

FIXED WINDOW..... 3-5

SINGLE HUNG WINDOW 6-10

DOUBLE HUNG WINDOW 11-15

HORIZONTAL SLIDER WINDOW..... 16-20

WIND LOAD CHARTS 21-28

DEADLOAD CHARTS 29

RECEPTORS, SUB SILLS AND ANCHORING..... 30

THERMAL CHARTS 31-53

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.
© Kawneer Company, Inc., 2014

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.

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

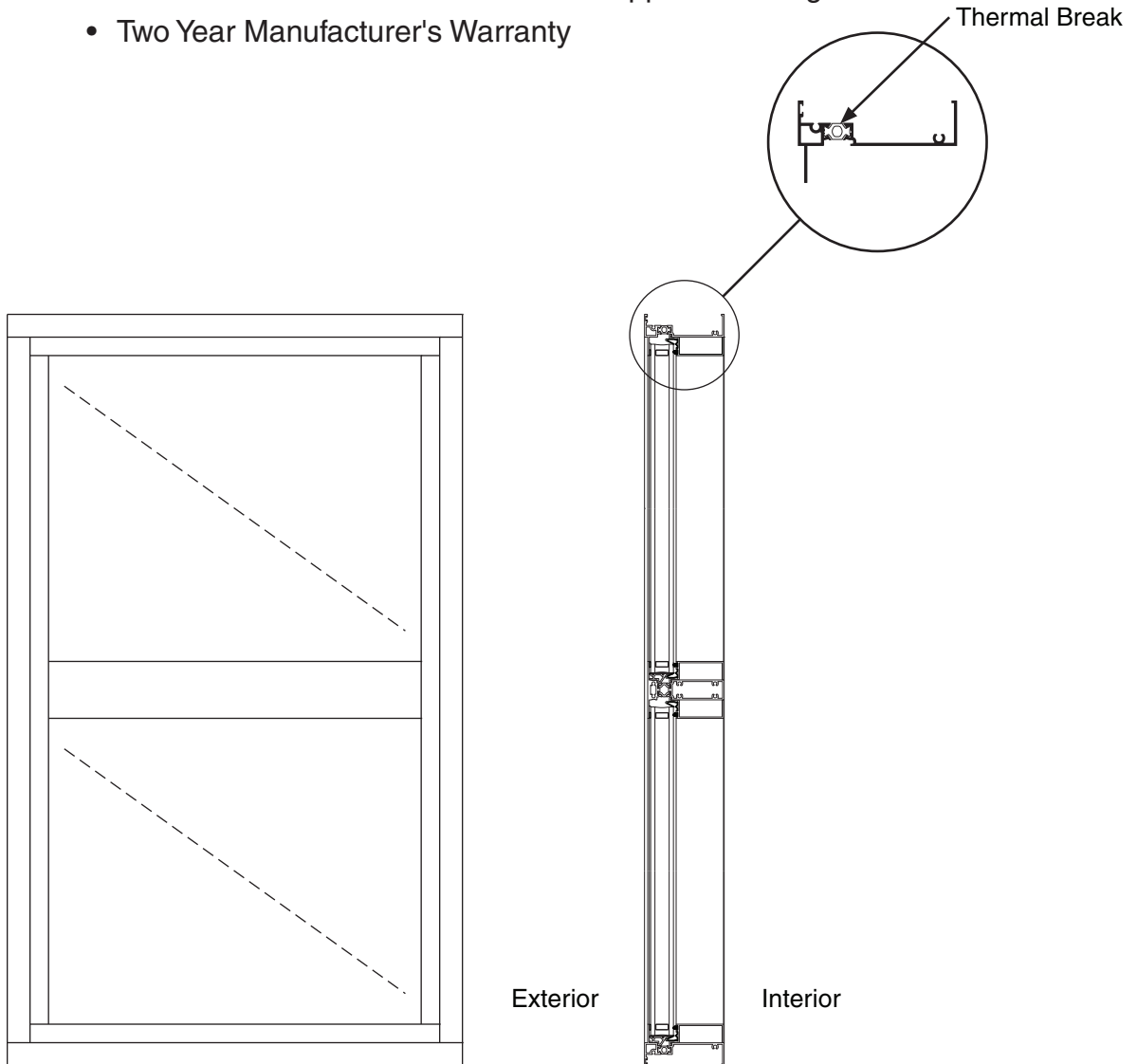
Kawneer reserves the right to change configurations without prior notice when deemed necessary for product improvement.

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.
© Kawneer Company, Inc., 2014

Standard Features

- High Performance Commercial Window
- IsoPort™ Thermal Break
- Screw and Spline Frame Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Two Year Manufacturer's Warranty



Fixed Window

For specific product applications,
Consult your Kawneer representative.

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.
© Kawneer Company, Inc., 2014

CLASS and GRADE	CLASS CW-PG50-FW / AW-PG50-FW					
OPTIONAL CLASS and GRADE	CLASS AW-PG70-FW					
TESTING STANDARD	AAMA / WDMA / CSA / 101 / I.S.2 / A440-08 (NAFS-08)					
FRAME DEPTH	3-1/2" Overall Frame Depth					
TYPICAL WALL THICKNESS	.070" Nominal					
TYPICAL MAX. VENT SIZE	60" x 99"					
TYPICAL MIN. VENT SIZE	15" x 15"					
TYPICAL CONFIGURATIONS						
STANDARD INFILL OPTIONS	1"					
STANDARD HARDWARE	Not Applicable					
OPTIONAL HARDWARE	Not Applicable					
OTHER OPTIONS	Between the Glass Muntin Grids Exterior Applied Muntin Grids Perimeters and Sills Exterior Pannings and Interior Trims True Intermediate Muntin Structural Mullions Vertically or Horizontally Stacked Strap Anchors Nailing Fin Flange					
FIXED WINDOW PRODUCT PERFORMANCE						
Air Infiltration NAFS-08	Water Resistance NAFS-08	Design Load NAFS-08	Thermal Transmittance AAMA 507 NFRC 100	Condensation Resistance* AAMA 1503	Condensation Temperature Index* CSA A440.2	Sound Transmittance** ASTM E 1425 ASTM E 1332
≤ 0.10 Cfm/ft ²	CW - 10 PSF AW - 15 PSF	50 PSF 70 PSF	"U" Factor 0.33 to 0.56	CRF frame - 67 CRF glass - 71	I frame - 60 I glass - 62	STC - 36 OITC - 28

Note: "U" Values based on computer simulations utilizing Insulating Glass, Low E Coatings and Warm Edge Spacers. See Thermal Charts for various glass types.

* CRF and Temperature index based on high performance Low E Glass and Warm Edge Spacers.

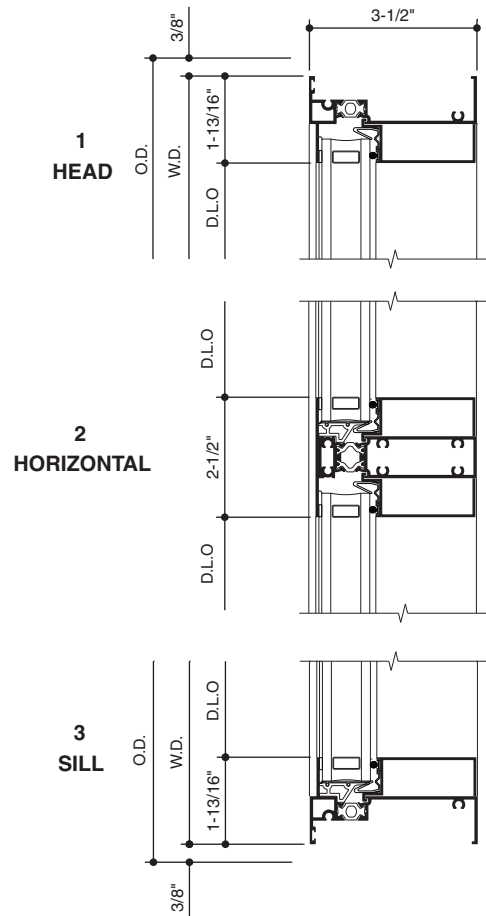
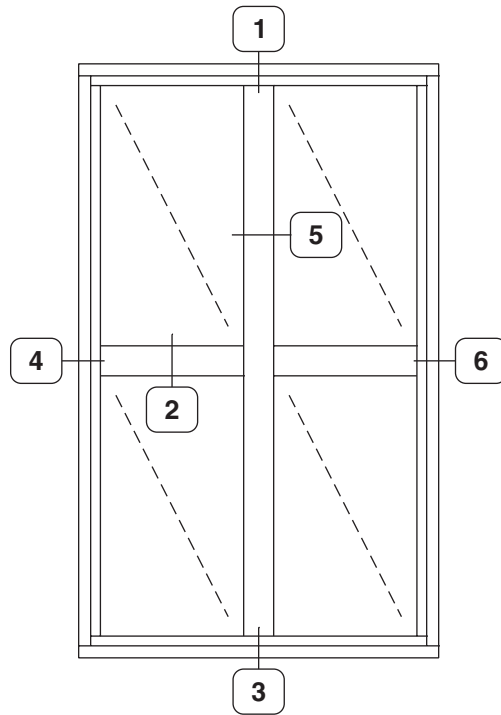
** Acoustical test based on laminated glass.

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.

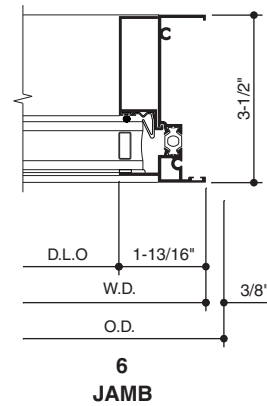
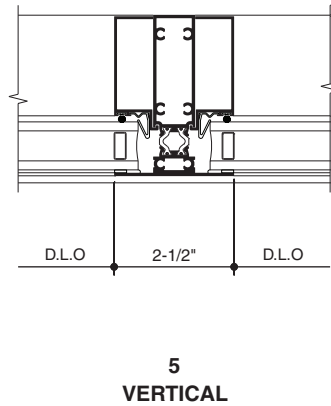
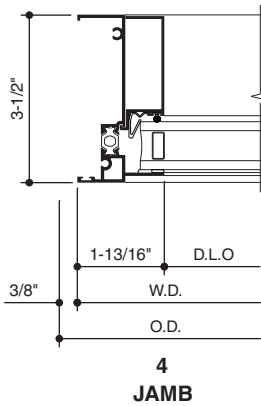
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© Kawneer Company, Inc., 2014

SCALE : 3" = 1'-0"

AA™3350 IsoPort™ FIXED WINDOW
Standard Design



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

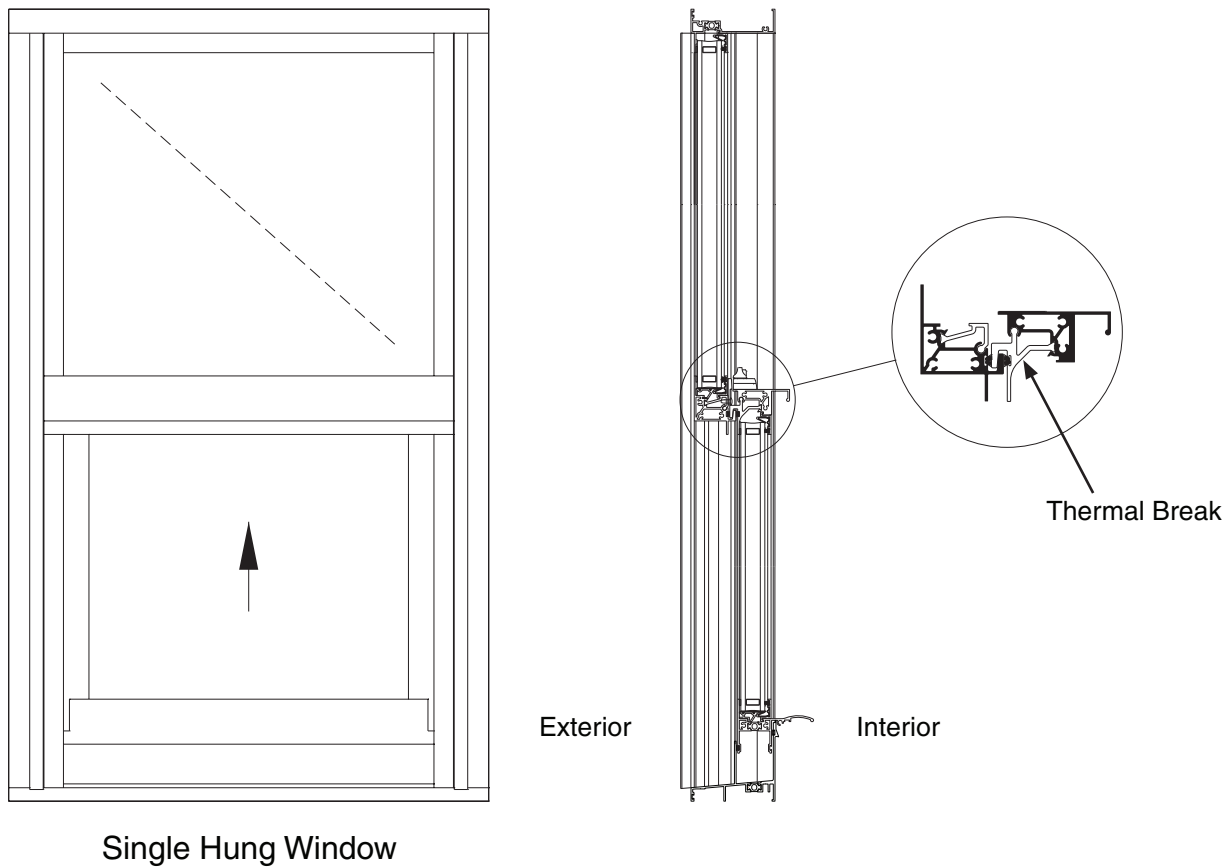


Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© Kawneer Company, Inc., 2014

Standard Features

- High Performance Commercial Window
- IsoPort™ Thermal Break
- Screw and Spline Frame and Sash Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Two Year Manufacturer's Warranty



For specific product applications,
Consult your Kawneer representative.

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.
© Kawneer Company, Inc., 2014

CLASS and GRADE	CLASS CW-PG50-H / AW-PG50-H
OPTIONAL CLASS and GRADE	CLASS AW-PG70-H (MAX. SIZE 52" X 99")
TEST STANDARD	AAMA / WDMA / CSA / 101 / I.S.2 / A440-08 (NAFS-08)
FRAME DEPTH	3-1/2" Overall Frame Depth
TYPICAL WALL THICKNESS	.070" Nominal
TYPICAL MAXIMUM SIZE	60" x 99" (AW), 56" x 91" (CW)
TYPICAL MINIMUM SIZE	20" x 32-1/2" (10 PSF Sill), 20" x 33-1/2" (15 PSF Sill)
TYPICAL CONFIGURATIONS	
STANDARD INFILL OPTIONS	1"
STANDARD HARDWARE	Heavy Duty Balances Zinc Die Cast Sweep Locks Sash Stops
OPTIONAL HARDWARE	Sill Auto Lock
OTHER OPTIONS	Between the Glass Muntin Grids Exterior Applied Muntin Grids Perimeters and Sills Exterior Pannings and Interior Trims Structural Mullions Vertically or Horizontally Stacked Strap Anchors Sill for 10 PSF or 15 PSF Water Performance Insect Screens Nailing Fin Flange

SINGLE HUNG WINDOW PRODUCT PERFORMANCE

Air Infiltration NAFS-08	Water Resistance NAFS-08	Design Load NAFS-08	Thermal Transmittance AAMA 507 NFRC 100	Condensation Resistance* AAMA 1503	Condensation Temperature Index* CSA A440.2	Sound Transmittance** ASTM E 1425 ASTM E 1332
≤ 0.30 Cfm/ft²	CW - 10 PSF AW - 15 PSF	50 PSF 70 PSF	"U" Factor 0.38 to 0.57	CRF frame - 57 CRF glass - 60	I frame - 39 I glass - 58	STC - 36 OITC - 30

Note: "U" Values based on computer simulations utilizing Insulating Glass, Low E Coatings and Warm Edge Spacers. See Thermal Charts for various glass types.

* CRF and Temperature index based on high performance Low E Glass and Warm Edge Spacers.

** Acoustical test based on laminated glass.

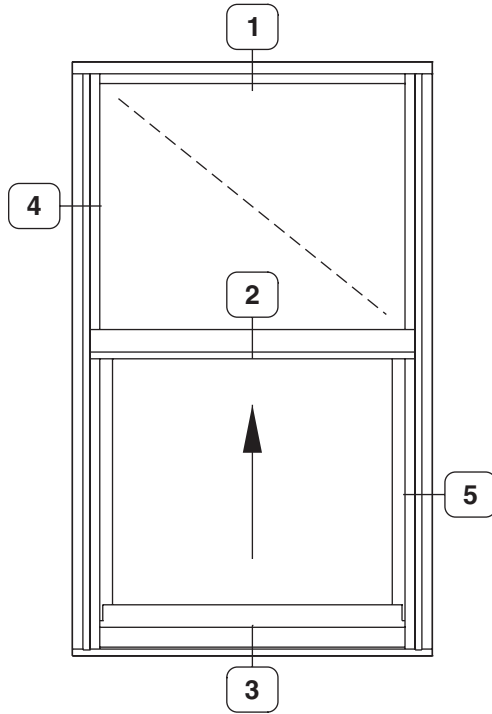
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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

© Kawneer Company, Inc., 2014

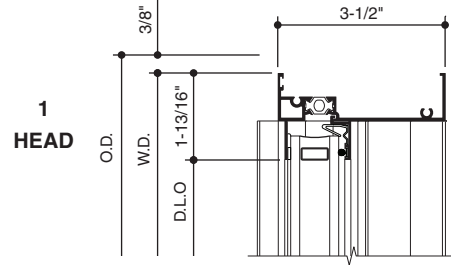
SCALE : 3" = 1'-0"

AA™3350 IsoPort™ SINGLE HUNG WINDOW
Commercial Window, Class CW-PG50-H

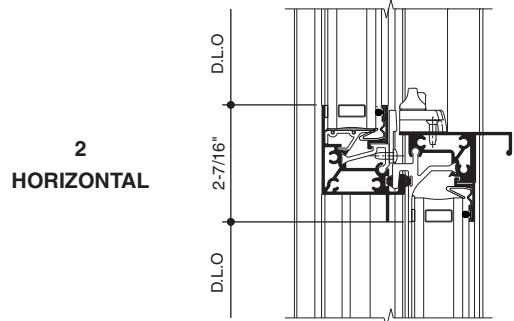


TYPICAL ELEVATION

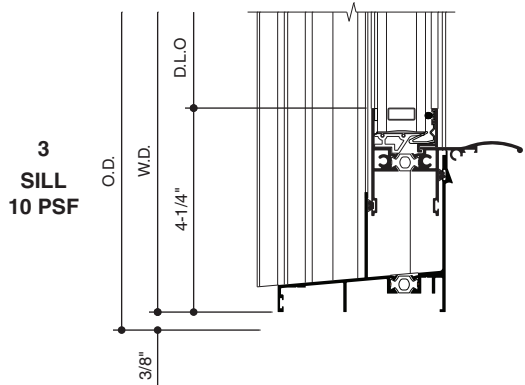
Log onto www.kawneer.com for other configurations



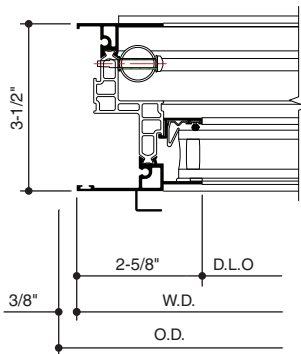
1
HEAD



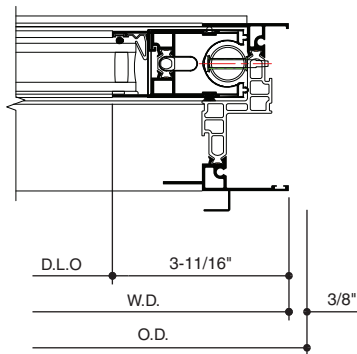
2
HORIZONTAL



3
SILL
10 PSF



4
JAMB



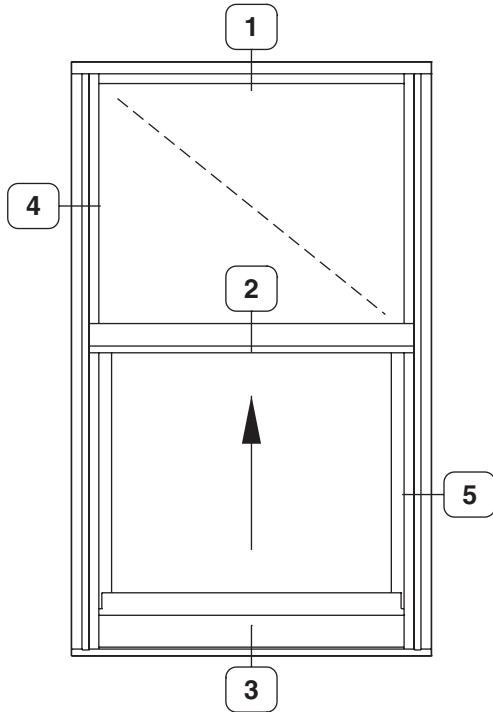
5
JAMB

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.
© Kawneer Company, Inc., 2014

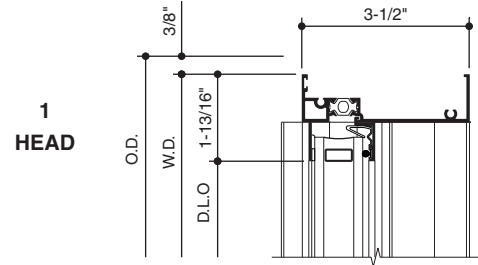
SCALE : 3" = 1'-0"

AA™3350 IsoPort™ SINGLE HUNG WINDOW
Architectural Window, Class AW-PG50-H
Class AW-PG70-H (Optional)

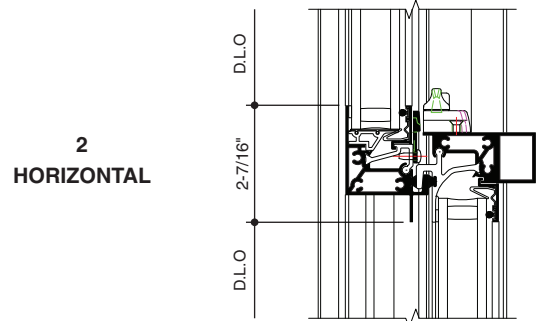


TYPICAL ELEVATION

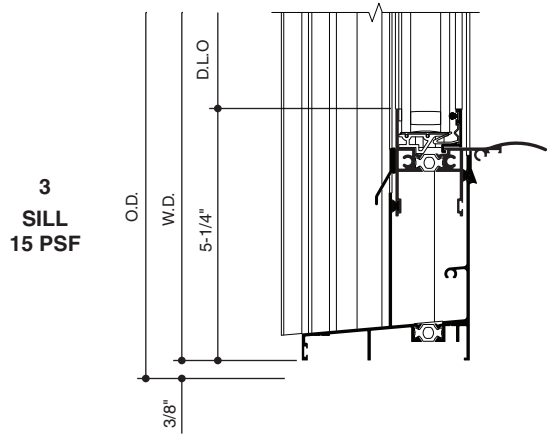
Log onto www.kawneer.com for other configurations



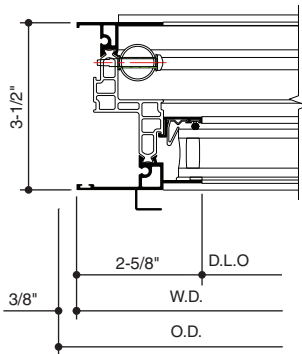
1
HEAD



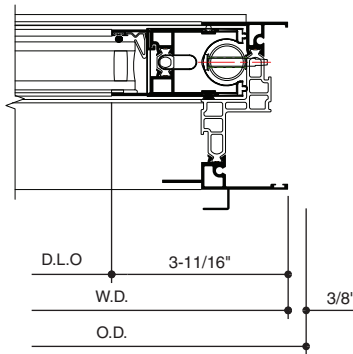
2
HORIZONTAL



3
SILL
15 PSF



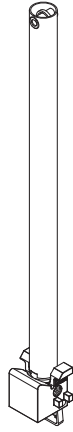
4
JAMB



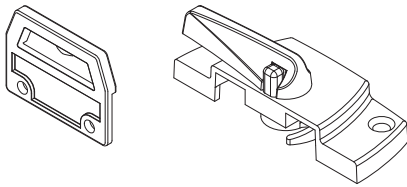
5
JAMB

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.

