Ultimate Wood Tilt Turn/Hopper

Unit Features

Authentic Divided Lite (ADL) and Simulated Divided Lite (SDL) Options

Optional Interior Square Simulated Divided Lite

Minimum and Maximum Measurements / Certified Sizes and Ratings

Unit Operation

Measurement Conversions

Section Details: Operating

Section Details: Direct Glaze

Section Details: Mullions for Operating Units
Unit Features

Ultimate Wood Tilt Turn: WMTT
Ultimate Wood Tilt Turn Hopper: ULWTT HOP

NOTE: Ultimate Wood Tilt Turn Hopper not available with CE mark.

Frame:
- Frame thickness: 3 1/16" (78)
- Sill thickness: 1 11/16" (43)

Sash:
- Operating Rail thickness: 2 1/4" (57)
- Operating Stile width: 3 5/32" (80)
- Operating Top and bottom rail width: 3 5/32" (80)

Hardware:
- Tilt Turn: Multi-point locking hardware with Bronze pistol grip handle
  - Optional Hardware Colors: White, Satin Chrome, Solid Brass, Bronze keyed or White keyed handle
  - Optional features: Turn restrictor, security key or additional scissor stay
  - Tilt turn keyed stationary: Key operated lock allows authorized swing only
- Hopper: Bronze pistol grip handle
  - Optional Hardware Colors: White, Satin Chrome, or Solid Brass.
- Tilt Stay - Limiter on Hopper

Weather Strip:
- Weather Strip: Resilient leaf type gasket. Color: Black

Standard Insect Screen:
- Standard screen is roll formed aluminum
- Colors available: Pebble Gray, Bahama Brown, Evergreen, Bronze, Stone White, Ebony, Wineberry, Coconut Cream, Hampton Sage, Cashmere, Sierra White, Cadet Gray, Cascade Blue, Bright Silver (pearlescent), Copper (pearlescent), Clay, Gunmetal, Liberty Bronze (pearlescent), or Suede.
- Screen mesh: Charcoal fiberglass
  - Optional screen mesh: Charcoal High Transparency Fiberglass Mesh, Charcoal Aluminum Wire, Black Aluminum Wire, Bright Aluminum Wire, Bright Aluminum Wire, or Bright Bronze Aluminum Wire
- Optional wood screen

Glass and Glazing:
- Glazing Seal: Silicone glazed
- Glazing Type: Clear glass, optional glass types: Low E2 Argon, Low E3 Argon, Low E2/ERS Argon or air, Low E3/ERS Argon or air, Laminated, Tempered, Obscure, Bronze tint, Gray tint, and Reflective Bronze
- Optional Glazing Available: Low E1 Argon, Low E3 Argon, 1" Tripane Low E1 outer piece and Low E1 Argon inner piece, 1" Tripane Low E2 outer piece and Low E2 Krypton-Argon inner piece, 1" Tripane Low E3 outer piece and Low E1 Krypton-Argon, clear, tints, tempered, obscure, decorative glass options and others
- Insulating glass will be altitude adjusted with capillary tubes for higher elevations
- ADL glazing options not available with Argon

CE Optional Glazing:
- Glazing method: Insulating
- Glazing seal: Silicone glazed
- Standard glass is 7/8" (22) insulating Low E2 Argon or air
- Optional dual glazing available: Low E1 Argon or air, Low E3 Argon or air, Low E2/ERS Argon or air, Low E3/ERS Argon or air, clear, laminated clear and tints, tempered, sandblasted
- Optional 1" Tripane glass types: Low E1/E1 Argon or Krypton-Argon, Low E2/E2 Argon or Krypton-Argon, Low E3/E1 Argon or Krypton-Argon
- Glass panes available in 3, 4, and 6 mm thicknesses
- Laminated panes available in 7.0 and 7.8 mm thicknesses
- Glazing will be altitude adjusted for higher elevations, Argon, Argon-Krypton, and Krypton gas not included
Authentic Divided Lite (ADL) and Simulated Divided Lite (SDL) Options

NOTE: Single Glaze, ADL, and Energy Panel not available with CE mark.
Optional Interior Square Simulated Divided Lite

- 5/8" SDL
  - W/Spacer

- 7/8" SDL
  - W/Spacer Bar

- 1 1/8" SDL
  - W/Spacer Bar
# Minimum and Maximum Measurements / Certified Sizes and Ratings

<table>
<thead>
<tr>
<th>Ultimate Wood Tilt-Turn/Hopper</th>
<th>Min Frame Size Unit</th>
<th>Max Frame Size Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Width in mm</td>
<td>Height in mm</td>
</tr>
<tr>
<td>Ultimate Wood Tilt Turn Hopper</td>
<td>23 (584)</td>
<td>19 1/2 (495)</td>
</tr>
</tbody>
</table>

## Minimum and Maximum Guidelines

<table>
<thead>
<tr>
<th>Product</th>
<th>Air Tested to psf</th>
<th>Water Tested to psf</th>
<th>Structural Tested to psf</th>
<th>Certification Rating</th>
<th>Design Pressure (DP)</th>
<th>Max Overall Width in mm</th>
<th>Max Overall Height in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultimate Wood Tilt Turn Hopper</td>
<td>1.57</td>
<td>6</td>
<td>60</td>
<td>CW-PG40-AP</td>
<td>40</td>
<td>49 3/4 (1264)</td>
<td>65</td>
</tr>
<tr>
<td>Ultimate Wood Tilt Turn</td>
<td>1.57</td>
<td>6.06</td>
<td>60.19</td>
<td>CW-PG40-DAW</td>
<td>40</td>
<td>73 3/4 (1873)</td>
<td>49</td>
</tr>
</tbody>
</table>

