Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

Metric (SI) conversion figures are included throughout these details for reference. Numbers in parentheses ( ) are millimeters unless otherwise noted.

The following metric (SI) units are found in these details:

- m – meter
- cm – centimeter
- mm – millimeter
- s – second
- Pa – pascal
- MPa – megapascal

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Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

© Kawneer Company, Inc., 2011
Features

- Architectural Grade Window
- Non-Thermally Broken Frames
- Screw and Spline Frame Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead with Bulb Gasket
- Architectural Anodized Finishes and Applied Coatings
- Two Year Manufacturer's Warranty

Fixed Window

For specific product applications, Consult your Kawneer representative.
<table>
<thead>
<tr>
<th>CLASS and GRADE</th>
<th>Architectural Grade AW-PG100-FW</th>
</tr>
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<tbody>
<tr>
<td>TESTING STANDARD</td>
<td>AAMA / WDMA / CSA 101 / I.S. 2 / A440 (NAFS)</td>
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<tr>
<td>FRAME DEPTH</td>
<td>2-1/4&quot; Overall Frame Depth</td>
</tr>
<tr>
<td>TYPICAL WALL THICKNESS</td>
<td>.090 and .125 Nominal</td>
</tr>
<tr>
<td>TYPICAL MAXIMUM SIZE</td>
<td>60&quot; x 99&quot;</td>
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<td>TYPICAL MINIMUM SIZE</td>
<td>12&quot; x 12&quot;</td>
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<tr>
<td>TYPICAL CONFIGURATIONS</td>
<td><img src="image" alt="Typical Configurations" /></td>
</tr>
<tr>
<td>STANDARD INFILL OPTIONS</td>
<td>1/4&quot; and 1&quot;</td>
</tr>
<tr>
<td>STANDARD HARDWARE</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>OPTIONAL HARDWARE</td>
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</tr>
<tr>
<td>OTHER OPTIONS</td>
<td>Unequal Leg Frames</td>
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<tr>
<td></td>
<td>Exterior and/or Interior Applied Muntins</td>
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<td>Perimeters and Sills</td>
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<tr>
<td></td>
<td>Exterior Pannings and Interior Trims</td>
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</tr>
<tr>
<td></td>
<td>Access Panels and Blinds</td>
</tr>
<tr>
<td></td>
<td>Silicone Field Glazed upon Request</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>PERFORMANCE</th>
<th>Air Infiltration Cfm/ft²</th>
<th>Water Resistance PSF</th>
<th>Design Load PSF</th>
<th>Thermal Transmittance &quot;U&quot; Value</th>
<th>Condensation Resistance CRF</th>
<th>Sound Transmittance STC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.10 @ 6.24 psf</td>
<td>15</td>
<td>100</td>
<td>n/a</td>
<td>n/a</td>
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</tr>
</tbody>
</table>
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor. Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

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SCALE: 3" = 1'-0"

TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations

ADME030EN
JULY, 2016
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Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
Features

- Architectural Grade Window
- Non-Thermally Broken Frames
- Mitered, Clipped and Staked Vent Corner Joinery
- Screw and Spline Frame Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead with Bulb Gasket
- Architectural Anodized Finishes and Applied Coatings
- Two Year Manufacturer's Warranty
- Compatible with Storefront and Curtain Wall Systems

Project-In Window

For specific product applications, Consult your Kawneer representative.
### 7225 Non-Thermal Windows

**PROJECT-IN WINDOW**

**EC 97911-104**

---

<table>
<thead>
<tr>
<th>CLASS and GRADE</th>
<th>Architectural Grade AP-HC90 / AP-AW90 / AP-PG90-AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>TESTING STANDARD</td>
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</tr>
<tr>
<td>FRAME DEPTH</td>
<td>2-1/4“ Overall Frame Depth</td>
</tr>
<tr>
<td>TYPICAL WALL THICKNESS</td>
<td>.090 and .125 Nominal</td>
</tr>
<tr>
<td>TYPICAL MAXIMUM SIZE</td>
<td>60” x 48”</td>
</tr>
<tr>
<td>TYPICAL MINIMUM SIZE</td>
<td>17” x 17”</td>
</tr>
</tbody>
</table>