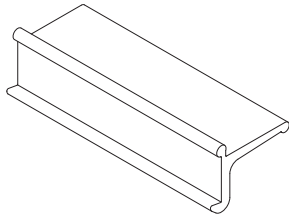
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© Kawneer Company, Inc., 2014

HEAVY DUTY BALANCES

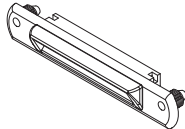
A class 5 adjustable spring balance with excellent operating forces capable of balancing heavier sash weights. The balance utilizes stainless steel components and is cycle tested for longevity.

ZINC SWEEP LOCK AND KEEPER

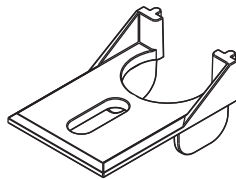
Zinc die cast sweep locks and keepers with a durable black powder coat finish and cycle tested for longevity. Includes a push button lock feature providing added security.

AUTO LOCK

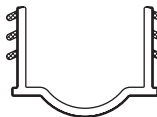
An optional black rigid PVC spring operated auto lock conveniently located under the sash lift handle. The lock automatically engages the integral sill keeper upon closing the sash.

COVERED WEEPS

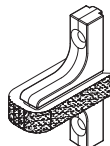
A polycarbonate weep with an integral hinged cover to allow maximum drainage of infiltrating water with a positive closing cover to block drafts and insects. The weep is available in black, white and silver finishes.

SASH CAMS

Adjustable glass filled nylon cams located left and right on the sash ensure proper alignment and smooth operation.

SASH STOPS

Black PVC sash stops are inserted into the vertical jambs without exposed fasteners to prevent excessive sash travel.

WEATHERING BLOCK

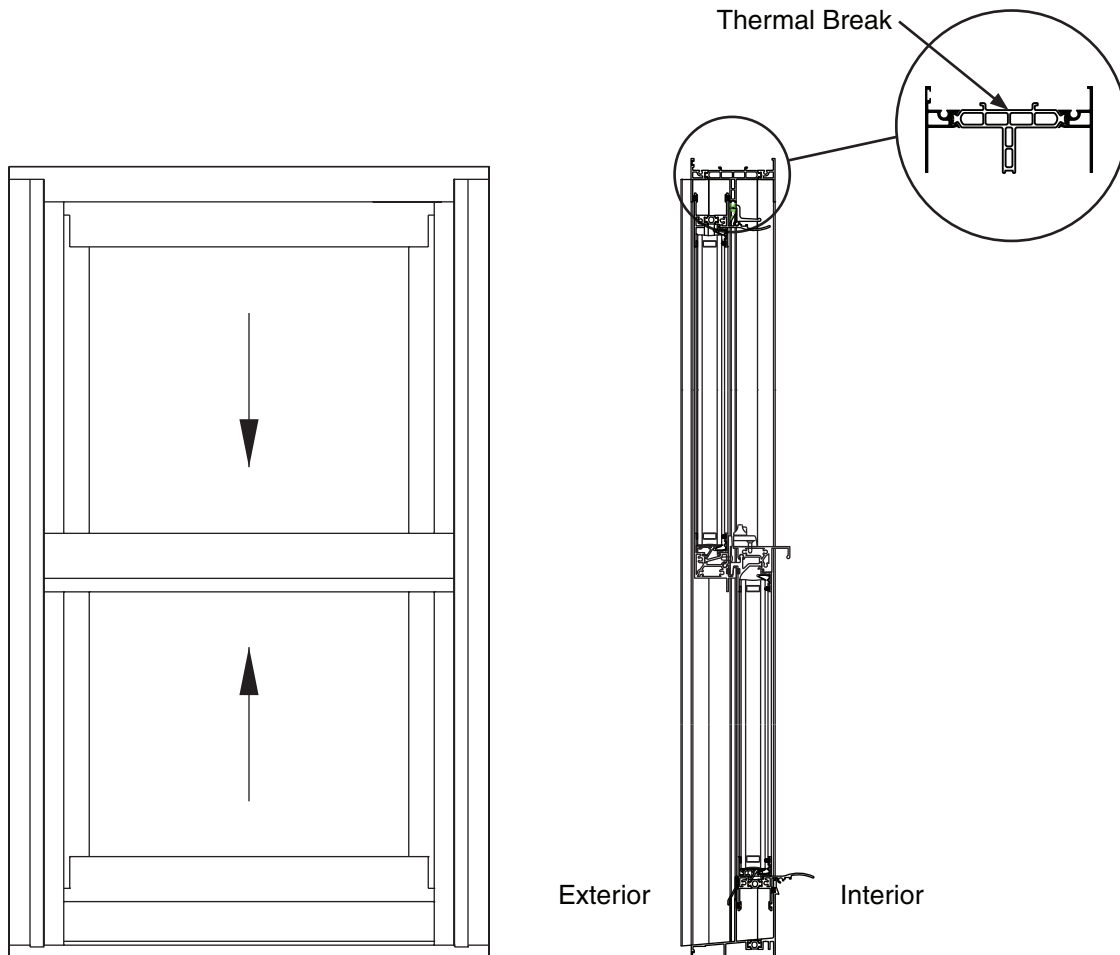
Weathering blocks located left and right at the meeting rails significantly improve resistance to air and water infiltration.

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.
© Kawneer Company, Inc., 2014

Standard Features

- High Performance Commercial Window
- IsoPort™ Thermal Break
- Screw and Spline Frame and Sash Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Two Year Manufacturer's Warranty



Double Hung Window

For specific product applications,
Consult your Kawneer representative.

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.
© Kawneer Company, Inc., 2014

CLASS and GRADE	CLASS CW-PG50-H / AW-PG50-H					
OPTIONAL CLASS and GRADE	CLASS AW-PG70-H (MAXIMUM SIZE 52" x 99")					
TESTING STANDARD	AAMA / WDMA / CSA / 101 / I.S.2 / A440-08 (NAFS-08)					
FRAME DEPTH	3-1/2" Overall Frame Depth					
TYPICAL WALL THICKNESS	.070" Nominal					
TYPICAL MAXIMUM SIZE	60" x 99" (AW), 56" x 91" (CW)					
TYPICAL MINIMUM SIZE	20" x 34" (10 PSF Sill), 20" x 35" (15 PSF Sill)					
TYPICAL CONFIGURATIONS						
STANDARD INFILL OPTIONS	1"					
STANDARD HARDWARE	Heavy Duty Balances Zinc Die Cast Sweep Locks Sash Stops Upper Sash Auto Lock					
OPTIONAL HARDWARE	Sill Auto Lock					
OTHER OPTIONS	Between the Glass Muntin Grids Exterior Applied Muntin Grids Perimeters and Sills Exterior Pannings and Interior Trims Structural Mullions Vertically or Horizontally Stacked Strap Anchors Sill for 10 PSF or 15 PSF Water Performance Insect Screens Nailing Fin Flange					
DOUBLE HUNG WINDOW PRODUCT PERFORMANCE						
Air Infiltration NAFS-08	Water Resistance NAFS-08	Design Load NAFS-08	Thermal Transmittance AAMA 507 NFRC 100	Condensation Resistance* AAMA 1503	Condensation Temperature Index* CSA A440.2	Sound Transmittance** ASTM E 1425 ASTM E 1332
≤ 0.30 Cfm/ft ²	CW - 10 PSF AW - 15 PSF	50 PSF 70 PSF	"U" Factor 0.39 to 0.57	CRF frame - 57 CRF glass - 60	I frame - 33 I glass - 60	STC - 34 OITC - 29

Note: "U" Values based on computer simulations utilizing Insulating Glass, Low E Coatings and Warm Edge Spacers. See Thermal Charts for various glass types.

* CRF and Temperature index based on high performance Low E Glass and Warm Edge Spacers.

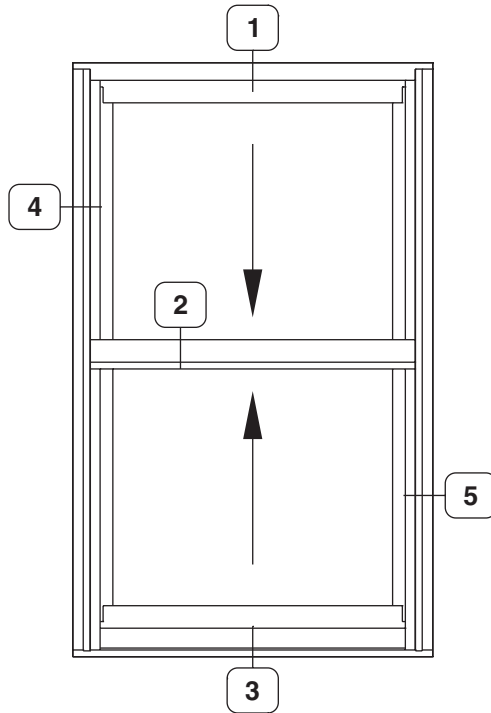
** Acoustical test based on laminated glass.

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.
© Kawneer Company, Inc., 2014

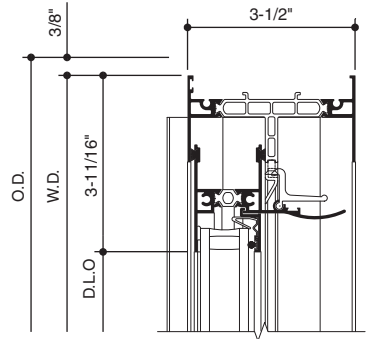
SCALE : 3" = 1'-0"

AA™3350 IsoPort™ DOUBLE HUNG WINDOW
Commercial Window, Class CW-PG50-H

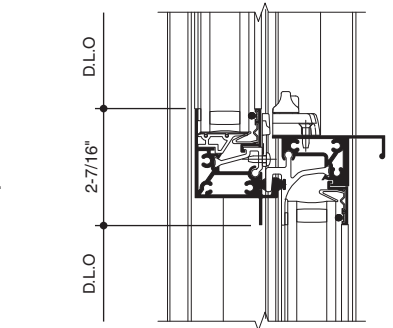


TYPICAL ELEVATION

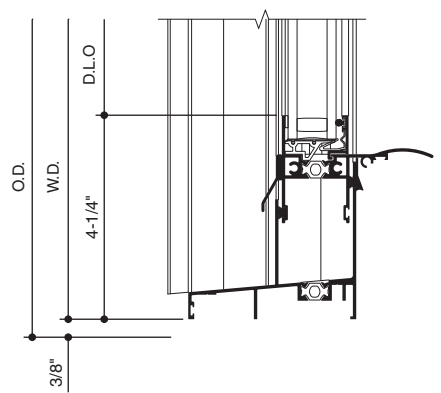
Log onto www.kawneer.com for other configurations



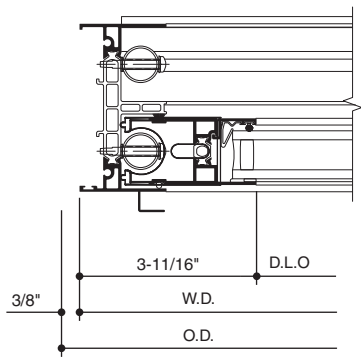
1
HEAD



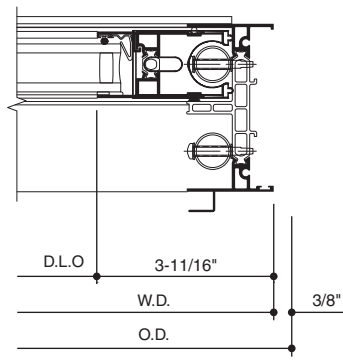
2
HORIZONTAL



3
SILL
10 PSF



4
JAMB



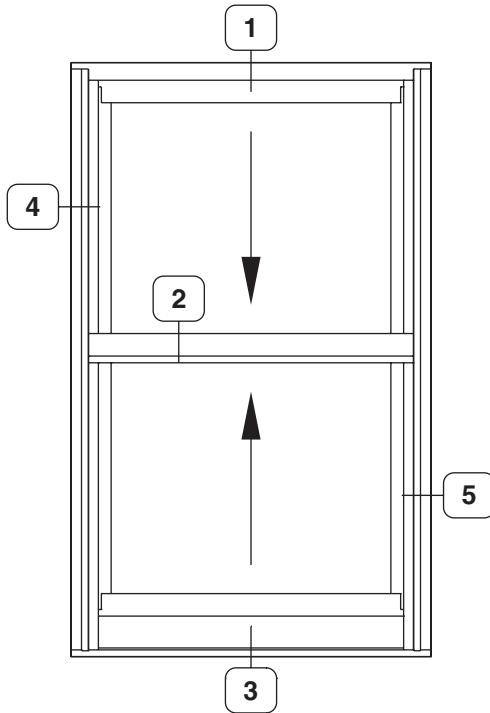
5
JAMB

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.
© Kawneer Company, Inc., 2014

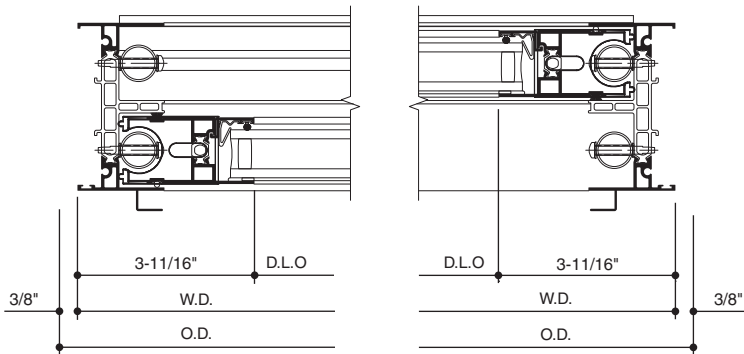
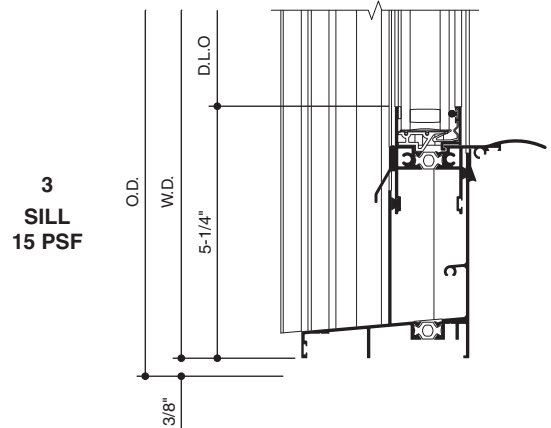
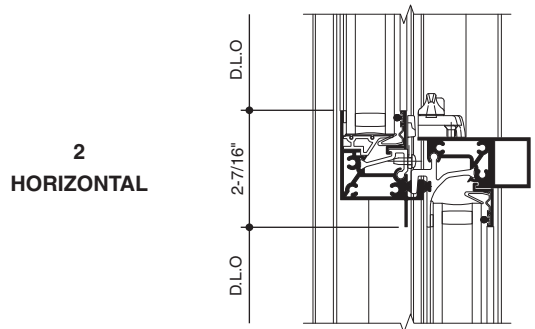
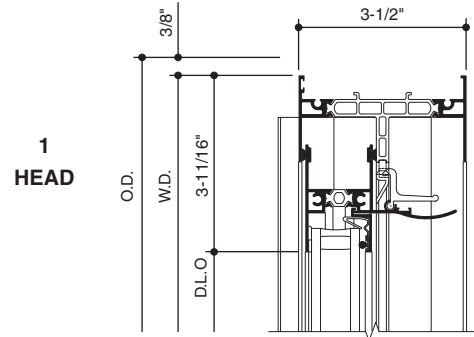
SCALE : 3" = 1'-0"

AA™3350 IsoPort™ DOUBLE HUNG WINDOW
 Architectural Window, Class AW-PG50-H
 Class AW-PG70-H (Optional)



TYPICAL ELEVATION

Log onto www.kawneer.com for other configurations



4 JAMB

5 JAMB

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.

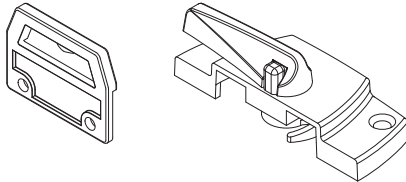
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
 © Kawneer Company, Inc., 2014

HEAVY DUTY BALANCES



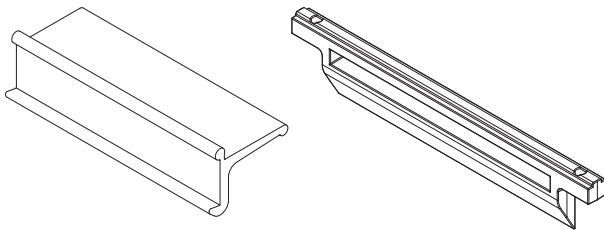
A class 5 adjustable spring balance with excellent operating forces capable of balancing heavier sash weights. The balance utilizes stainless steel components and is cycle tested for longevity.

ZINC SWEEP LOCK AND KEEPER



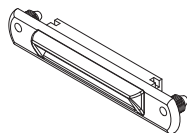
Zinc die cast sweep locks and keepers with a durable black powder coat finish and cycle tested for longevity. Includes a push button lock feature providing added security.

AUTO LOCK AND KEEPER



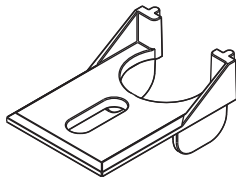
A black rigid PVC spring operated auto lock located on the upper sash. The lock automatically engages the head keeper securing the upper sash in the closed position. The auto lock is an option for the lower sash.

COVERED WEEPS



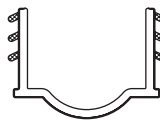
A polycarbonate weep with an integral hinged cover to allow maximum drainage of infiltrating water with a positive closing cover to block drafts and insects. The weep is available in black, white and silver finishes.

SASH CAMS



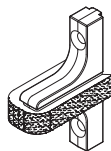
Adjustable glass filled nylon cams located left and right on the sash ensure proper alignment and smooth operation.

SASH STOPS



Black PVC sash stops are inserted into the vertical jambs without exposed fasteners to prevent excessive sash travel.