## Design Pressure

- **Max Overall Width**
- **Max Overall Height**

**NOTE:** For CE ratings, please refer to CE Performance Section.
Unit Operation

### Hardware Size Chart

<table>
<thead>
<tr>
<th>Frame Size Height</th>
<th>Handle Height from Bottom of Sash</th>
</tr>
</thead>
<tbody>
<tr>
<td>24&quot; - 27 7/8&quot;</td>
<td>7 7/16&quot;  (189)</td>
</tr>
<tr>
<td>27 15/16&quot; - 35 3/4&quot;</td>
<td>11 1/16&quot; (281)</td>
</tr>
<tr>
<td>35 13/16&quot; - 43 5/8&quot;</td>
<td>17&quot;  (432)</td>
</tr>
<tr>
<td>43 11/16&quot; - 51 1/2&quot;</td>
<td>20 15/16&quot; (532)</td>
</tr>
<tr>
<td>51 9/16&quot; - 75 1/8&quot;</td>
<td>22 7/8&quot;  (581)</td>
</tr>
<tr>
<td>75 3/16&quot; - 96&quot;</td>
<td>40 1/16&quot;  (1018)</td>
</tr>
</tbody>
</table>

**Tilt-Turn Handle Location**

<table>
<thead>
<tr>
<th>Frame Size Height</th>
<th>Handle Height from Bottom of Sash</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 13/32&quot; Jamb Unit</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** All operations are viewed from exterior.
## Measurement Conversions

Scale: 1 1/2" = 1' 0"

### Unit Measurements - 2 13/32" Jambs

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Width</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rough Opening</td>
<td></td>
<td>in</td>
<td>mm</td>
</tr>
<tr>
<td>OM of Frame</td>
<td>Rough Opening</td>
<td>+ 1</td>
<td>(25)</td>
</tr>
<tr>
<td>Masonry Opening w/BMC</td>
<td>Rough Opening</td>
<td>-2 1/4</td>
<td>(57)</td>
</tr>
<tr>
<td>Sash</td>
<td></td>
<td>in</td>
<td>mm</td>
</tr>
<tr>
<td>OM of Frame</td>
<td>OM of Sash</td>
<td>-2 13/16</td>
<td>(71)</td>
</tr>
<tr>
<td>Daylight Opening</td>
<td>OM of Sash</td>
<td>+ 6 5/16</td>
<td>(160)</td>
</tr>
<tr>
<td>Glass</td>
<td></td>
<td>in</td>
<td>mm</td>
</tr>
<tr>
<td>Daylight Opening</td>
<td>Glass</td>
<td>+ 1 1/8</td>
<td>(29)</td>
</tr>
</tbody>
</table>

### Unit Measurements - 4 9/16" Jambs

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Width</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rough Opening</td>
<td></td>
<td>in</td>
<td>mm</td>
</tr>
<tr>
<td>OM of Frame</td>
<td>Rough Opening</td>
<td>+ 1</td>
<td>(25)</td>
</tr>
<tr>
<td>Masonry Opening w/BMC</td>
<td>Rough Opening</td>
<td>-2 1/4</td>
<td>(57)</td>
</tr>
<tr>
<td>Sash</td>
<td></td>
<td>in</td>
<td>mm</td>
</tr>
<tr>
<td>OM of Frame</td>
<td>OM of Sash</td>
<td>-3 27/32</td>
<td>(98)</td>
</tr>
<tr>
<td>Daylight Opening</td>
<td>OM of Sash</td>
<td>+ 6 5/16</td>
<td>(160)</td>
</tr>
<tr>
<td>Glass</td>
<td></td>
<td>in</td>
<td>mm</td>
</tr>
<tr>
<td>Daylight Opening</td>
<td>Glass</td>
<td>+ 1 1/8</td>
<td>(29)</td>
</tr>
</tbody>
</table>

### Net Clear Opening:

- Rough Opening Width: 8 1/8" (206)
- Rough Opening Height: 7 3/4" (197)
Section Details: Operating

Scale: 3" = 1' 0"

Operating
2 13/32" Jambs

Head Jamb and Sill

Operating
4 9/16" Jambs

Head Jamb and Sill

Daylight Opening
Frame Size

Jambs

Jambs

Daylight Opening
Frame Size
Section Details: Direct Glaze

Scale: 3" = 1' 0"

Head Jamb and Sill

4 9/16" Jambs

Frame Size

Daylight Opening

1 3/8" (35)

5 1/16" (129)

1 3/8" (35)

5 1/16" (129)

4 9/16" (116)

1/2" (13)

1 7/32" (31)

5 1/16" (128)

Frame Size

Head Jamb and Sill

Jambs

Daylight Opening

5 13/16" (148)

1 1/4" (32)

10 1/8" (257)

1 1/16" (27)

1 1/16" (27)

1 21/32" (42)

1 1/16" (27)

Horizontal Mullion

Direct Glaze Mullion

Vertical Mullion

5 1/16" (129)

1 3/8" (19)

1/2" (13)

1 7/32" (31)
Section Details: Mullions for Operating Units

Scale: 3" - 1' 0"

Jamb Extension Policy for Multiples Assemblies
To provide the necessary structural integrity for multiple width and height assemblies, 4 9/16" (116) exterior jamb extensions must be applied around the perimeter and between the shortest intermediate mulls.

Total assembly Rough Opening or Masonry Opening must be specified to assure individual unit sizes will be appropriately calculated.

CE Mulling Options will match UCA family mulling rules:
- Mulled assemblies up to 64" (1626) x 71 1/8" (1807) as a 1H x multi-width
- Mulled assemblies with 1" (25) LVL or 3/8" (10) aluminum mull reinforcement up to 122" (3099) x 104 1/4" (2638) as a multi-wide or multi-high assembly