**TYPICAL CONFIGURATIONS**

- [Diagram showing typical configurations]

**STANDARD INFILL OPTIONS**
- 1/4” and 1”

**STANDARD HARDWARE**
- Stainless Steel 4-Bar Hinges
- Cast White Bronze Cam Locks

**OPTIONAL HARDWARE**
- Access Control Locks
- Limit Stop
- Pole and Pole Ring

**OTHER OPTIONS**
- Unequal Leg Frames
- Exterior and/or Interior Applied Muntins
- Insect Screens
- Perimeters and Sills
- Exterior Pannings and Interior Trims
- Structural Mullions
- Vertically or Horizontally Stacked
- Access Panels and Blinds
- Silicone Field Glazed upon Request

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<th>PERFORMANCE</th>
<th>Air Infiltration Cfm/ft²</th>
<th>Water Resistance PSF</th>
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SCALE: 3" = 1'-0"

TYPICAL ELEVATION
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Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

A standard hinge for ventilators providing approximately 45° to 60° openings depending on size. An optional limit stop is available to restrict hinge travel and limit vent opening.

Cast white bronze cam handles are standard for the manual operation and locking of ventilators.

Cast white bronze cam handles with pole ring provide manual operation of ventilators located above reach. These handles are operated with a sash pole.

Cast white bronze pole ring is used in conjunction with locking hardware for sash pole operation of ventilators.

A 3/4" diameter aluminum sash pole with a cast white bronze pull down hook and black rubber tip. Available in 6 ft. and 12 ft. lengths with optional cast white bronze pole hanger.

In lieu of the standard cam handles cast white bronze access control locks are offered for managed control of vent operations. Lock is operated with a manganese bronze removable handle.
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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**Features**

- Architectural Grade Window
- Non-Thermally Broken Frames
- Mitered, clipped and staked vent corner joinery
- Screw and spline frame corner joinery
- Factory silicone glazed
- Interior applied glazing bead with bulb gasket
- Architectural anodized finishes and applied coatings
- Two year manufacturer’s warranty
- Compatible with storefront and curtain wall systems

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For specific product applications, consult your Kawneer representative.
### 7225 Non-Thermal Windows

**PROJECT-OUT WINDOW**

**EC 97911-104**

#### CLASS and GRADE
Architectural Grade AP-HC90 / AP-AW90 / AW-PG90-AP

#### TESTING STANDARD
AAMA / WDMA / CSA 101 / I.S. 2 / A440 (NAFS)

#### FRAME DEPTH
2-1/4" Overall Frame Depth

#### TYPICAL WALL THICKNESS
.090 and .125 Nominal

#### TYPICAL MAXIMUM SIZE
60" x 89"

#### TYPICAL MINIMUM SIZE
17" x 17"

#### TYPICAL CONFIGURATIONS

#### STANDARD INFILL OPTIONS
1/4" and 1"

#### STANDARD HARDWARE
Stainless Steel 4-Bar Hinges  
Cast White Bronze Cam Locks  
88SS Support Arm (Units over 50" in height)

#### OPTIONAL HARDWARE
Access Control Locks  
Hook Bolt Lock Handle  
Pivot Shoe Roto-Operator  
Scissors Arm Roto-Operator  
Limit Stop  
Pole and Pole Ring

#### OTHER OPTIONS
Unequal Leg Frames  
Exterior and/or Interior Applied Muntins  
Insect Screens  
Perimeters and Sills  
Exterior Pannings and Interior Trims  
Structural Mullions  
Vertically or Horizontally Stacked  
Access Panels and Blinds  
Silicone Field Glazed upon Request

#### PERFORMANCE

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<th>Air Infiltration Cfm/ft²</th>
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<tr>
<td><strong>Performance</strong></td>
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SCALE: 3" = 1'-0"

TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations
STAINLESS STEEL 4 BAR HINGES

A standard hinge for ventilators providing approximately 45° to 60° openings depending on size. An optional limit stop is available to restrict hinge travel and limit vent opening.