WEATHERING BLOCK



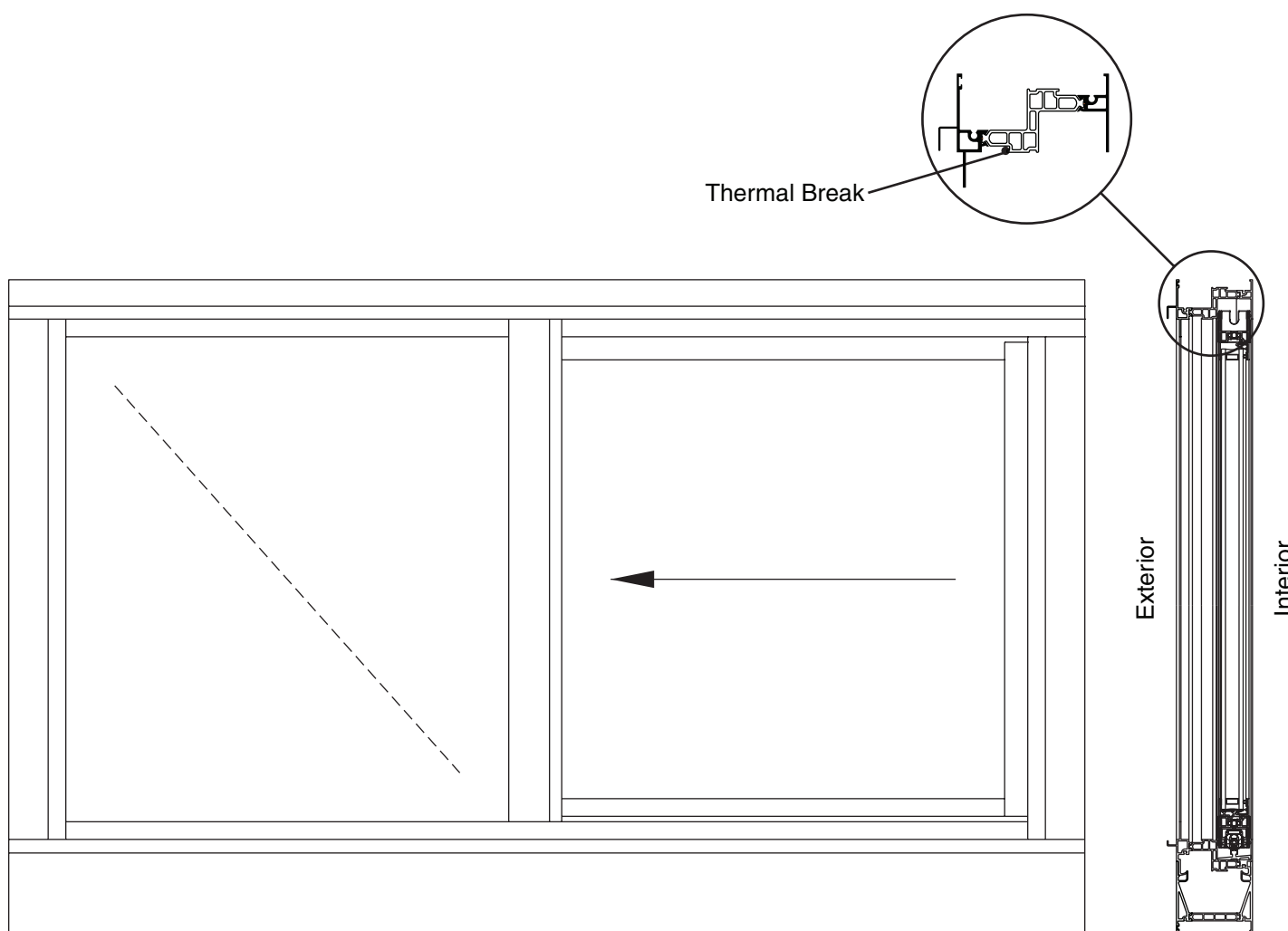
Weathering blocks located left and right at the meeting rails significantly improve resistance to air and water infiltration.

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.
© Kawneer Company, Inc., 2014

Standard Features

- High Performance Window
- IsoPort™ Thermal Break
- Screw and Spline Frame and Sash Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead with Bulb Gasket
- Architectural Anodized Finishes and Applied Coatings
- Two Year Manufacturer's Warranty



Horizontal Sliding Window

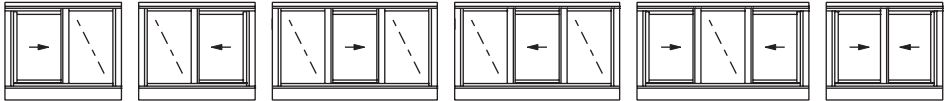
For specific product applications,
Consult your Kawneer representative.

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.
© Kawneer Company, Inc., 2014

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.
© Kawneer Company, Inc., 2014

CLASS and GRADE	Class CW-PG50-HS / AW-PG50-HS
OPTIONAL CLASS and GRADE	Class AW-PG70-HS (Max Size: 99" x 71" OX)
TESTING STANDARD	AAMA / WDMA / CSA 101 / I.S. 2 / A440-08 (NAFS-08)
FRAME DEPTH	3-1/2" Overall Frame Depth
TYPICAL WALL THICKNESS	.070" Nominal
TYPICAL MAXIMUM SIZE	99" x 79" (OX,XO,XX) 148-1/2" x 79" (OXO,XOX)
TYPICAL MINIMUM SIZE	32" x 20" (OX,XO,XX) 48" x 20" (OXO,XOX)
TYPICAL CONFIGURATIONS	
STANDARD INFILL OPTIONS	1"
STANDARD HARDWARE	Composite Adjustable Tandem Roller Zinc Die Cast Sweep Lock
OPTIONAL HARDWARE	PVC Auto Lock
OTHER OPTIONS	Between the Glass Muntin Grids Exterior Applied Muntin Grids Perimeters and Sills Exterior Pannings and Interior Trims Structural Mullions Vertically or Horizontally Stacked Sill for 10 PSF or 15 PSF Water Performance Insect Screens

HORIZONTAL SLIDER WINDOW PRODUCT PERFORMANCE

Air Infiltration NAFS-08	Water Resistance NAFS-08	Design Load NAFS-08	Thermal Transmittance AAMA 507 NFRC 100	Condensation Resistance* AAMA 1503	Condensation Temperature Index* CSA A440.2	Sound Transmittance** ASTM E 1425 ASTM E 1332
≤ 0.30 Cfm/ft ²	CW - 10 PSF AW - 15 PSF	50 PSF 70 PSF	"U" Factor 0.37 to 0.54	CRF frame - 66 CRF glass - 66	I frame - 45 I glass - 62	STC - 37 OITC - 29

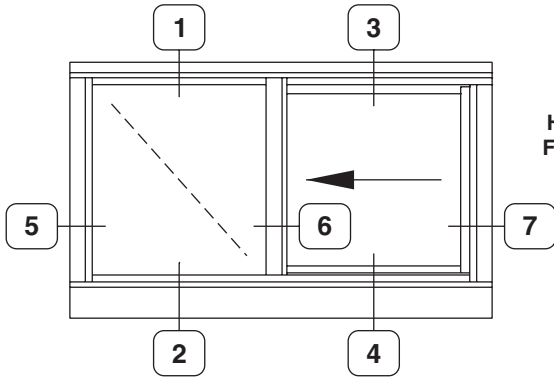
Note: "U" Values based on computer simulations utilizing Insulating Glass, Low E Coatings and Warm Edge Spacers. See Thermal Charts for various glass types.

* CRF and Temperature index based on high performance Low E Glass and Warm Edge Spacers.

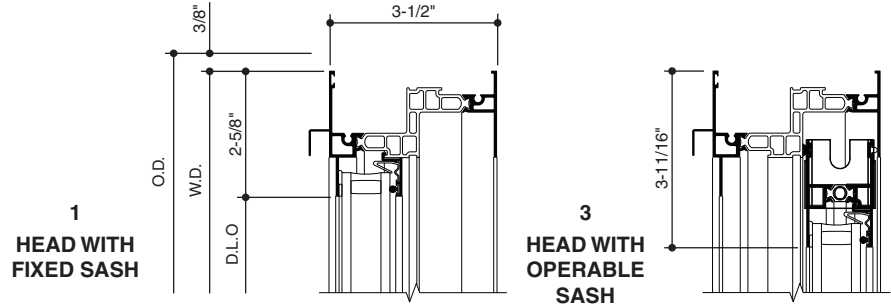
** Acoustical test based on laminated glass.

SCALE : 3" = 1'-0"

AA™3350 IsoPort™
OX HORIZONTAL SLIDER
Commercial Window,
Class CW-PG50-HS

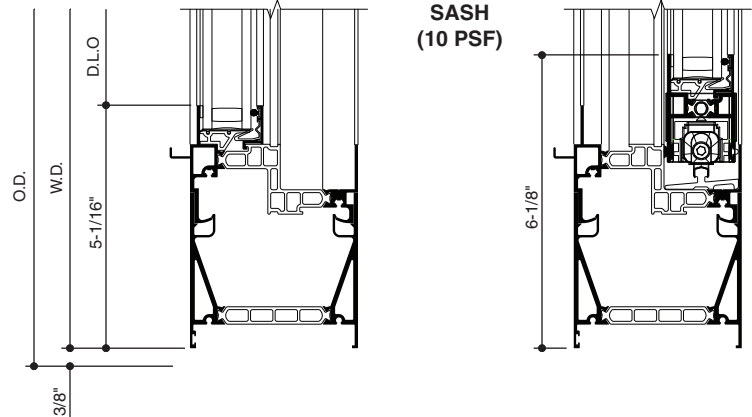


TYPICAL ELEVATION
Log onto www.kawneer.com
for other configurations



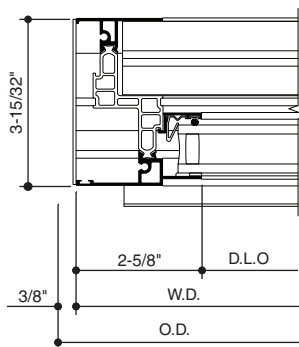
1
HEAD WITH
FIXED SASH

3
HEAD WITH
OPERABLE
SASH

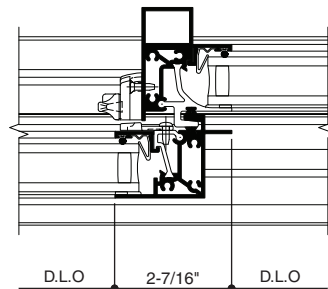


2
SILL WITH
FIXED SASH
(10 PSF)

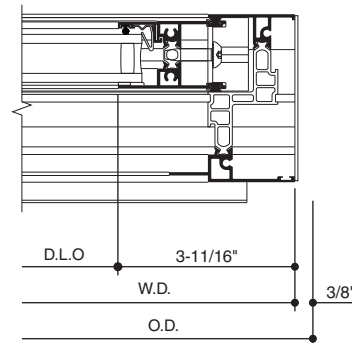
4
SILL WITH
OPERABLE
SASH
(10 PSF)



5
FIXED SASH
JAMB



6
INTERLOCK



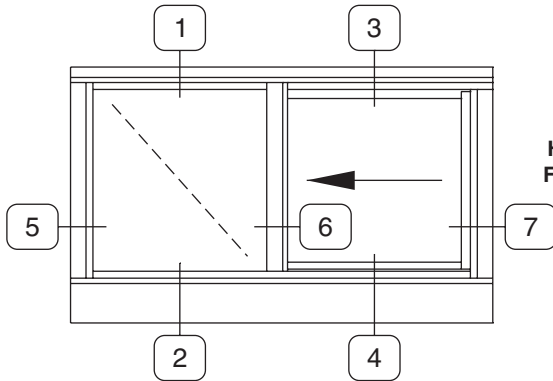
7
OPERABLE SASH
JAMB

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.

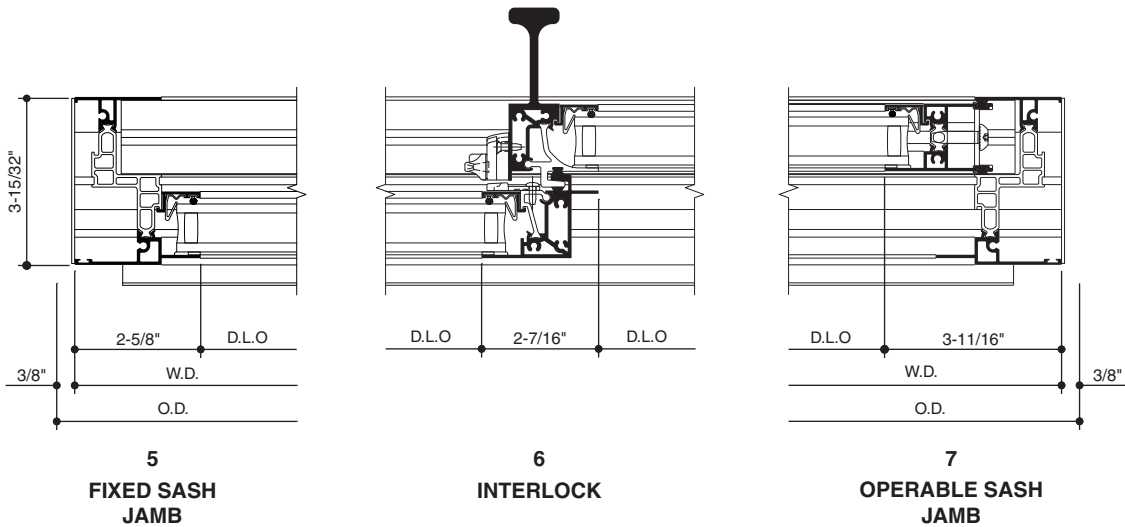
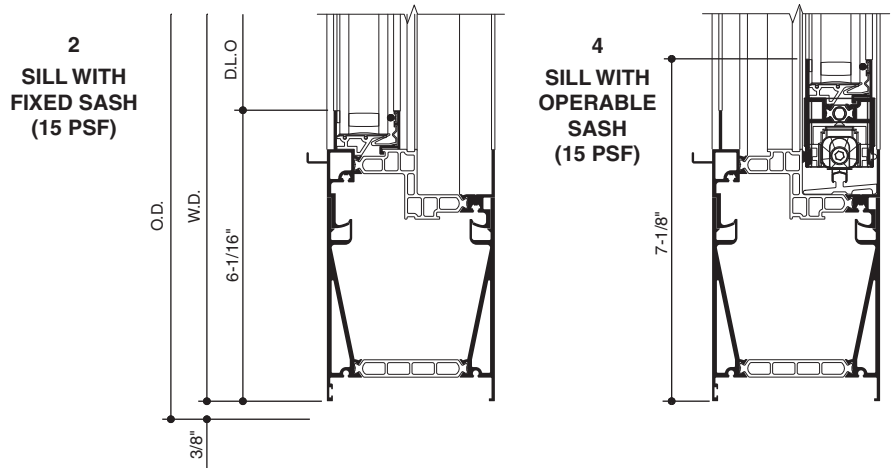
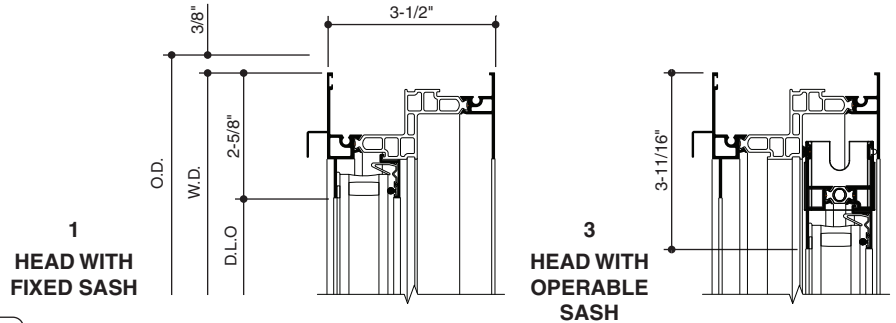
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© Kawneer Company, Inc., 2014

SCALE : 3" = 1'-0"

AA™3350 IsoPort™
OX HORIZONTAL SLIDER
Architectural Window,
Class AW-PG50-HS
Class AW-PG70-HS (Optional)

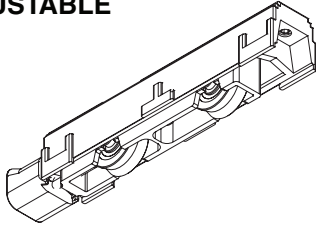


TYPICAL ELEVATION
Log onto www.kawneer.com
for other configurations

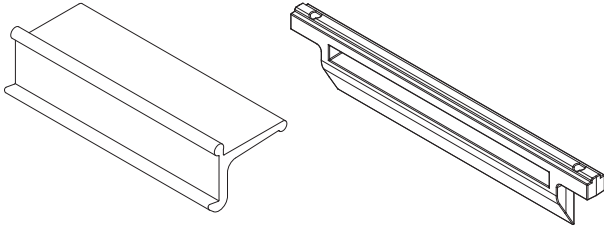


Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

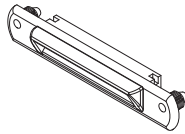
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© Kawneer Company, Inc., 2014

**COMPOSITE ADJUSTABLE
TANDEM ROLLER**

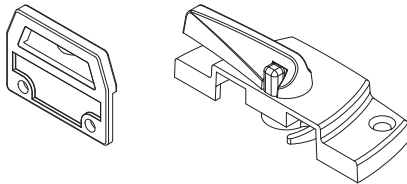
Glass filled nylon housing, die cast zamak roller support, precision sealed ball bearing rollers with nylon tires.

PVC AUTO LOCK AND KEEPER

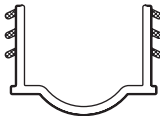
A black rigid PVC, spring operated auto lock, located on the jamb. The lock automatically engages the jamb keeper securing the sash in the closed position. The auto lock is standard for the exterior sash of the XX configuration only.

COVERED WEEP

A polycarbonate weep with an integral hinged cover to allow maximum drainage of infiltrating water with a positive closing cover to block drafts and insects. The weep is available in black, white and silver finishes.

ZINC SWEEP LOCK AND KEEPER

Zinc die cast sweep locks and keepers with a durable black powder coat finish and cycle tested for longevity. Includes a push button lock feature providing added security.

SASH STOPS

Black PVC sash stops are inserted into the head without exposed fasteners to prevent excessive sash travel.

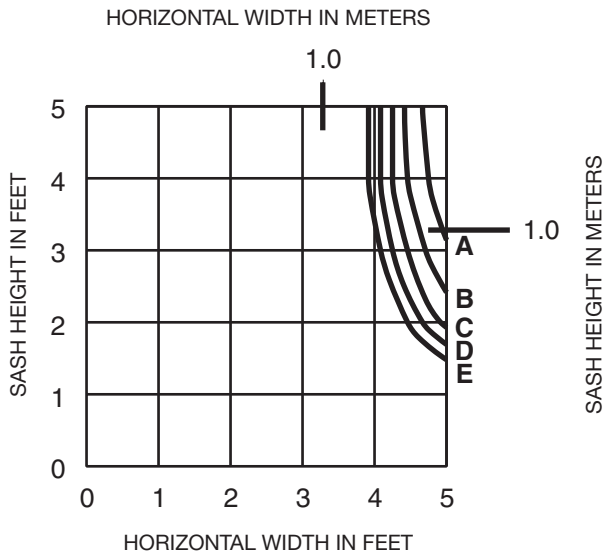
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© Kawneer Company, Inc., 2014

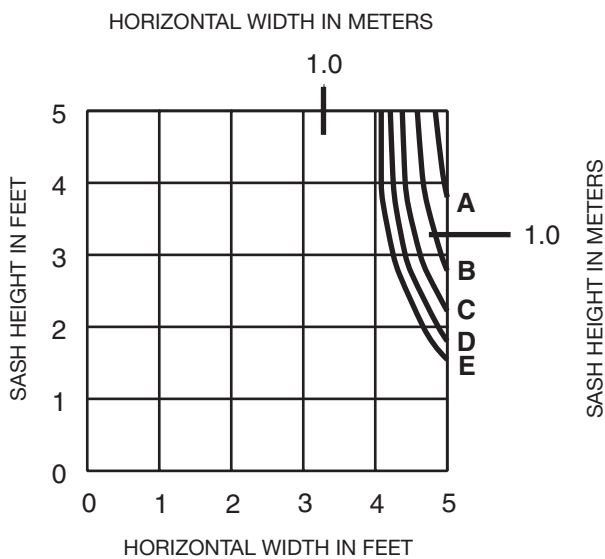
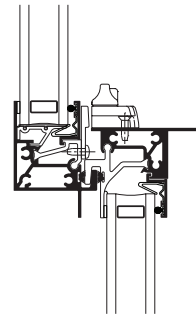
WIND LOAD CHARTS:

THESE CHARTS ARE BASED ON A MAXIMUM DEFLECTION OF L/175 AND/OR A MAXIMUM STRESS OF 15,152 psi (104 MPa). If the design wind load is determined through the analytical procedures of ASCE/SEI 7-10 or earlier editions, the load shall be based on the nominal loads used in allowable stress design. A 4/3 increase in allowable stress has not been used to develop these curves.

