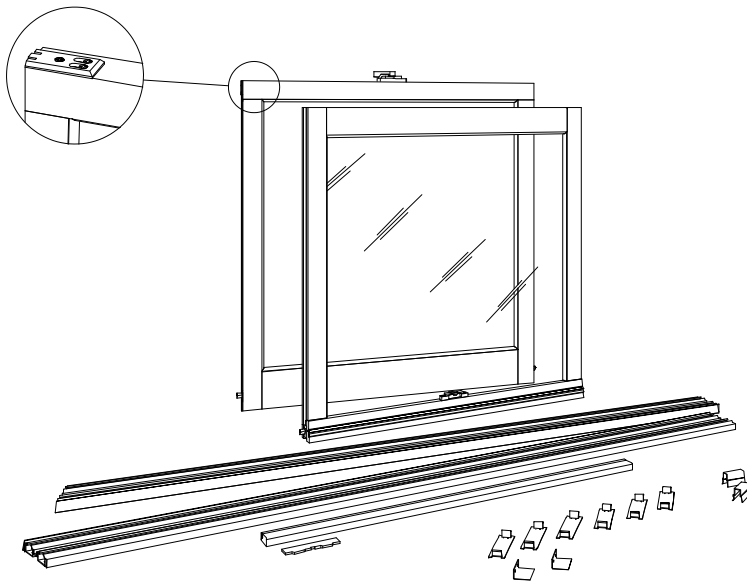
**Ultimate Double Hung Tilt Pac Parts Lists**

Ultimate Double Hung Tilt Pac



- A. Top Sash
- B. Bottom Sash
- C. Cam Pivots
- D. Left Vinyl Jamb Liner
- E. Right Vinyl Jamb Liner
- F. Head Jamb Part Stop
- G. Two Plastic Sash Stops
- H. Metal Brackets  
(Quantity varies)
- I. Two foam gaskets
- J. Extruded Aluminum Sash Exterior

Ultimate Double Hung Magnum Tilt Pac



- A. Top Sash
- B. Bottom Sash
- C. Cam Pivots
- D. Left Vinyl Jamb Liner
- E. Right Vinyl Jamb Liner
- F. Head Jamb Part Stop
- G. Two Plastic Sash Stops
- H. Metal Brackets  
(Quantity varies)
- I. Two foam gaskets
- J. Two Top Sash Stays
- K. Two Sash Retainer Plates  
(NOTE: Only on Magnum Tilt Pacs)
- L. Extruded Aluminum Sash Exterior