STANDARD CAM HANDLE

Cast white bronze cam handles are standard for the manual operation and locking of ventilators.

CAM HANDLE WITH POLE RING

Cast white bronze cam handles with pole ring provide manual operation of ventilators located above reach. These handles are operated with a sash pole.

POLE RING

Cast white bronze pole ring is used in conjunction with locking hardware for sash pole operation of ventilators.

SASH POLE

A 3/4" diameter aluminum sash pole with a cast white bronze pull down hook and black rubber tip. Available in 6 ft. and 12 ft. lengths with optional cast white bronze pole hanger.

HANGER FOR SASH POLE

ACCESS CONTROL LOCK

In lieu of the standard cam handles cast white bronze access control locks are offered for managed control of vent operations. Lock is operated with a manganese bronze removable handle.
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PIVOT-SHOE ROTO-OPERATOR

Optional pivot shoe roto operator is located on the center line of the bottom horizontal frame. Standard finish shall be brushed copper nickel to match US-25-D.

HOOK BOLT LOCK

For use with pivot-shoe roto operator in lieu of cam handles. Standard finish shall be US-25-D clear white bronze.

88SS SUPPORT ARM

Support arms are used when window height exceeds 50-1/2". When fully extended, the hardware automatically retains the ventilator in an open position.

SCISSORS ARM ROTO OPERATOR

Optional scissor arm roto operator is located on the center line of the bottom horizontal frame. Standard finish shall be brushed copper nickel to match US-25-D.
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Features

- Architectural Grade Window
- Non-Thermally Broken Frames
- Mitered, Clipped and Staked Vent Corner Joinery
- Screw and Spline Frame Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead with Bulb Gasket
- Architectural Anodized Finishes and Applied Coatings
- Two Year Manufacturer’s Warranty
- Compatible with Storefront and Curtain Wall Systems

For specific product applications, Consult your Kawneer representative.
### 7225 Non-Thermal Windows

**INSWING CASEMENT WINDOW**

EC 97911-104

---

<table>
<thead>
<tr>
<th>CLASS and GRADE</th>
<th>Architectural Grade C-HC90 / C-AW90 / AW-PG90-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>TESTING STANDARD</td>
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<tr>
<td>FRAME DEPTH</td>
<td>2-1/4&quot; Overall Frame Depth</td>
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<tr>
<td>TYPICAL WALL THICKNESS</td>
<td>.090 and .125 Nominal</td>
</tr>
<tr>
<td>TYPICAL MAXIMUM SIZE</td>
<td>36&quot; x 60&quot;</td>
</tr>
<tr>
<td>TYPICAL MINIMUM SIZE</td>
<td>17&quot; x 17&quot;</td>
</tr>
</tbody>
</table>

#### TYPICAL CONFIGURATIONS

- ![Typical Configurations](image)

#### STANDARD INFILL OPTIONS

- 1/4" and 1"

#### STANDARD HARDWARE

- Stainless Steel 4-Bar Hinges
- Cast White Bronze Cam Locks

#### OPTIONAL HARDWARE

- Access Control Locks
- Limit Stop
- Pole and Pole Ring
- Butt Hinges
- Keyed Limit Arm
- Friction Adjustor

#### OTHER OPTIONS

- Unequal Leg Frames
- Exterior and/or Interior Applied Muntins
- Insect Screens
- Perimeters and Sills
- Exterior Pannings and Interior Trims
- Structural Mullions
- Vertically or Horizontally Stacked
- Access Panels and Blinds
- Silicone Field Glazed upon Request

### PERFORMANCE

<table>
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<tr>
<th>PERFORMANCE</th>
<th>Air Infiltration Cfm/ft²</th>
<th>Water Resistance PSF</th>
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<td>.10 @ 6.24 psf</td>
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7225 Non-Thermal Windows
INSWING CASEMENT WINDOW

SCALE : 3" = 1'-0"

TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations
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STAINLESS STEEL 4 BAR HINGES
A standard hinge for ventilators providing approximately 45° to 60° openings depending on size. An optional limit stop is available to restrict hinge travel and limit vent opening.