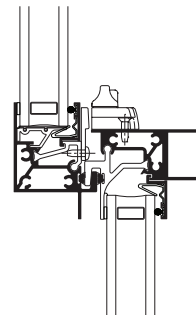
- A = 40 PSF (1915)
- B = 50 PSF (2394)
- C = 60 PSF (2873)
- D = 70 PSF (3352)
- E = 80 PSF (3830)



SINGLE HUNG INTERMEDIATE CW-RATED



SINGLE HUNG INTERMEDIATE AW-RATED



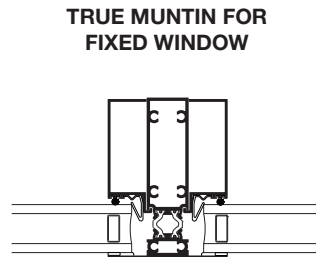
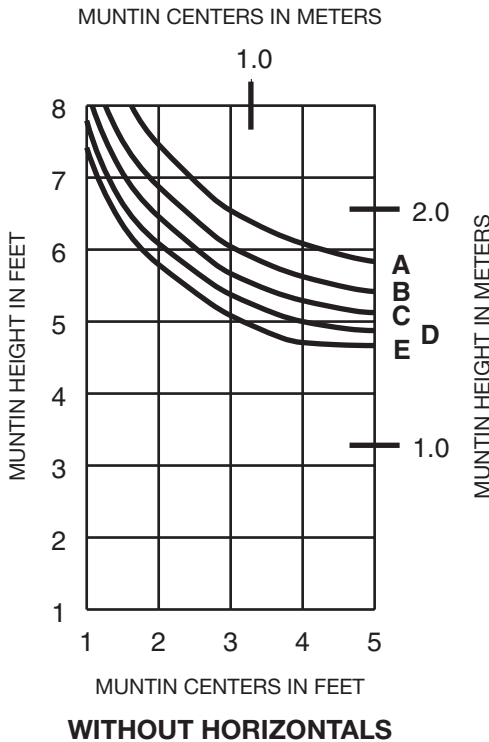
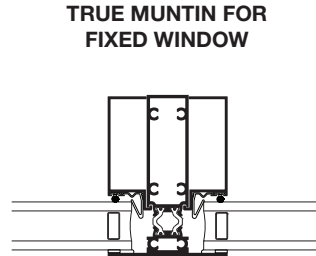
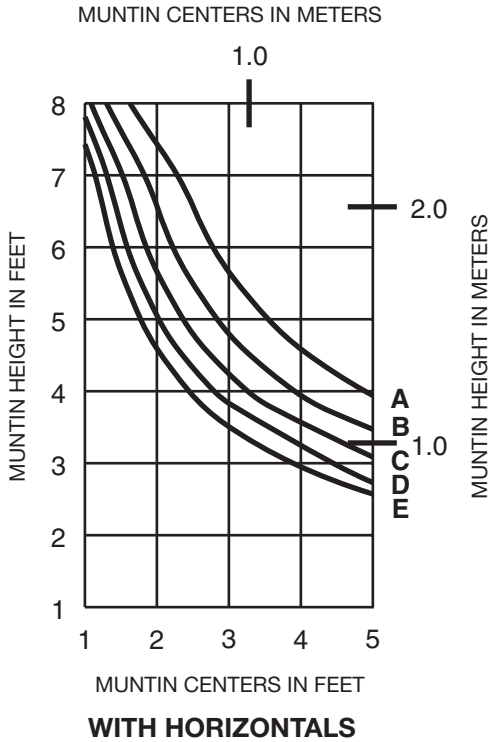
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© Kawneer Company, Inc., 2014

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). If the design wind load is determined through the analytical procedures of ASCE/SEI 7-10 or earlier editions, the load shall be based on the nominal loads used in allowable stress design. A 4/3 increase in allowable stress has not been used to develop these curves.

- A = 40 PSF (1915)
- B = 50 PSF (2394)
- C = 60 PSF (2873)
- D = 70 PSF (3352)
- E = 80 PSF (3830)

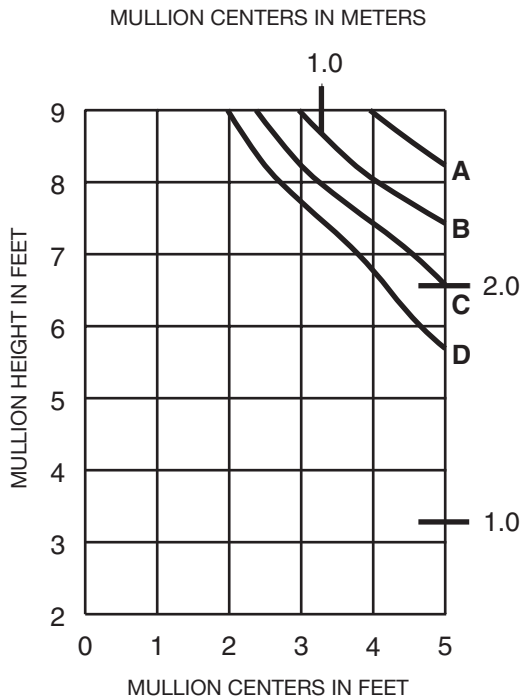


Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

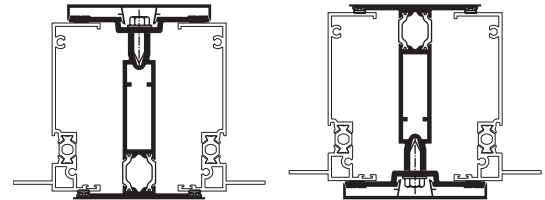
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© Kawneer Company, Inc., 2014

WIND LOAD CHARTS:

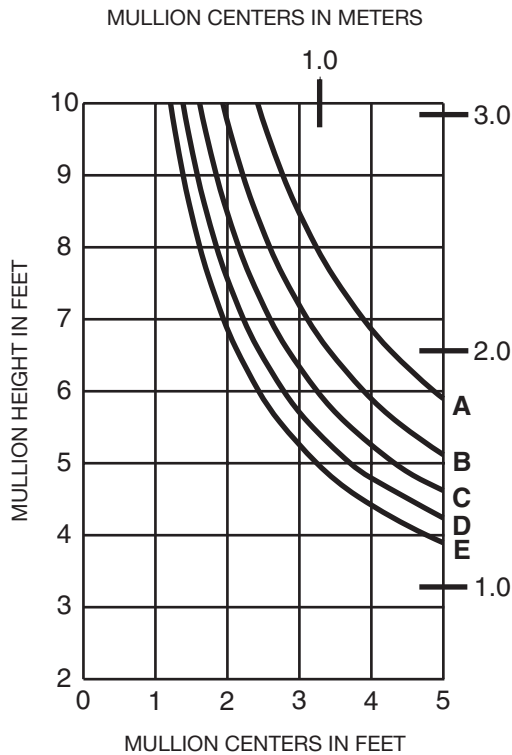
THESE CHARTS ARE BASED ON A MAXIMUM DEFLECTION OF L/175 AND/OR A MAXIMUM STRESS OF 15,152 psi (104 MPa). If the design wind load is determined through the analytical procedures of ASCE/SEI 7-10 or earlier editions, the load shall be based on the nominal loads used in allowable stress design. A 4/3 increase in allowable stress has not been used to develop these curves.



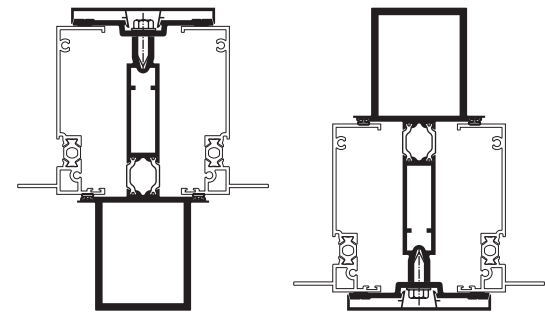
SHALLOW THREE PIECE MULLION



- A = 30 PSF (1436)
- B = 40 PSF (1915)
- C = 50 PSF (2394)
- D = 60 PSF (2873)



DEEP THREE PIECE MULLION



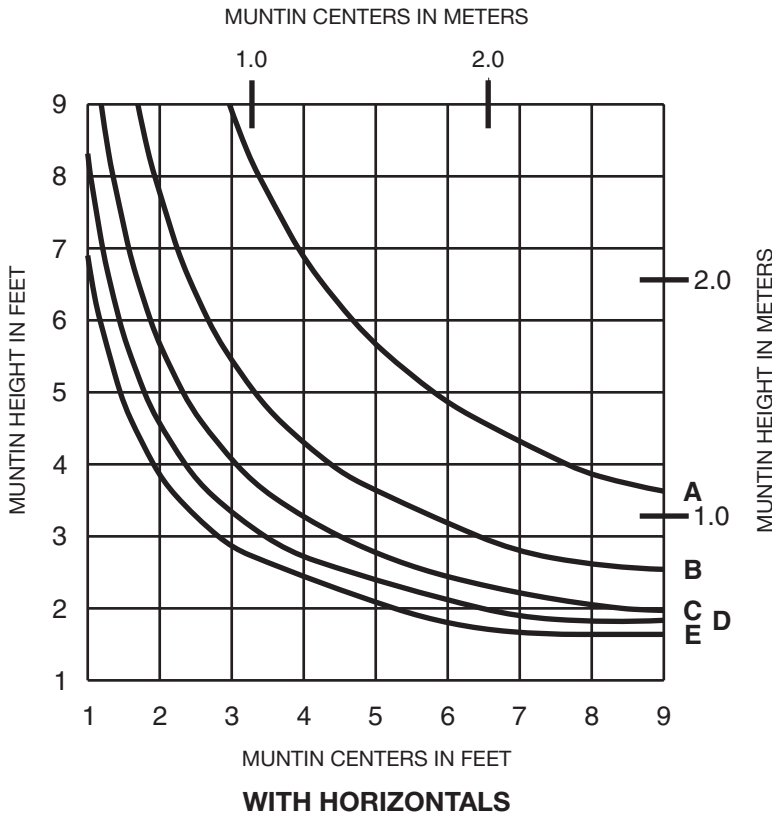
- A = 40 PSF (1915)
- B = 50 PSF (2394)
- C = 60 PSF (2873)
- D = 70 PSF (3352)
- E = 80 PSF (3830)

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.

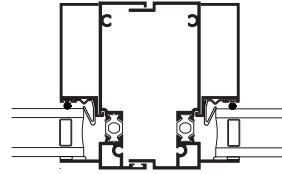
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© Kawneer Company, Inc., 2014

WIND LOAD CHARTS:

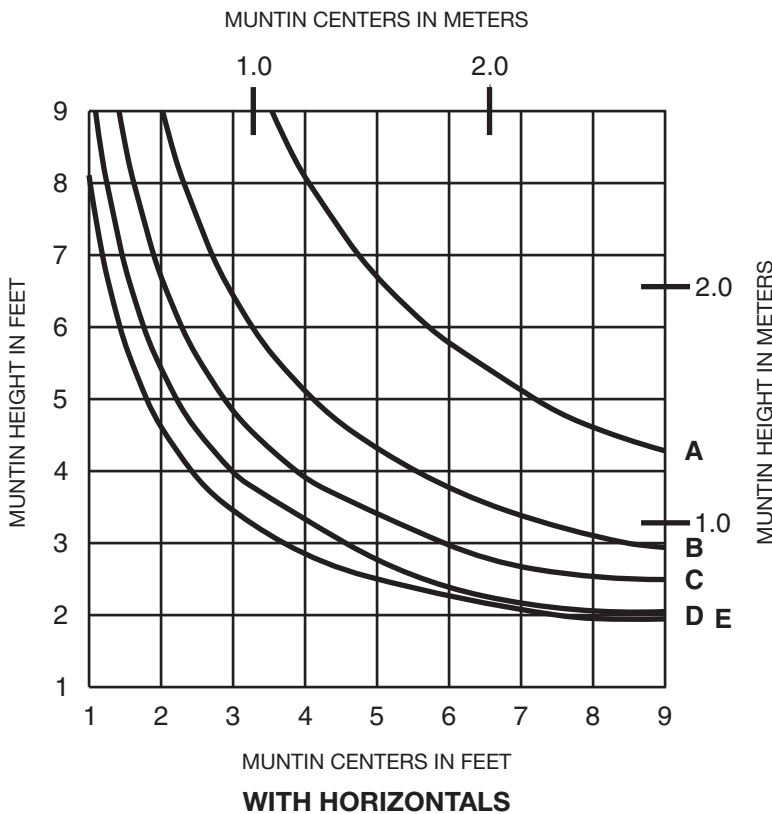
THESE CHARTS ARE BASED ON A MAXIMUM DEFLECTION OF $L/175$ AND/OR A MAXIMUM STRESS OF 15,152 psi (104 MPa). If the design wind load is determined through the analytical procedures of ASCE/SEI 7-10 or earlier editions, the load shall be based on the nominal loads used in allowable stress design. A 4/3 increase in allowable stress has not been used to develop these curves.



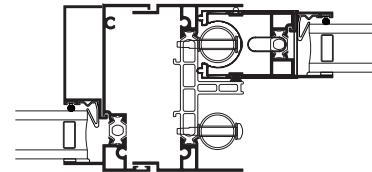
**VERTICAL STACK JAMBS
FIXED / FIXED**



- A = 20 PSF (958)
- B = 35 PSF (1676)
- C = 50 PSF (2394)
- D = 65 PSF (3112)
- E = 80 PSF (3830)



**VERTICAL STACK JAMBS
FIXED / DOUBLE HUNG**



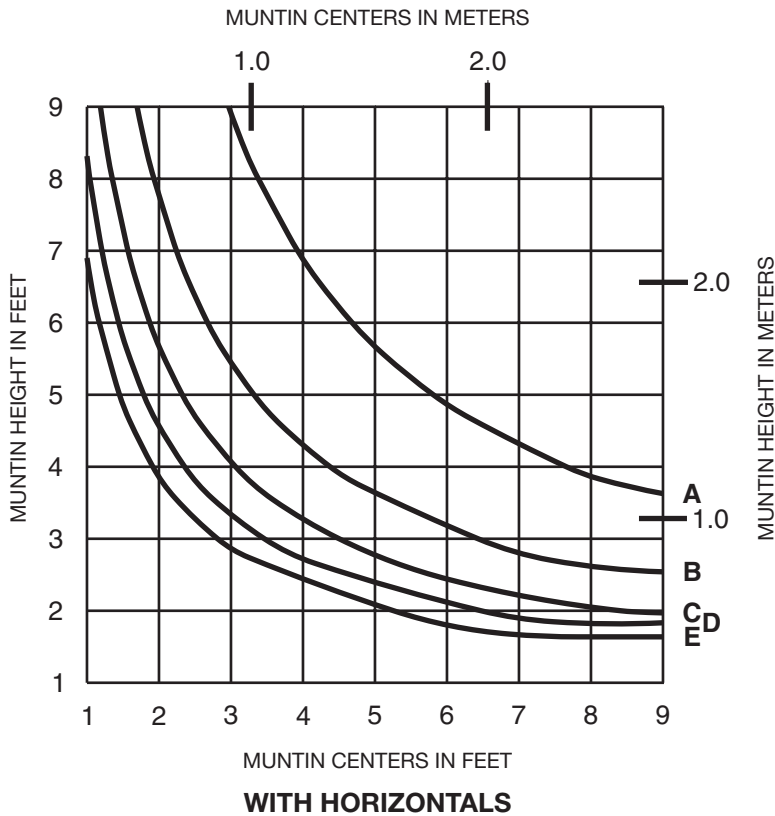
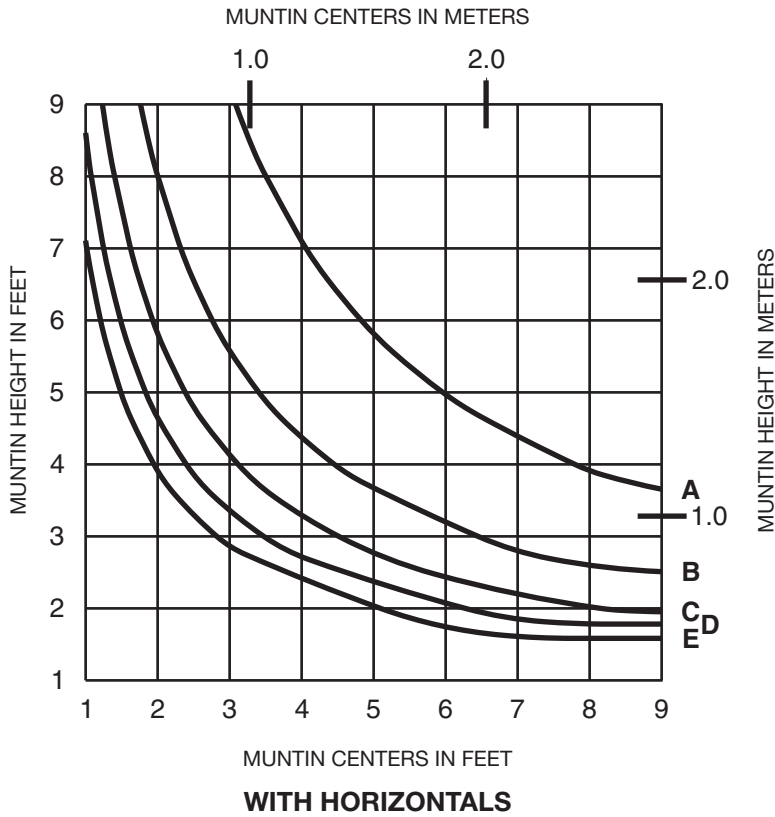
- A = 20 PSF (958)
- B = 35 PSF (1676)
- C = 50 PSF (2394)
- D = 65 PSF (3112)
- E = 80 PSF (3830)

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.
© Kawneer Company, Inc., 2014

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). If the design wind load is determined through the analytical procedures of ASCE/SEI 7-10 or earlier editions, the load shall be based on the nominal loads used in allowable stress design. A 4/3 increase in allowable stress has not been used to develop these curves.

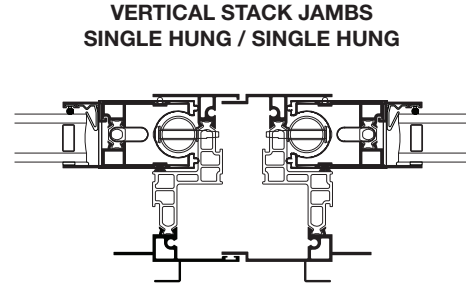
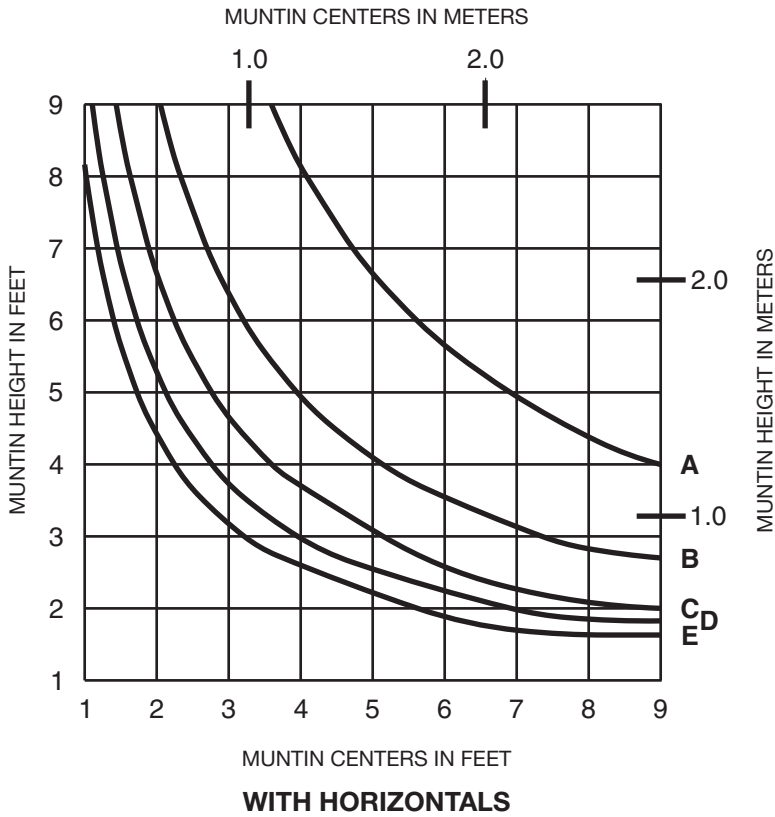


Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
 © Kawneer Company, Inc., 2014

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). If the design wind load is determined through the analytical procedures of ASCE/SEI 7-10 or earlier editions, the load shall be based on the nominal loads used in allowable stress design. A 4/3 increase in allowable stress has not been used to develop these curves.



- A = 20 PSF (958)
- B = 35 PSF (1676)
- C = 50 PSF (2394)
- D = 65 PSF (3112)
- E = 80 PSF (3830)

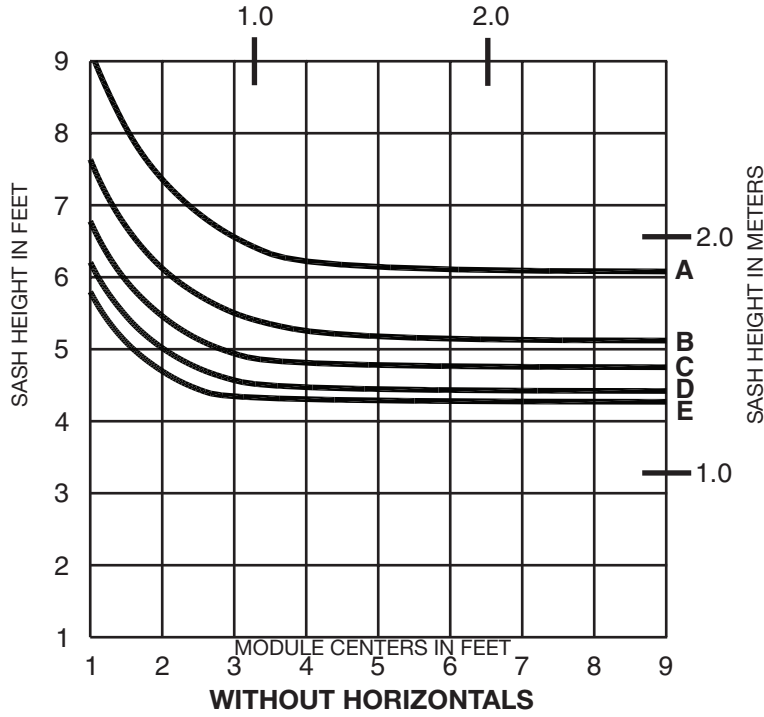
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© Kawneer Company, Inc., 2014

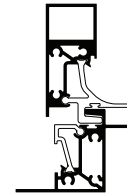
WIND LOAD CHARTS:

THESE CHARTS ARE BASED ON A MAXIMUM DEFLECTION OF L/175 AND/OR A MAXIMUM STRESS OF 15,152 psi (104 MPa). If the design wind load is determined through the analytical procedures of ASCE/SEI 7-10 or earlier editions, the load shall be based on the nominal loads used in allowable stress design. A 4/3 increase in allowable stress has not been used to develop these curves.

