Features

• Slim 2" (50.8) sight lines
• Tubular construction with shear block connections
• Split mullion unitized system for horizontal strip window
• Thermally improved framing
• Range of mullion sizes to suit design parameters
• Standard infill options 1/4" (6.4) and 1" (25.4), other infills available
• Integrated entrance framing
• Two color option
• Permanodic™ anodized finishes in seven choices
• Painted finishes in standard and custom choices

Optional Features

• Deep covers available
• Deep and heavy-weight mullions

For specific product applications,
Consult your Kawneer representative.
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Architects - Most extrusion and window types illustrated in this catalog are standard products for Kawneer. These concepts have been expanded and modified to afford you design freedom. Some miscellaneous details are non-standard and are intended to demonstrate how the system can be modified to expand design flexibility. Please contact your Kawneer representative for further assistance.

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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
1602 Wall System

PICTORIAL VIEW

MARCH, 2017
EC 97911-130

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Tubular mullions are horizontals with shear block construction. Rain screen pressure equalized system.
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SCALE 3" = 1'-0"

ELEVATION IS NUMBER KEYED TO DETAILS

Overall frame height

Door opening height

Door opening width

1602 Wall System
EC 97911-130
ELEVATION AND DETAILS (WITHOUT BACK PAN)

MARCH, 2017

119

HEAVY WALL
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**1602 Wall System**

**ELEVATION AND DETAILS (WITH BACK PAN)**

**SCALE 3” = 1’-0”**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>8A</th>
</tr>
</thead>
</table>

ELEVATION IS NUMBER KEYED TO DETAILS

HEAVY WALL

6-1/16” (154) 7-5/16” (185.7)

2” (50.8)
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SCALE 3” = 1’-0”

ELEVATION IS NUMBER KEYED TO DETAILS

DOOR JAMB

BUTT HUNG OR OFFSET PIVOT

CENTER HUNG

TRANSOM BAR

CENTER HUNG CONCEALED OVERHEAD OR FLOOR CLOSER

TRANSOM BAR

BUTT HUNG OR OFFSET PIVOT WITH SURFACE CLOSER OR FLOOR CLOSER
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SCALE 3" = 1'-0"

90° OUTSIDE CORNER

90° INSIDE CORNER

135° OUTSIDE CORNER

135° INSIDE CORNER
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NOTE: 1602 WINDOW CAN ALSO BE FABRICATED AS A STICK SYSTEM.
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SCALE 3" = 1'-0"

WALL MULLIONS
(VERTICAL AND HORIZONTAL)

OPTIONAL COVERS

WITHOUT BACKPAN ADAPTORS
WIND LOAD CHARTS

Mullions are designed for deflection limitations in accordance with AAMA TIR-A11 of L/175 up to 13'-6" and L/240 +1/4" above 13'-6". These curves are for mullions WITH HORIZONTALS and are based on engineering calculations for stress and deflection. Allowable wind load stress for ALUMINUM 15,152 psi (104 MPa), STEEL 30,000 psi (207 MPa). Charted curves, in all cases are for the limiting value. Wind load charts contained herein are based upon nominal wind load utilized in allowable stress design. A conversion from Load Resistance Factor Design (LRFD) is provided. To convert ultimate wind loads to nominal loads, multiply ultimate wind loads by a factor of 0.6 per ASCE/SEI 7. A 4/3 increase in allowable stress has not been used to develop these curves. For special situations not covered by these curves, contact your Kawneer representative for additional information.

DEADLOAD CHARTS

Horizontal or deadload limitations are based upon 1/8" (3.2), maximum allowable deflection at the center of an intermediate horizontal member. The accompanying charts are calculated for 1" (25.4) thick insulating glass or 1/4" (6.4) thick glass supported on two setting blocks placed at the loading points shown.
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DEADLOAD CHARTS

1/4" INFILL

A - 1/8 POINT LOADING
B - 1/4 POINT LOADING

1" INFILL

I = 0.766(31.88 \times 10^4)
S = 0.766(12.55 \times 10^3)

I = 0.890(37.04 \times 10^4)
S = 0.890(14.58 \times 10^3)
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Generic Project Specific U-factor Example Calculation
(Percent of Glass will vary on specific products depending on sitelines)
(Based on single bay of Curtain Wall/Window Wall)

Example Glass U-Factor = 0.42 Btu/hr • ft² • °F
Total Daylight Opening = 3(5' x 7') + 3(5' x 2') = 135 ft²
Total Projected Area = 15'-8" x 9'-6" = 148.83 ft²
Percent of Glass = (Total Daylight Opening + Total Projected Area)100

System U-Factor vs Percent of Glass Area

Based on 91% glass and center of glass U-Factor of 0.42
System U-Factor is equal to 0.49 Btu/hr • ft² • °F
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Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-Factor vs Percent of Glass Area

Notes for System U-Factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.
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Charts are generated per AAMA 507
**Thermal Transmittance** (BTU/hr • ft² • °F)

<table>
<thead>
<tr>
<th>Glass U-Factor</th>
<th>Overall U-Factor</th>
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<tbody>
<tr>
<td>0.48</td>
<td>0.61</td>
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<tr>
<td>0.46</td>
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**SHGC Matrix**

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**Visible Transmittance**

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<th>Glass VT</th>
<th>Overall VT</th>
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<td>0.05</td>
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</tbody>
</table>

**NOTE:** For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matrices are based on the standard NFRC specimen size of 2,000 mm wide by 2,000 mm high (78-3/4" by 78-3/4").
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