STANDARD CAM HANDLE
Cast white bronze cam handles are standard for the manual operation and locking of ventilators.

CAM HANDLE WITH POLE RING
Cast white bronze cam handles with pole ring provide manual operation of ventilators located above reach. These handles are operated with a sash pole.

POLE RING
Cast white bronze pole ring is used in conjunction with locking hardware for sash pole operation of ventilators.

SASH POLE
A 3/4” diameter aluminum sash pole with a cast white bronze pull down hook and black rubber tip. Available in 6 ft. and 12 ft. lengths with optional cast white bronze pole hanger.

HANGER FOR SASH POLE

ACCESS CONTROL LOCK
In lieu of the standard cam handles cast white bronze access control locks are offered for managed control of vent operations. Lock is operated with a manganese bronze removable handle.
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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### BUTT HINGES
An optional hinge for ventilators providing a full 90° opening. Butt hinges shall be finished to match the window.

### FRICTION ADJUSTOR
Friction adjustors shall be used with butt hinges for additional friction for control of the ventilator.

### KEYED LIMIT ARM
Key released limit arms may be used to restrict ventilator opening when used with butt hinges.
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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Features

- Architectural Grade Window
- Non-Thermally Broken Frames
- Mitered, Clipped and Staked Vent Corner Joinery
- Screw and Spline Frame Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead with Bulb Gasket
- Architectural Anodized Finishes and Applied Coatings
- Two Year Manufacturer's Warranty
- Compatible with Storefront and Curtain Wall Systems

Outswing Casement Window

For specific product applications, Consult your Kawneer representative.
### 7225 Non-Thermal Windows

**OUTSWING CASEMENT WINDOW**

<table>
<thead>
<tr>
<th>CLASS and GRADE</th>
<th>Architectural Grade C-HC90 / C-AW90 / AW-PG90-C</th>
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<tr>
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</tr>
<tr>
<td>TYPICAL WALL THICKNESS</td>
<td>.090 and .125 Nominal</td>
</tr>
<tr>
<td>TYPICAL MAXIMUM SIZE</td>
<td>36&quot; x 60&quot;</td>
</tr>
<tr>
<td>TYPICAL MINIMUM SIZE</td>
<td>17&quot; x 17&quot;</td>
</tr>
</tbody>
</table>

#### TYPICAL CONFIGURATIONS
![Typical Configurations Diagram]

#### STANDARD INFILL OPTIONS
- 1/4" and 1"

#### STANDARD HARDWARE
- Stainless Steel 4-Bar Hinges
- Cast White Bronze Cam Locks

#### OPTIONAL HARDWARE
- Butt Hinges
- Access Control Locks
- Hook Bolt Lock or Multi-Point Lock
- Limit Stop
- Pole and Pole Ring
- Friction Adjustor
- Keyed Limit Arm
- Roto Operator

#### OTHER OPTIONS
- Unequal Leg Frames
- Exterior and/or Interior Applied Muntins
- Insect Screens
- Perimeters and Sills
- Exterior Pannings and Interior Trims
- Structural Mullions
- Vertically or Horizontally Stacked
- Access Panel and Blinds
- Silicone Field Glazed upon Request

#### PERFORMANCE

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<tr>
<th></th>
<th>Air Infiltration Cfm/ft²</th>
<th>Water Resistance PSF</th>
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TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations
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### 7225 Non-Thermal Windows

**OUTSWING CASEMENT WINDOW**

#### STAINLESS STEEL 4 BAR HINGES

A standard hinge for ventilators providing approximately 45° to 60° openings depending on size. An optional limit stop is available to restrict hinge travel and limit vent opening.

#### BUTT HINGES

An optional hinge for ventilators providing a full 90° opening. Butt Hinges shall be finished to match the window.

#### FRICTION ADJUSTER

Friction adjustors shall be used with butt hinges for additional friction for control of the ventilator.