MODULE CENTERS IN METERS

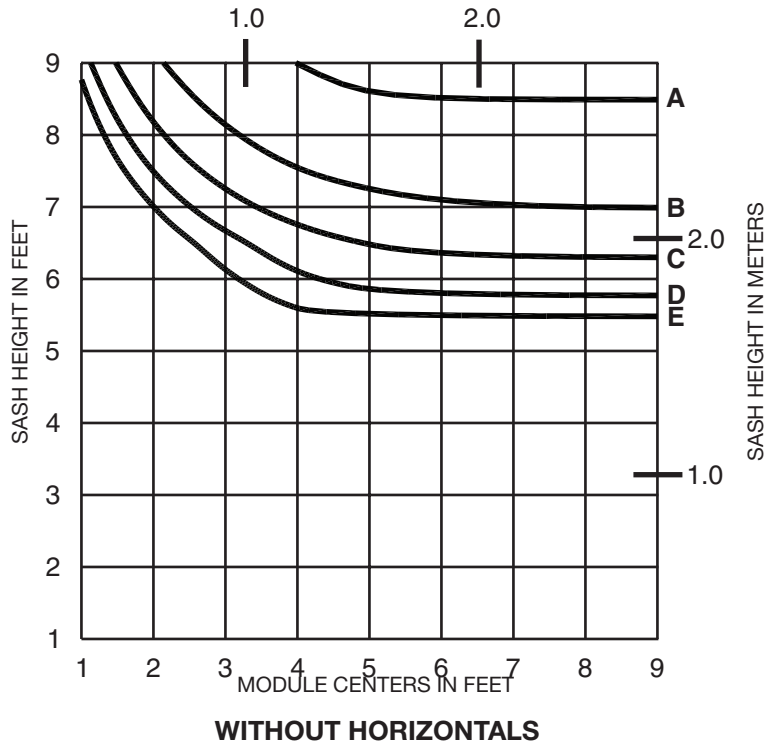


LOCK STILE
HORIZONTAL SLIDER

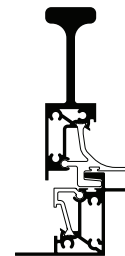


- A = 40 PSF (1915)
- B = 50 PSF (2394)
- C = 60 PSF (2873)
- D = 70 PSF (3352)
- E = 80 PSF (3830)

MODULE CENTERS IN METERS



LOCK STILE
HORIZONTAL SLIDER

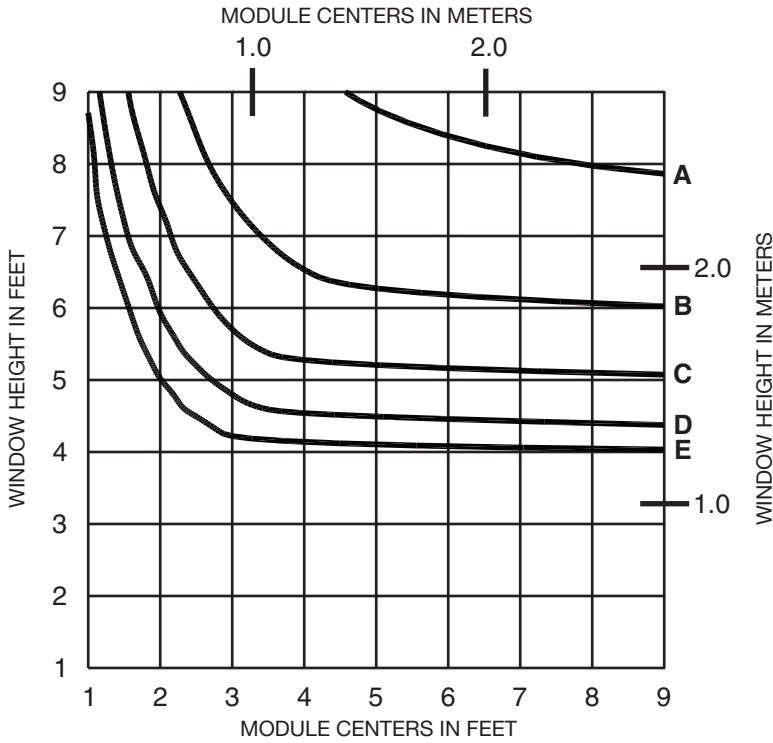


Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

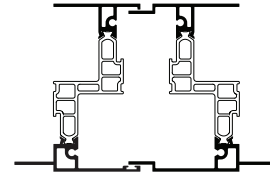
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© Kawneer Company, Inc., 2014

WIND LOAD CHARTS:

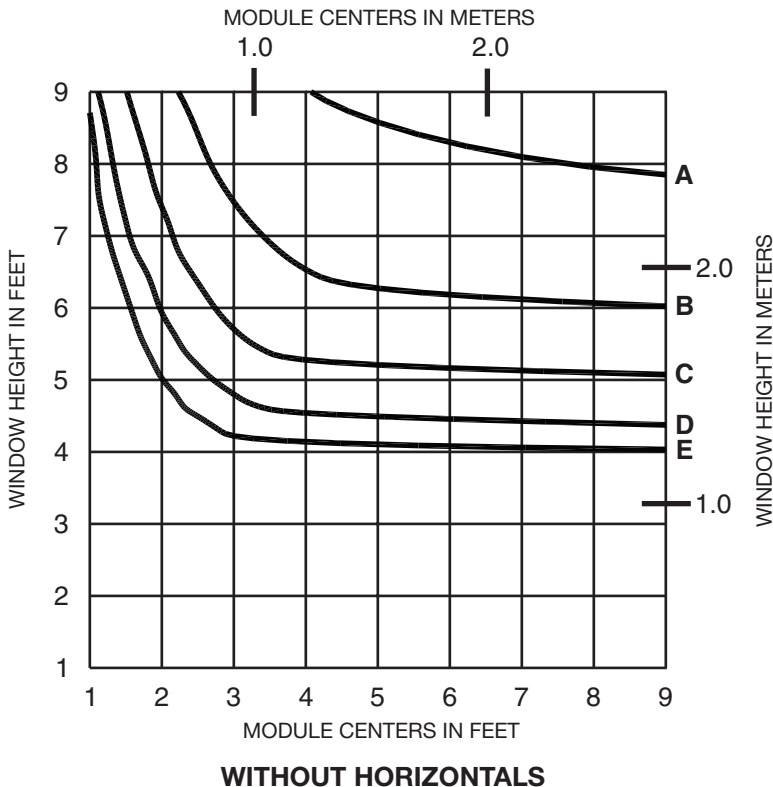
THESE CHARTS ARE BASED ON A MAXIMUM DEFLECTION OF $L/175$ AND/OR A MAXIMUM STRESS OF 15,152 psi (104 MPa). If the design wind load is determined through the analytical procedures of ASCE/SEI 7-10 or earlier editions, the load shall be based on the nominal loads used in allowable stress design. A 4/3 increase in allowable stress has not been used to develop these curves.



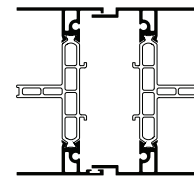
**VERTICAL STACK JAMBS
HORIZONTAL SLIDER**



- A = 20 PSF (958)
- B = 35 PSF (1676)
- C = 50 PSF (2394)
- D = 65 PSF (3112)
- E = 80 PSF (3830)



**"XX" VERTICAL STACK JAMBS
HORIZONTAL SLIDER**

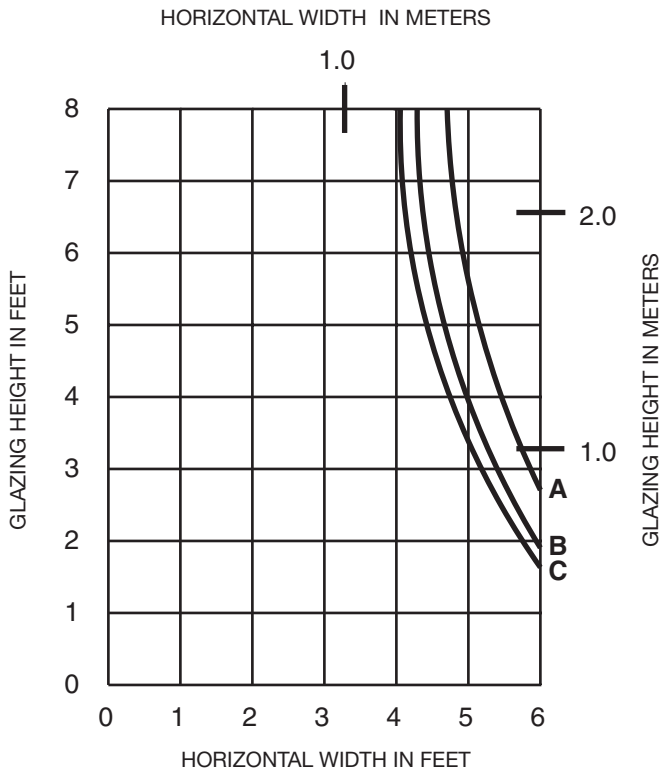


Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© Kawneer Company, Inc., 2014

DEADLOAD CHARTS:

HORIZONTAL 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 THE GLASS TYPES INDICATED SUPPORTED ON TWO SETTING BLOCKS AT EIGHT POINT LOADING BUT NO MORE THAN 6" FROM THE EDGE OF GLASS.



SINGLE HUNG OR DOUBLE HUNG HORIZONTAL

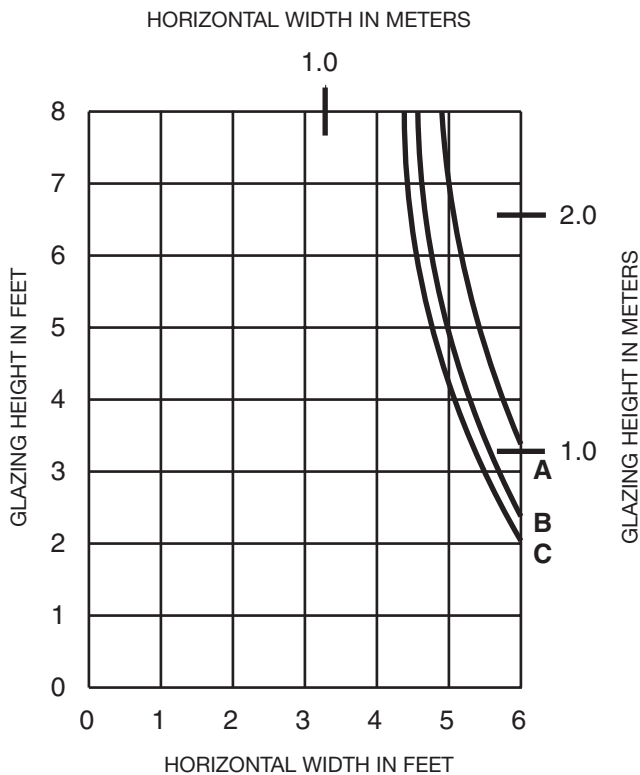


GLASS TYPE:

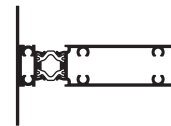
A = 1/8" - 3/4" A.S. - 1/8"

B = 3/16" - 5/8" A.S. - 3/16"

C = 1/4" - 1/2" A.S. - 1/4"



TRUE HORIZONTAL MUNTIN FOR FIXED WINDOW



GLASS TYPE:

A = 1/8" - 3/4" A.S. - 1/8"

B = 3/16" - 5/8" A.S. - 3/16"

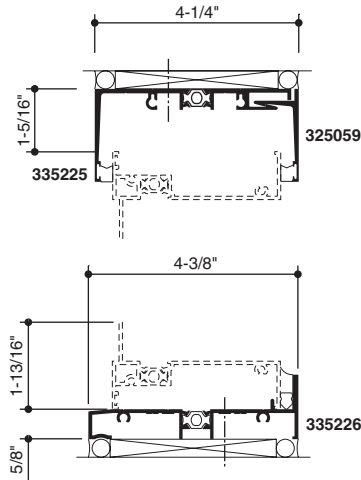
C = 1/4" - 1/2" A.S. - 1/4"

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.
© Kawneer Company, Inc., 2014

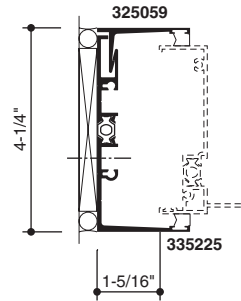
SCALE : 3" = 1'-0"

TYPICAL RECEPTOR SYSTEM



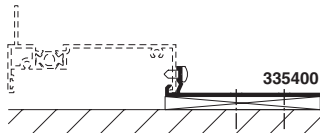
HEAD RECEPTOR (Interior Installation)

FULL DEPTH SILL

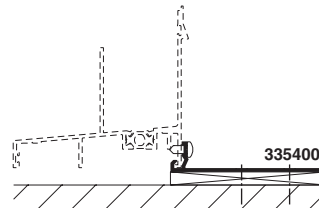


JAMB RECEPTOR (Interior Installation)

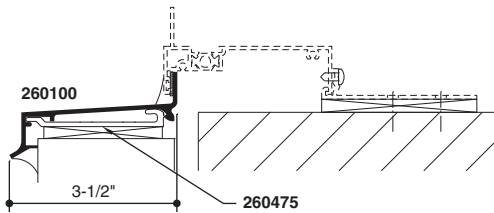
ANCHORING



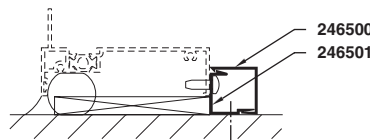
STRAP ANCHOR WITH FIXED WINDOW



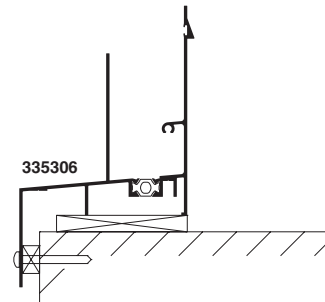
STRAP ANCHOR WITH HUNG WINDOW



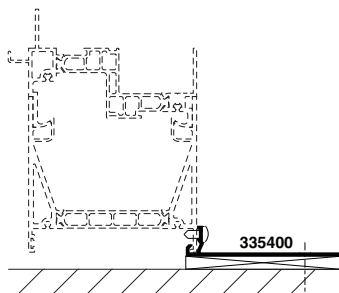
UNEQUAL LEG SILL



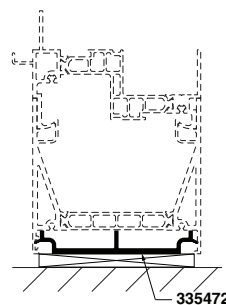
INTERIOR SNAP TRIM ANCHORING



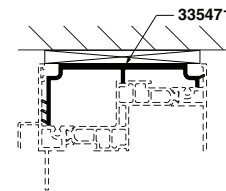
FLANGE / NAILING FIN



STRAP ANCHOR WITH HORIZONTAL SLIDER



PVC PERIMETER (Head and Jamb of XX Slider and Female Stack Jambs of Double Hung similar)

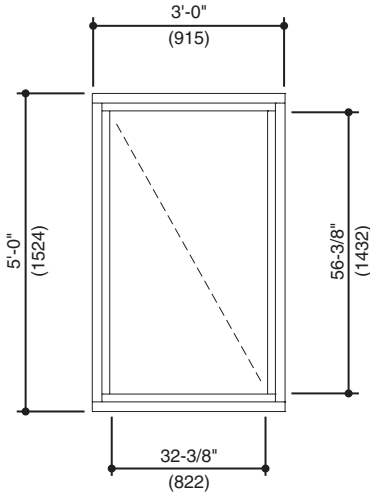


PVC PERIMETER (Typical at Head and Jamb of XO/OX/XOX/OXO Slider and Female Stack Jambs of Single Hung similar)

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.
© Kawneer Company, Inc., 2014

Project Specific U-Factor Example Calculation



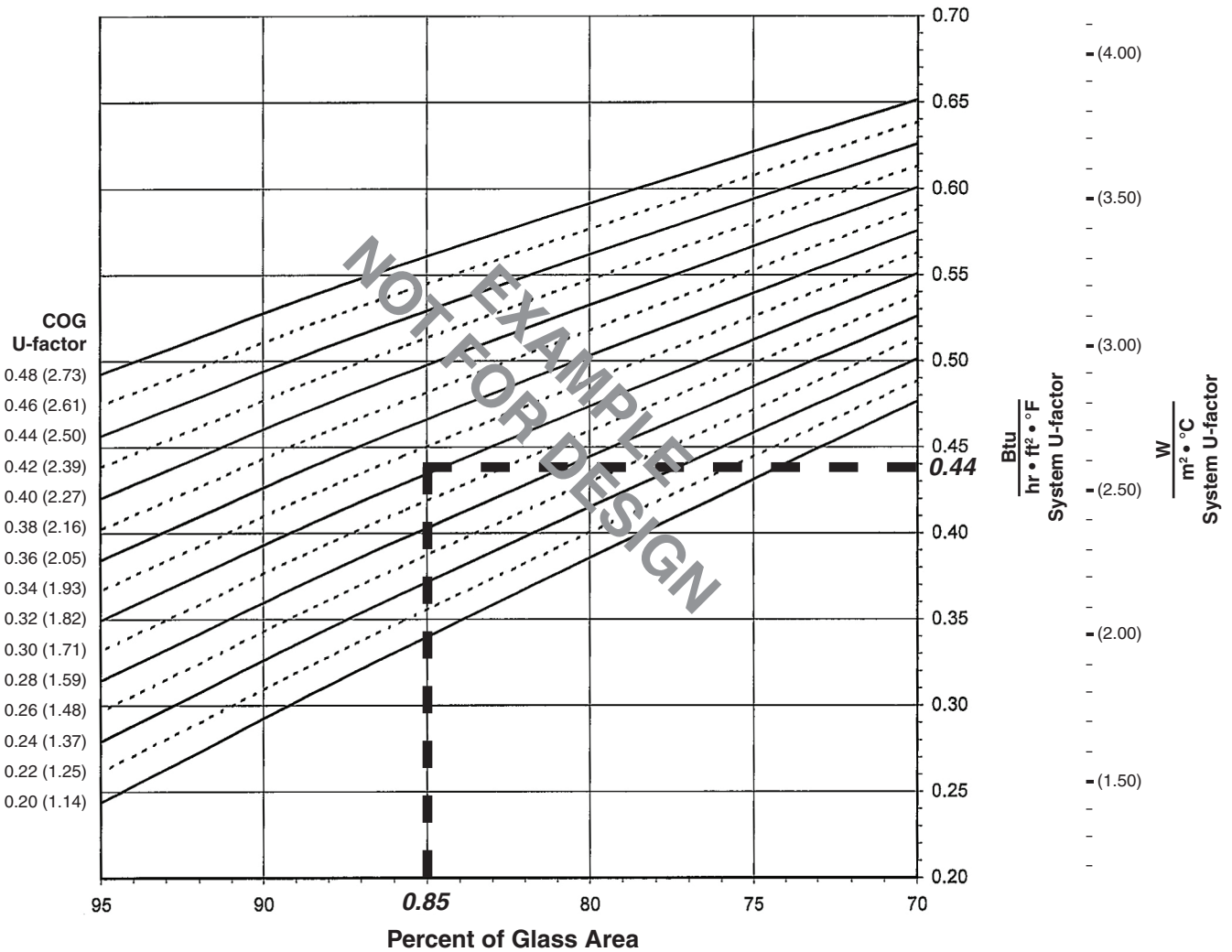
Example Glass U-Factor = 0.42 Btu/hr • ft² • °F

Total Daylight Opening = 32-3/8" • 56-3/8" = 12.67ft²

Total Projected Area = 3'-0" • 5'-0" = 15 ft²

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)100
 = (12.67 ÷ 15)100 = 85%

System U-factor vs Percent of Glass Area



Based on 85% glass and center of glass (COG) U-factor of 0.42
 System U-factor is equal to 0.44 Btu/hr • ft² • °F

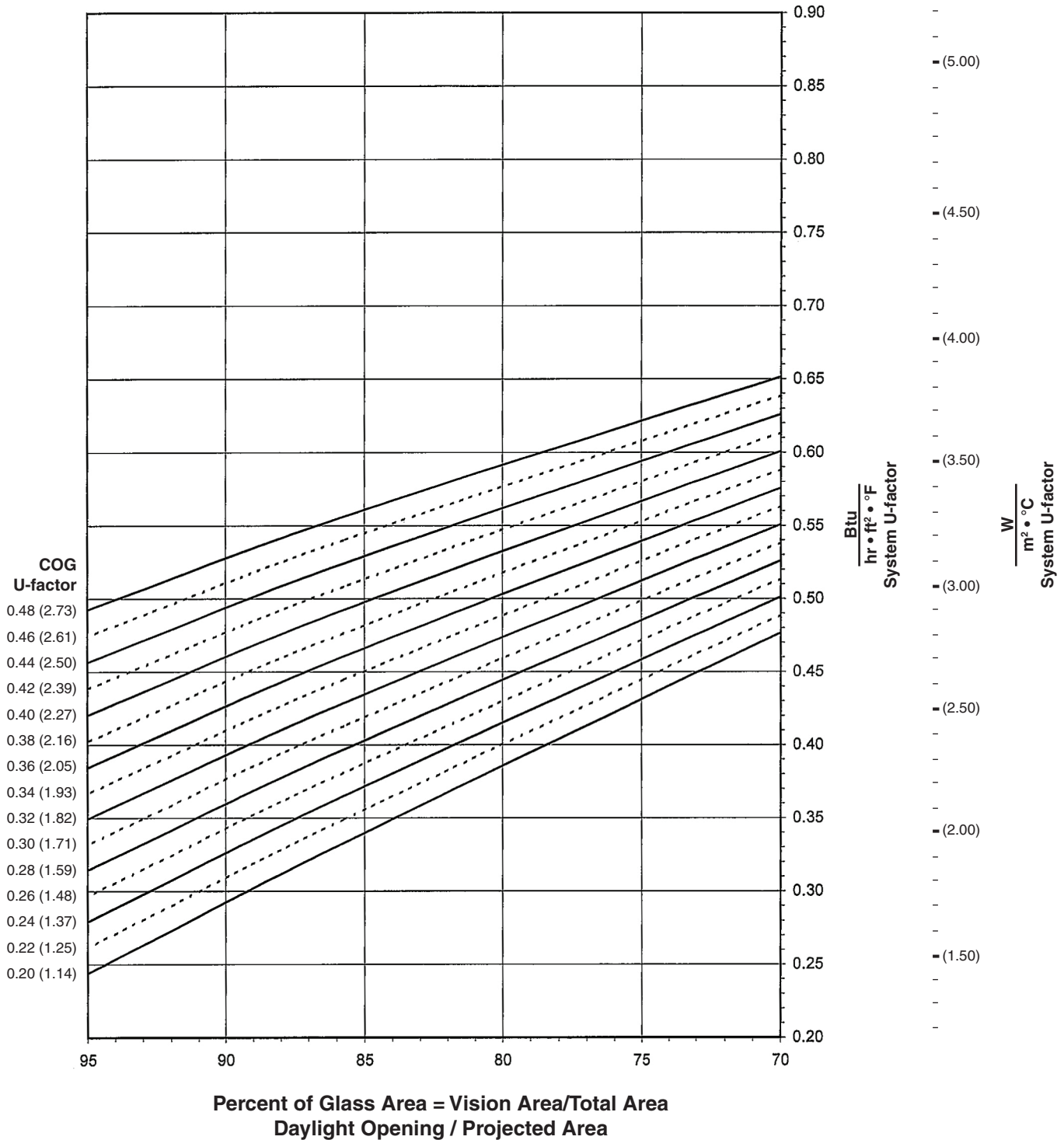
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
 © Kawneer Company, Inc., 2014

AA™3350 IsoPort™ FIXED WINDOW

Note:
 Values in parentheses are metric.
 COG = Center of Glass.
 Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area



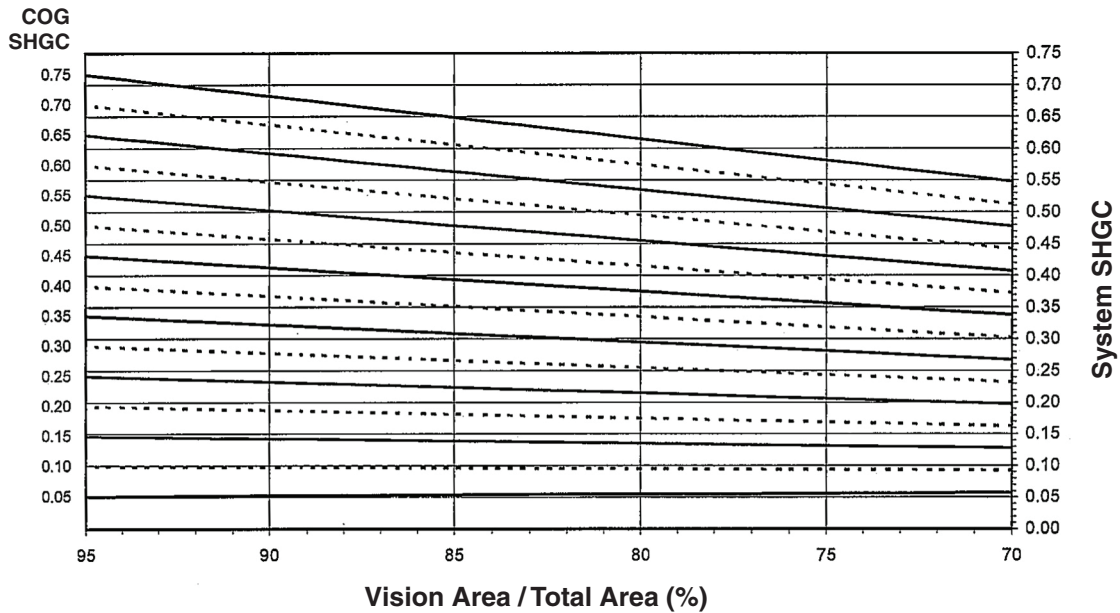
Notes for System U-factor, SHGC and VT charts:
 For glass values that are not listed, linear interpolation is permitted.
 Glass properties are based on center of glass values and are obtained from your glass supplier.

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.

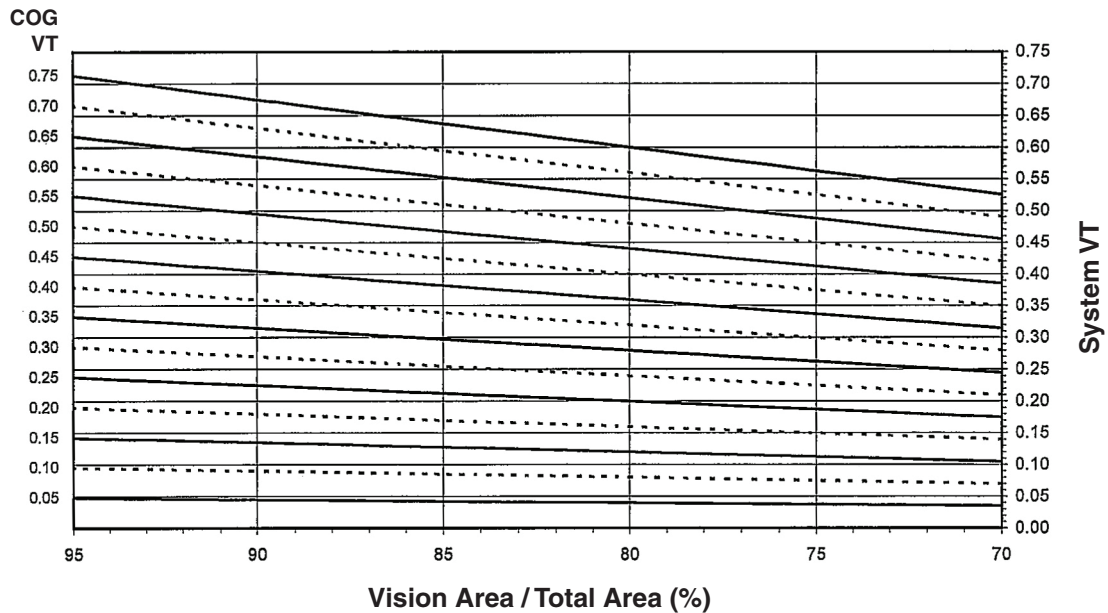
 Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
 © Kawneer Company, Inc., 2014

AA™3350 IsoPort™ FIXED WINDOW

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



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.
© Kawneer Company, Inc., 2014

AA™3350 IsoPort™ FIXED WINDOW

Thermal Transmittance¹ (BTU/hr • ft² • °F)

Glass U-Factor ³	Overall U-Factor ⁴
0.48	0.56
0.46	0.54
0.44	0.52
0.42	0.51
0.40	0.49
0.38	0.48
0.36	0.46
0.34	0.44
0.32	0.43
0.30	0.41
0.28	0.40
0.26	0.38
0.24	0.36
0.22	0.35
0.20	0.33

SHGC Matrix²

Glass SHGC ³	Overall Glass U-Factor ⁴
0.75	0.65
0.70	0.61
0.65	0.57
0.60	0.53
0.55	0.48
0.50	0.44
0.45	0.40
0.40	0.35
0.35	0.31
0.30	0.27
0.25	0.23
0.20	0.18
0.15	0.14
0.10	0.10
0.05	0.05

Visible Transmittance²

Glass VT ³	Overall VT ⁴
0.75	0.64
0.70	0.60
0.65	0.56
0.60	0.51
0.55	0.47
0.50	0.43
0.45	0.39
0.40	0.34
0.35	0.30
0.30	0.26
0.25	0.21
0.20	0.17
0.15	0.13
0.10	0.09
0.05	0.04

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.

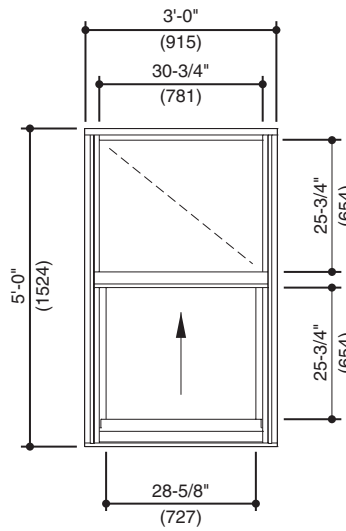
3. Glass properties are based on center of glass values and are obtained from your glass supplier.

4. Overall U-Factor, SHGC, and VT Matrices are based on the standard NFRC specimen size of 1200mm wide by 1500mm high (47-1/4" by 59-1/16").

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.
© Kawneer Company, Inc., 2014

Generic Project Specific U-factor Example Calculation
 (Percent of Glass will vary on specific products depending on sitelines)



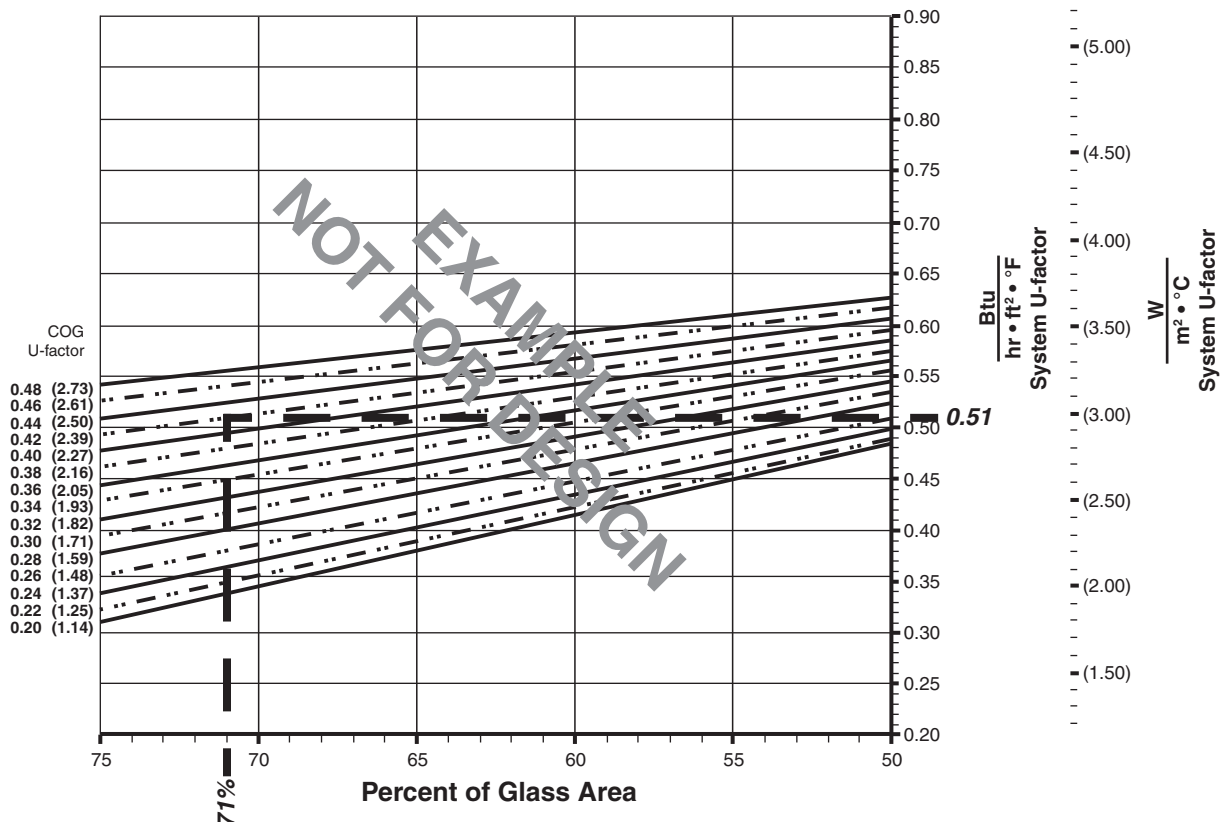
Example Glass U-Factor = 0.42 Btu/hr • ft² • °F

Total Daylight Opening = (30-3/4" • 25-3/4") + (28-5/8" • 25-3/4") = 10.62 ft²

Total Projected Area = 3'-0" • 5'-0" = 15 ft²

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)100
 = (10.62 ÷ 15)100 = 71%

System U-factor vs Percent of Glass Area



Based on 71% glass and center of glass (COG) U-factor of 0.42
 System U-factor is equal to 0.51 Btu/hr • ft² • °F

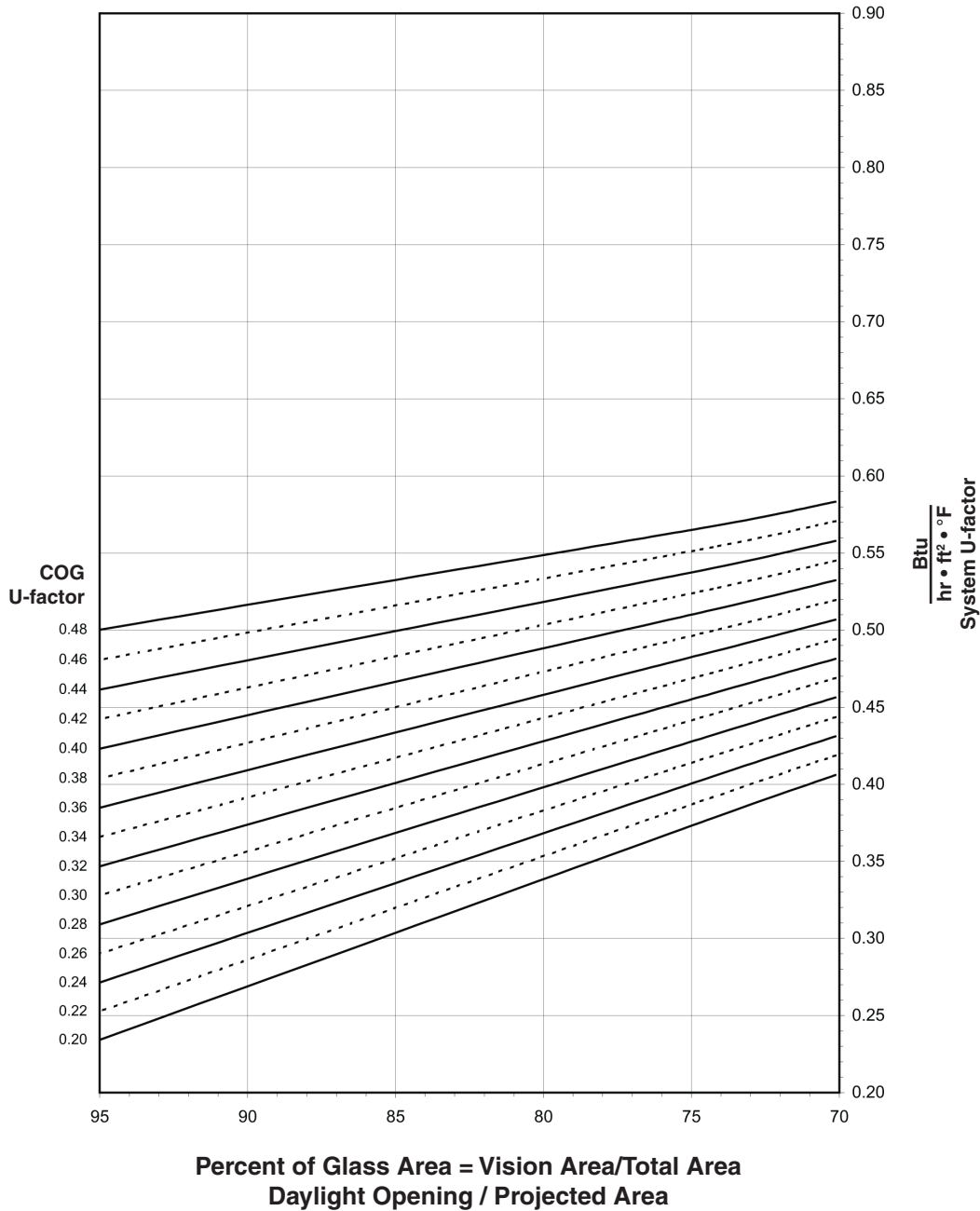
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
 © Kawneer Company, Inc., 2014

AA™3350 IsoPort™ SINGLE HUNG WINDOW

Note:
 Values in parentheses are metric.
 COG = Center of Glass.
 Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area



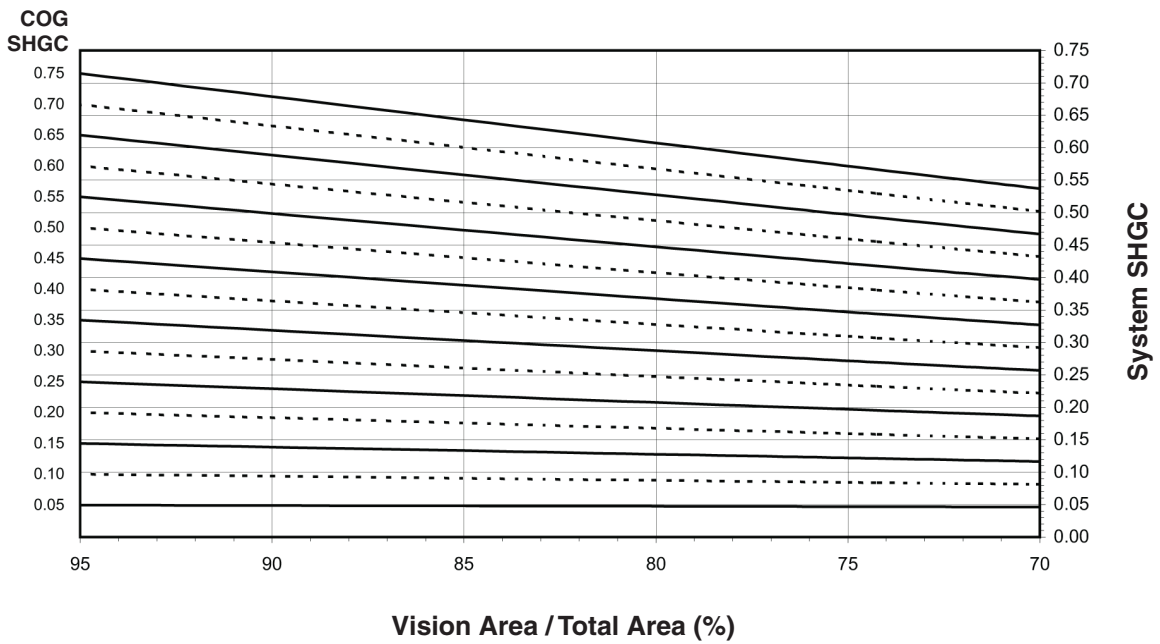
Notes for System U-factor, SHGC and VT charts:
 For glass values that are not listed, linear interpolation is permitted.
 Glass properties are based on center of glass values and are obtained from your glass supplier.

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.