#### ROTO OPERATOR

Roto operators are used with butt hinges only and located at the bottom horizontal frame. Standard finish shall be brushed copper nickel to match US-25-D.

#### STANDARD CAM HANDLE

Cast white bronze cam handles are standard for the manual operation and locking of ventilators.

#### CAM HANDLE WITH POLE RING

Cast white bronze cam handles with pole ring provide manual operation of ventilators located above reach. These handles are operated with a sash pole.

#### KEYED LIMIT ARM

Key released limit arms may be used to restrict ventilator opening when used with butt hinges.
POLE RING

Cast white bronze pole ring is used in conjunction with locking hardware for sash pole operation of ventilators.

SASH POLE

A 3/4" diameter aluminum sash pole with a cast white bronze pull down hook and black rubber tip. Available in 6 ft. and 12 ft. lengths with optional cast white bronze pole hanger.

HANGER FOR SASH POLE

ACCESS CONTROL LOCK

In lieu of the standard cam handles cast white bronze access control locks are offered for managed control of vent operations. Lock is operated with a manganese bronze removable handle.

HOOK BOLT LOCK

Optional hook bolt lock in lieu of cam handle. Standard finish shall be US-25-D clear white bronze.

MULTI-POINT LOCK

Optional single locking handle for concealed multi-point locks located on the vertical frame. Standard finish shall be US-25-D clear white bronze.

ESCAPE WINDOW SIGN

Vinyl escape window sign. Colors are white letters on red background.

RESCUE WINDOW SIGN

Vinyl rescue window sign with lettering on both sides. Colors are black letters on a yellow background.
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WIND LOAD CHARTS:
these charts are based on a maximum deflection of L/175 and/or a maximum stress of 15,152 PSI (104 MPa).

MULLION CENTERS IN METERS

MULLION HEIGHT IN FEET

MULLION CENTERS IN FEET

MULLION HEIGHT IN METERS

UNITS WITH HORIZONTALS

A = 20 PSF (958)
B = 35 PSF (1436)
C = 50 PSF (2394)
D = 70 PSF (3352)
E = 90 PSF (4309)

MULLION CENTERS IN METERS

MULLION HEIGHT IN FEET

MULLION CENTERS IN FEET

MULLION HEIGHT IN METERS

UNITS WITH HORIZONTALS

A = 20 PSF (958)
B = 35 PSF (1436)
C = 50 PSF (2394)
D = 70 PSF (3352)
E = 90 PSF (4309)
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

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WIND LOAD CHARTS:
THESE CHARTS ARE BASED ON A MAXIMUM DEFLECTION OF L/175 AND/OR A MAXIMUM STRESS OF 15,152 PSI (104 MPa).

A = 20 PSF (958)
B = 25 PSF (1197)
C = 30 PSF (1436)
D = 35 PSF (1676)
E = 40 PSF (1915)

A = 30 PSF (1436)
B = 45 PSF (2155)
C = 60 PSF (2873)
D = 75 PSF (3591)
E = 90 PSF (4309)
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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WIND LOAD CHARTS:
THESE CHARTS ARE BASED ON A MAXIMUM DEFLECTION OF L/175 AND/OR A MAXIMUM STRESS OF 15,152 PSI (104 MPa).

MULLION CENTERS IN METERS

MULLION CENTERS IN FEET

MULLION HEIGHT IN FEET

MULLION HEIGHT IN METERS

UNITS WITH HORIZONTALS

NOTE:
MULLION PROJECTION TO THE INTERIOR AVAILABLE

A = 20 PSF (958)
B = 40 PSF (1915)
C = 60 PSF (2873)
D = 80 PSF (3830)
E = 100 PSF (4788)
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SCALE: 3" = 1'-0"

PVC PERIMETER
(Continuous)
Head and Jamb Similar

STRAP ANCHOR
with SEALANT BACK-UP

STRAP ANCHOR
with SUB SILL

F-ANCHOR STRAP
Equal Leg Frame Only
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