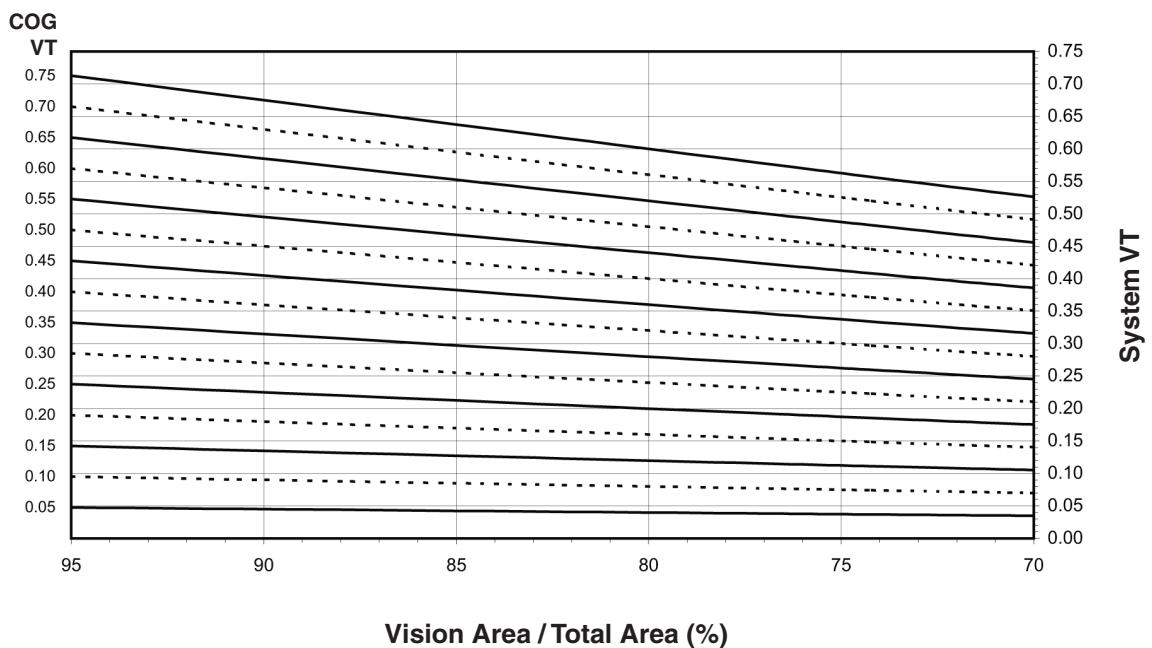
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
 © Kawneer Company, Inc., 2014

AA™3350 IsoPort™ SINGLE HUNG WINDOW

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



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.
© Kawneer Company, Inc., 2014

AA™3350 IsoPort™ SINGLE HUNG WINDOW

Thermal Transmittance¹ (BTU/hr • ft² • °F)

	Glass U-Factor ³	Overall U-Factor ⁴
With Aluminum Spacer	0.48	0.57
	0.46	0.55
	0.44	0.54
	0.42	0.53
	0.40	0.51
	0.38	0.50
	0.36	0.49
	0.34	0.47
	0.32	0.46
	0.30	0.45
	0.28	0.43
	0.26	0.42
	0.24	0.40
	0.22	0.39
0.20	0.38	
With Warm Edge Spacer	0.38	0.47
	0.36	0.45
	0.34	0.44
	0.32	0.42
	0.30	0.41
	0.28	0.40
	0.26	0.39
	0.24	0.37
	0.22	0.35
0.20	0.34	

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.
© Kawneer Company, Inc., 2014

AA™3350 IsoPort™ SINGLE HUNG WINDOW

SHGC Matrix ²

Glass SHGC ³	Overall Glass U-Factor ⁴
0.75	0.57
0.70	0.53
0.65	0.49
0.60	0.46
0.55	0.42
0.50	0.38
0.45	0.34
0.40	0.31
0.35	0.27
0.30	0.23
0.25	0.20
0.20	0.16
0.15	0.12
0.10	0.08
0.05	0.05

Visible Transmittance ²

Glass VT ³	Overall VT ⁴
0.75	0.56
0.70	0.52
0.65	0.48
0.60	0.45
0.55	0.41
0.50	0.37
0.45	0.33
0.40	0.30
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.07
0.05	0.04

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

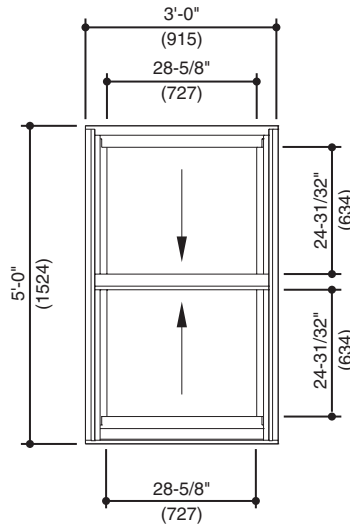
1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matrices are based on the standard NFRC specimen size of 1200mm wide by 1500mm high (47-1/4" by 59-1/16").

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.

© Kawneer Company, Inc., 2014

Generic Project Specific U-factor Example Calculation
 (Percent of Glass will vary on specific products depending on siltelines)



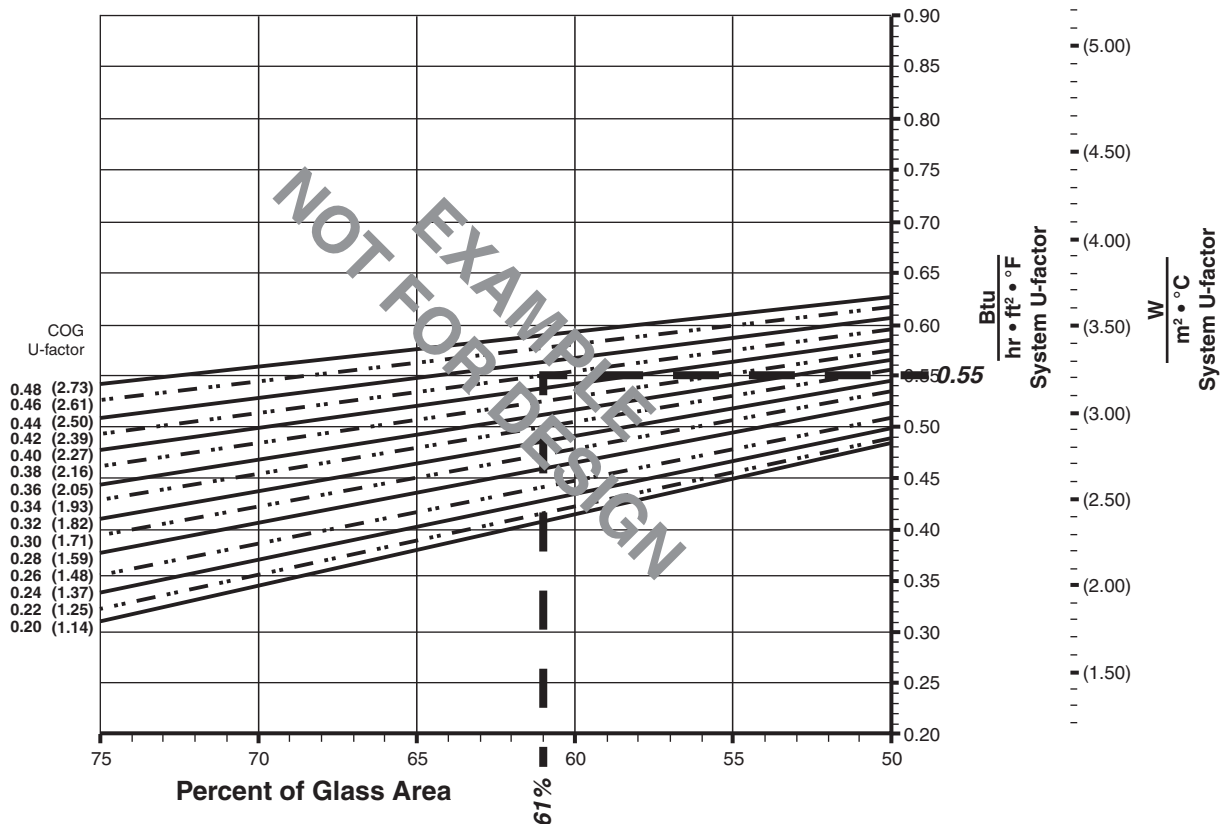
Example Glass U-Factor = 0.42 Btu/hr • ft² • °F

Total Daylight Opening = (28-5/8" • 24-31/32") + (28-5/8" • 24-31/32") = 9.21 ft²

Total Projected Area = 3'-0" • 5'-0" = 15 ft²

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)100
 = (9.21 ÷ 15)100 = 61%

System U-factor vs Percent of Glass Area



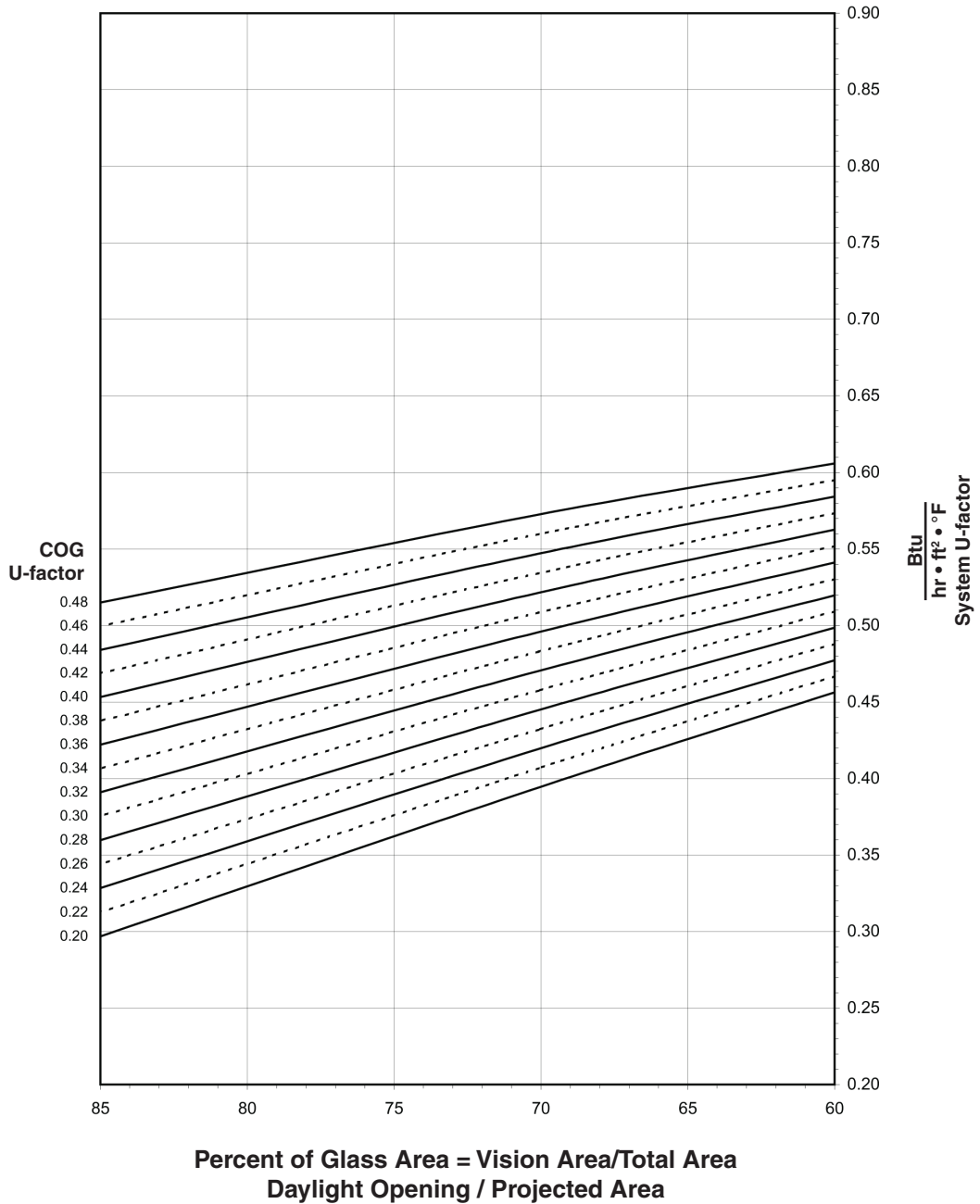
Based on 61% glass and center of glass (COG) U-factor of 0.42
 System U-factor is equal to 0.55 Btu/hr • ft² • °F

AA™3350 IsoPort™ DOUBLE HUNG WINDOW

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:

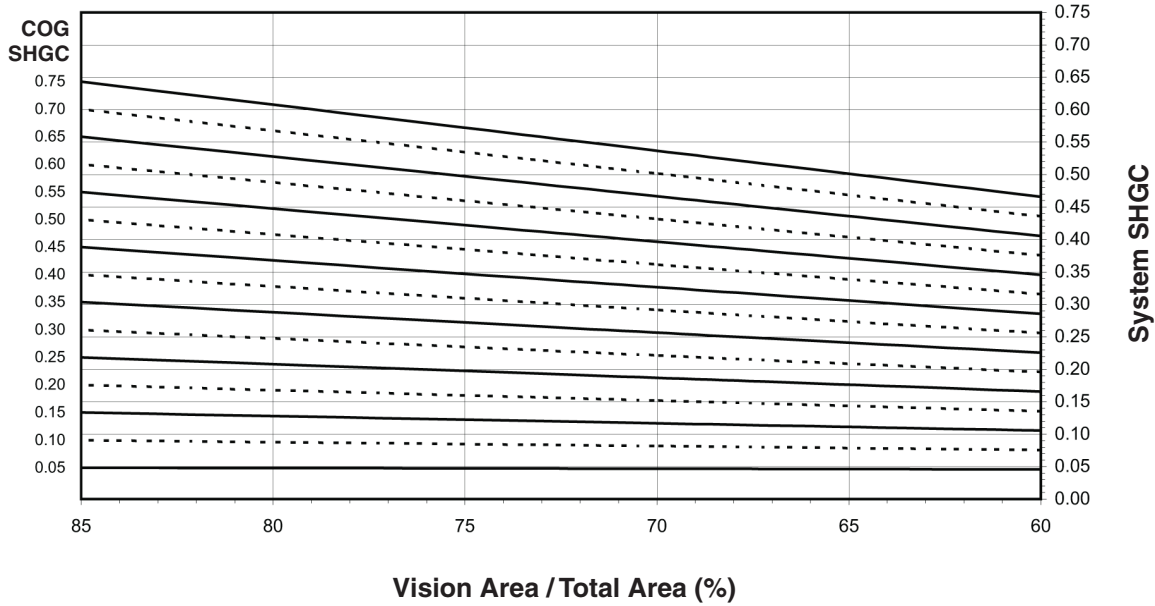
For glass values that are not listed, linear interpolation is permitted.
 Glass properties are based on center of glass values and are obtained from your glass supplier.

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.

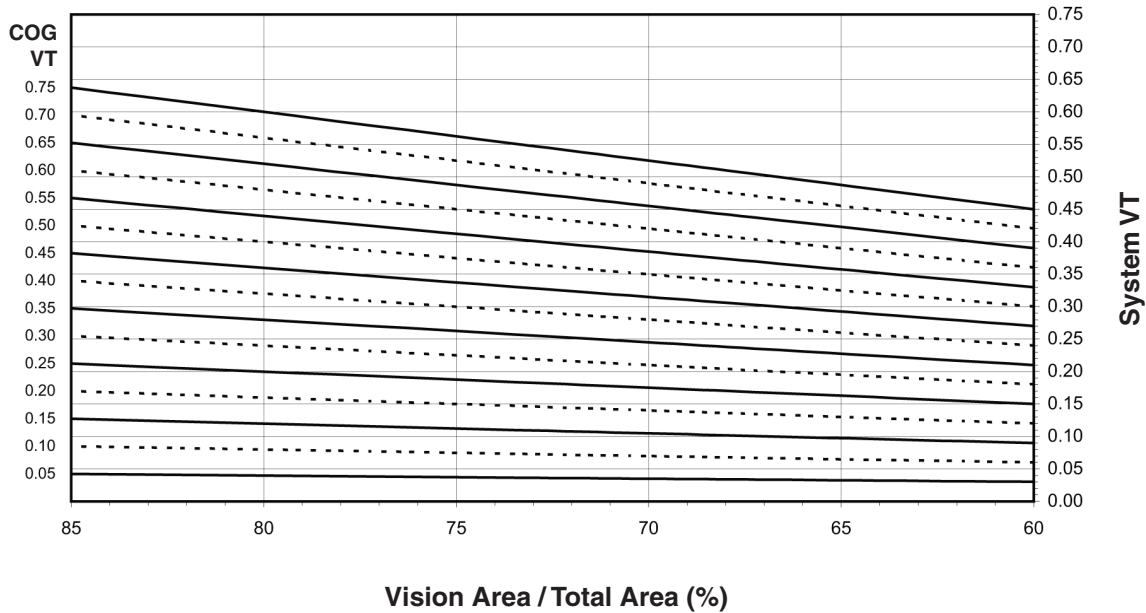
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
 © Kawneer Company, Inc., 2014

AA™3350 IsoPort™ DOUBLE HUNG WINDOW

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



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.
© Kawneer Company, Inc., 2014

AA™3350 IsoPort™ DOUBLE HUNG WINDOW

Thermal Transmittance¹ (BTU/hr • ft² • °F)

	Glass U-Factor³	Overall U-Factor⁴
With Aluminum Spacer	0.48	0.57
	0.46	0.56
	0.44	0.55
	0.42	0.53
	0.40	0.52
	0.38	0.51
	0.36	0.50
	0.34	0.48
	0.32	0.47
	0.30	0.46
	0.28	0.44
	0.26	0.43
	0.24	0.42
	0.22	0.41
0.20	0.39	
With Warm Edge Spacer	0.38	0.48
	0.36	0.46
	0.34	0.45
	0.32	0.44
	0.30	0.42
	0.28	0.41
	0.26	0.40
	0.24	0.38
	0.22	0.37
0.20	0.36	

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.
© Kawneer Company, Inc., 2014

AA™3350 IsoPort™ DOUBLE HUNG WINDOW

SHGC Matrix ²

Glass SHGC ³	Overall Glass U-Factor ⁴
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.39
0.45	0.33
0.40	0.29
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.12
0.10	0.08
0.05	0.05

Visible Transmittance ²

Glass VT ³	Overall VT ⁴
0.75	0.53
0.70	0.49
0.65	0.46
0.60	0.42
0.55	0.39
0.50	0.35
0.45	0.32
0.40	0.28
0.35	0.25
0.30	0.21
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
0.05	0.04

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.

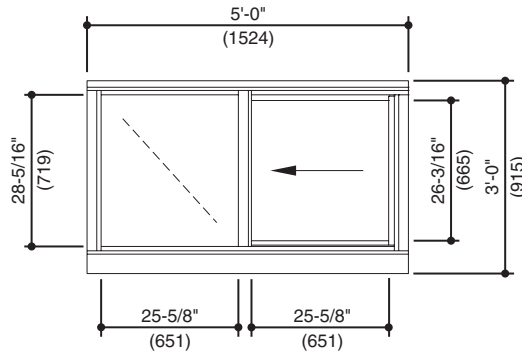
3. Glass properties are based on center of glass values and are obtained from your glass supplier.

4. Overall U-Factor, SHGC, and VT Matrices are based on the standard NFRC specimen size of 1200mm wide by 1500mm high (47-1/4" by 59-1/16").

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.
© Kawneer Company, Inc., 2014

Generic Project Specific U-factor Example Calculation
 (Percent of Glass will vary on specific products depending on sitelines)



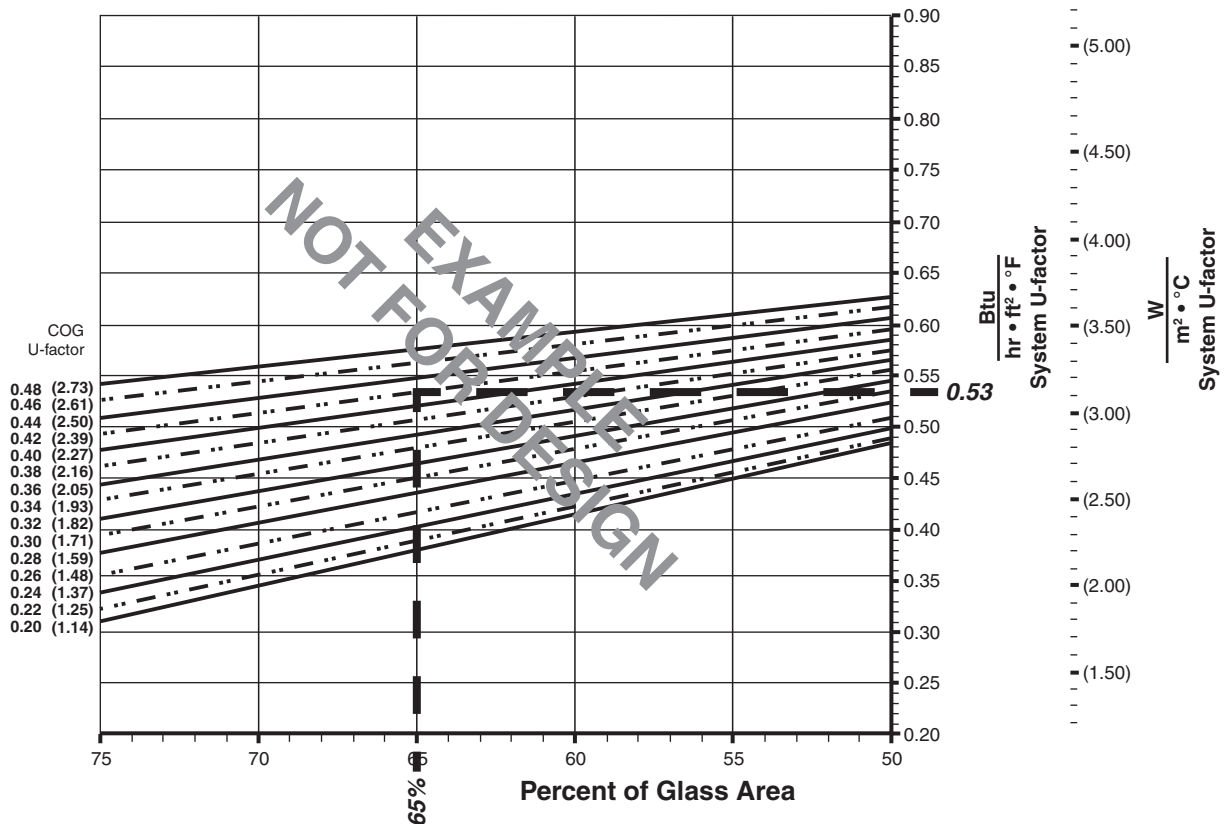
Example Glass U-Factor = 0.42 Btu/hr • ft² • °F

Total Daylight Opening = (25-5/8" • 28-5/16") + (25-5/8" • 26-3/16") = 9.70 ft²

Total Projected Area = 3'-0" • 5'-0" = 15 ft²

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)100
 = (9.70 ÷ 15)100 = 65%

System U-factor vs Percent of Glass Area



Based on 65% glass and center of glass (COG) U-factor of 0.42
 System U-factor is equal to 0.53 Btu/hr • ft² • °F

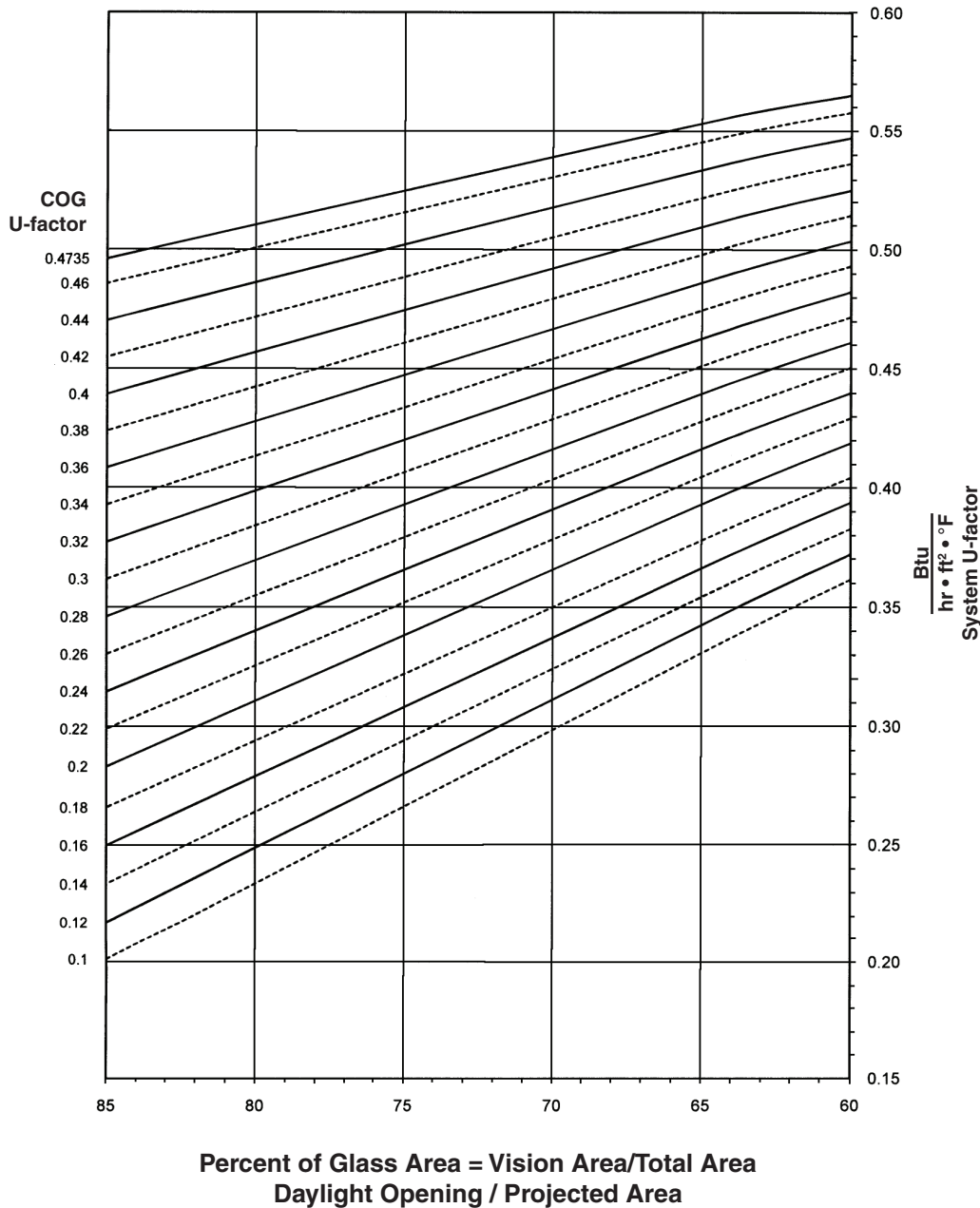
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
 © Kawneer Company, Inc., 2014

AA™3350 IsoPort™ OX HORIZONTAL SLIDER WINDOW

Note:
 Values in parentheses are metric.
 COG = Center of Glass.
 Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area



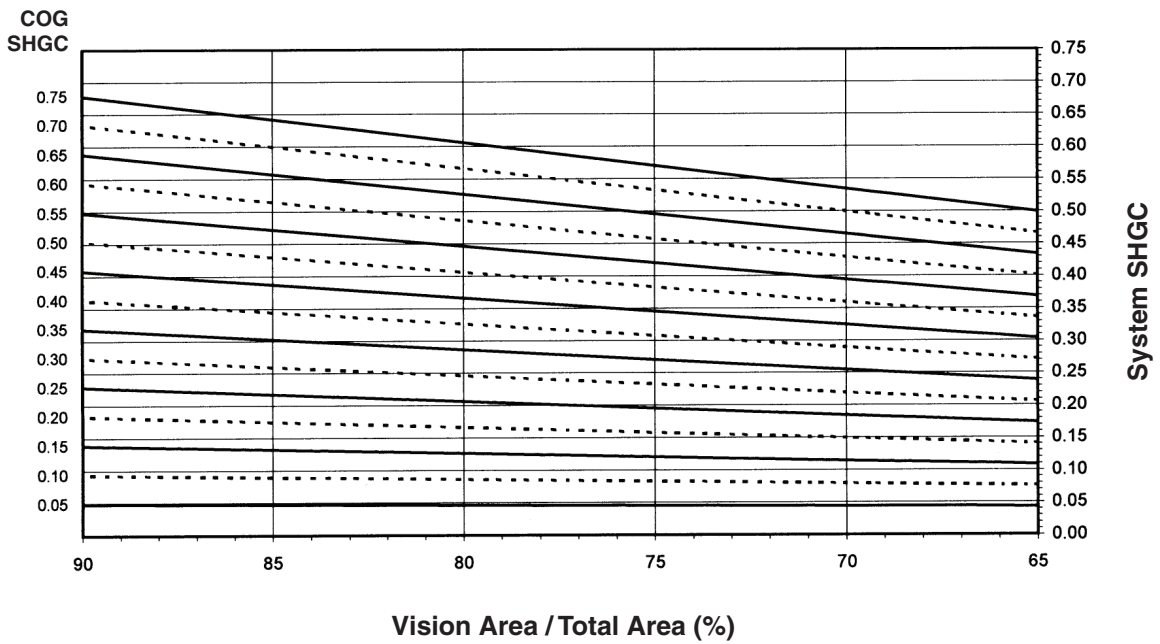
Notes for System U-factor, SHGC and VT charts:
 For glass values that are not listed, linear interpolation is permitted.
 Glass properties are based on center of glass values and are obtained from your glass supplier.

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.

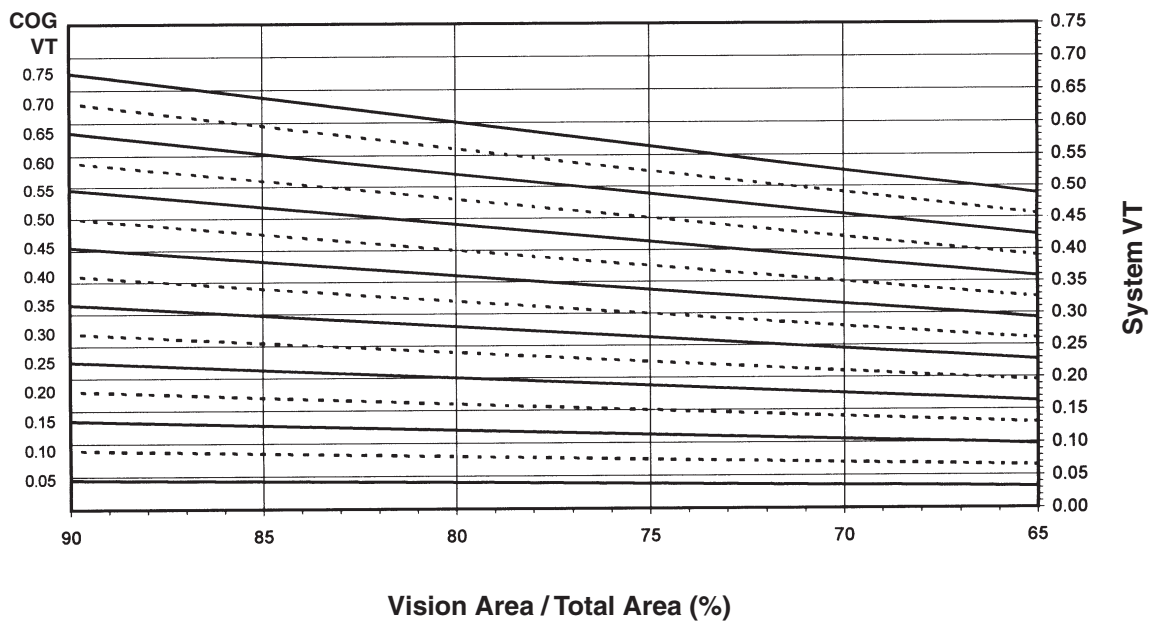
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
 © Kawneer Company, Inc., 2014

AA™3350 IsoPort™ OX HORIZONTAL SLIDER WINDOW

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



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.
© Kawneer Company, Inc., 2014

AA™3350 IsoPort™ OX HORIZONTAL SLIDER WINDOW

Thermal Transmittance¹ (BTU/hr • ft² • °F)

With Aluminum Spacer	Glass U-Factor ³	Overall U-Factor ⁴
	0.47	0.54
	0.46	0.53
	0.44	0.52
	0.42	0.50
	0.40	0.49
	0.38	0.48
	0.36	0.47
	0.34	0.46
	0.32	0.44
	0.30	0.43
	0.28	0.42
	0.26	0.41
	0.24	0.39
	0.22	0.38
	0.20	0.37
	0.18	0.35
	0.16	0.34
	0.14	0.33
	0.12	0.32
0.10	0.30	

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.
© Kawneer Company, Inc., 2014

AA™3350 IsoPort™ OX HORIZONTAL SLIDER WINDOW

SHGC Matrix ²

Glass SHGC ³	Overall Glass U-Factor ⁴
0.75	0.53
0.70	0.50
0.65	0.46
0.60	0.43
0.55	0.39
0.50	0.36
0.45	0.32
0.40	0.29
0.35	0.25
0.30	0.22
0.25	0.18
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

Visible Transmittance ²

Glass VT ³	Overall VT ⁴
0.75	0.52
0.70	0.49
0.65	0.45
0.60	0.42
0.55	0.38
0.50	0.35
0.45	0.31
0.40	0.28
0.35	0.24
0.30	0.21
0.25	0.17
0.20	0.14
0.15	0.10
0.10	0.07
0.05	0.03

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 1500mm wide by 1200mm high (59-1/16" by 47-1/4").

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.

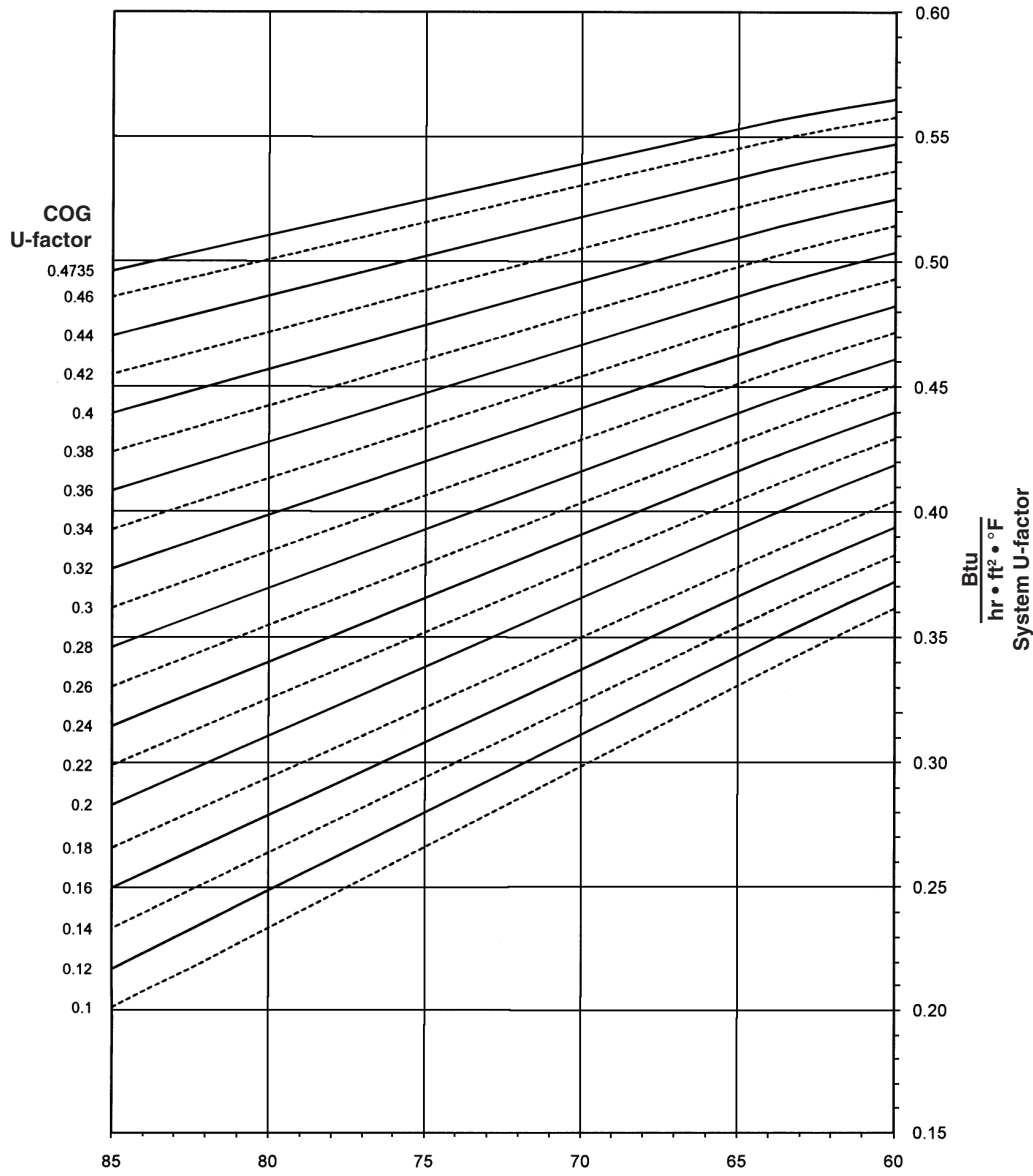
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

© Kawneer Company, Inc., 2014

AA™3350 IsoPort™ XX HORIZONTAL SLIDER WINDOW

Note:
 Values in parentheses are metric.
 COG = Center of Glass.
 Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area



**Percent of Glass Area = Vision Area/Total Area
 Daylight Opening / Projected Area**

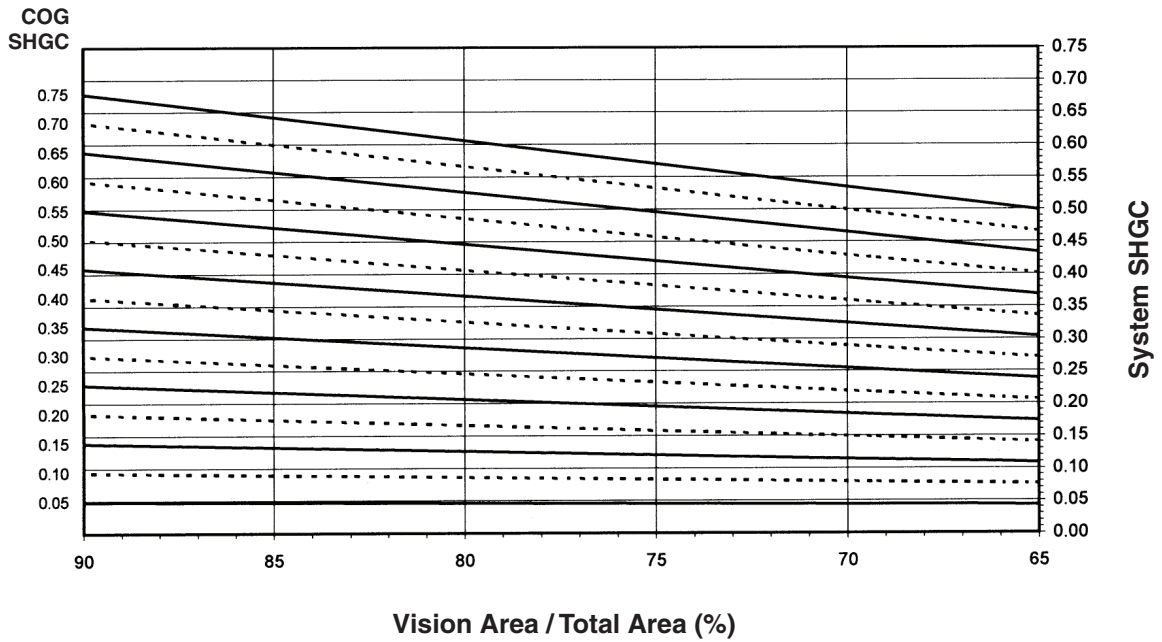
Notes for System U-factor, SHGC and VT charts:
 For glass values that are not listed, linear interpolation is permitted.
 Glass properties are based on center of glass values and are obtained from your glass supplier.

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.

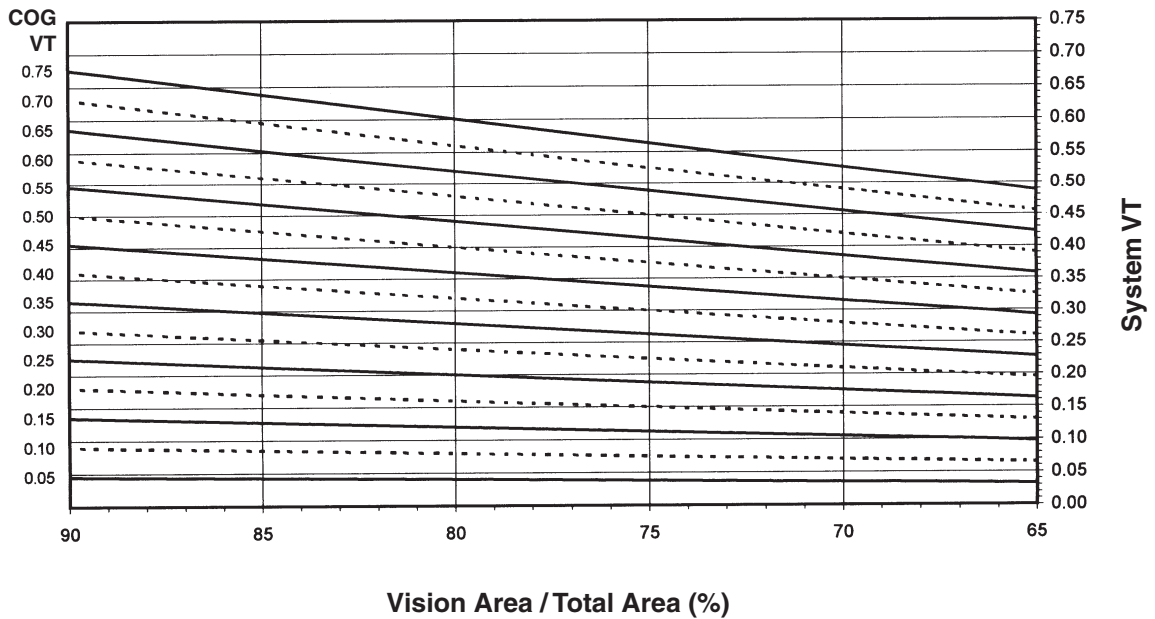
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
 © Kawneer Company, Inc., 2014

AA™3350 IsoPort™ XX HORIZONTAL SLIDER WINDOW

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



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.
© Kawneer Company, Inc., 2014

AA™3350 IsoPort™ XX HORIZONTAL SLIDER WINDOW

Thermal Transmittance¹ (BTU/hr • ft² • °F)

With Aluminum Spacer	Glass U-Factor ³	Overall U-Factor ⁴
	0.47	0.56
	0.46	0.55
	0.44	0.54
	0.42	0.52
	0.40	0.51
	0.38	0.50
	0.36	0.49
	0.34	0.48
	0.32	0.47
	0.30	0.45
	0.28	0.44
	0.26	0.43
	0.24	0.42
	0.22	0.41
	0.20	0.40
	0.18	0.38
	0.16	0.37
	0.14	0.36
	0.12	0.35
0.10	0.34	

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.
© Kawneer Company, Inc., 2014

AA™3350 IsoPort™ XX HORIZONTAL SLIDER WINDOW

SHGC Matrix ²

Glass SHGC ³	Overall Glass U-Factor ⁴
0.75	0.51
0.70	0.47
0.65	0.44
0.60	0.41
0.55	0.37
0.50	0.34
0.45	0.31
0.40	0.28
0.35	0.24
0.30	0.21
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.08
0.05	0.04

Visible Transmittance ²

Glass VT ³	Overall VT ⁴
0.75	0.50
0.70	0.46
0.65	0.43
0.60	0.40
0.55	0.36
0.50	0.33
0.45	0.30
0.40	0.26
0.35	0.23
0.30	0.20
0.25	0.17
0.20	0.13
0.15	0.10
0.10	0.07
0.05	0.03

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 1500mm wide by 1200mm high (59-1/16" by 47-1/4").

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.
© Kawneer Company, Inc., 2014

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.
© Kawneer Company, Inc., 2014