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## **Entrances & Framing**





## **Entrances**

Kawneer offers a comprehensive line of architectural aluminum building products and systems for commercial construction – entrances, framing systems, windows and curtain wall systems. For over a century, Kawneer has been recognized as an innovator. Since that time, we've balanced experience with change and ongoing improvement. We are dedicated to providing the tools our customers need to succeed. Welded door corners, patented thermal breaks, and design and fabrication flexibility are just a few examples of how we have responded to customer needs.

#### **Hurricane Resistant Products**

Kawneer offers single-source responsibility with a comprehensive group of independently tested, hurricane resistant products. Many have received Notices of Acceptance (NOAs) issued by Miami-Dade County BCCO and Florida State Approvals. Product testing continues. For more information, visit our website at Kawneer.com.

#### **ADA Accessibility Guidelines**

Kawneer entrances include options such as hardware, door controls and threshold heights that satisfy the guidelines of the Americans with Disabilities Act (ADA). Entrances are easily configured to meet ADA traffic control guidelines, and state and local building accessibility codes.

#### Kawneer's Limited Lifetime Welded Door Corner Warranty

Every door with Dual Moment welded corner joinery comes with a Limited Lifetime Warranty, including 190/350/500 Standard Entrances, 350 Heavy Wall<sup>™</sup>, 350/500 Tuffline<sup>®</sup>, Entara<sup>®</sup>, Flushline<sup>®</sup> and 260/360/560 Insuclad<sup>®</sup>. Warranty is good for the life of the door under normal use operation, is transferable from building owner to building owner and is in addition to the standard two-year warranty covering each Kawneer door.

#### 190/350/500 Standard Entrances

### A single-source, easily adaptable package of door, door frame and hardware

190/350 Entrances have been large missile hurricane impact/cycle tested and have been approved for use in Florida for both high-velocity hurricane zones and non-impact locations.

**190 Narrow Stile** – engineered for moderate traffic | Slim look 2-1/8" vertical stile, 2-1/4" top and 3-7/8" bottom rails

**350 Medium Stile** – provides extra strength for high traffic | Vertical stiles and top rail 3-1/2", bottom rail 6-1/2"

**500 Wide Stile** – monumental visual statements for heaviest traffic | Vertical stiles and top rail 5", bottom rail 6-1/2"

All three entrances feature Dual Moment welded corner construction with sigma deep penetration and fillet welds, plus corner mechanical fastenings | Door operation is single/double acting with maximum security locks or Touch Bar Panics standard | Architect's Classic 1" round bent bar push/pull hardware in various finishes and sizes | Infills range from 1/4" to 1" | Door frames feature Sealair® bulb polymeric weather stripping



190 Narrow Stile Entrance (with high bottom rail) and Trifab® VG (VersaGlaze®) 451T Framing Weeks Automotive/Danbury Audi, Danbury Connecticut Architect: Austin Patterson Disston Architects, LLC, Southport, Connecticut Glazing Contractor: Advanced Performance Glass, Inc., South Windsor, Connecticut



350 Medium Stile Entrance DFW International Airport Terminal D, Dallas, Texas Architect: HKS, Inc., in association with HNTB & Corgan Associates, Inc., Dallas, Texas Glazing Contractor: Win-Con Enterprises, Inc., New Braunfels, Texas



500 Wide Stile Entrance DeSoto Civic Center, Southaven, Mississippi Architect: Johnson Bailey Henderson McNeel (JBHM) PA, Southaven, Mississippi Glazing Contractor: American Glass Company Inc., Columbus, Mississippi









350 Heavy Wall<sup>™</sup> Entrances Kohl Center, University of Wisconsin, Madison, Wisconsin Architect: HOK Sport Facilities Group, Kansas City, Missouri Glazing Contractor: Lurie Glass Company, Milwaukee, Wisconsin





#### 500 Tuffline® Entrances Ford Field, Detroit, Michigan Architect/Engineer of Record: SmithGroup, Detroit, Michigan

Architects: Kaplan, McLaughlin, Diaz Architects, San Francisco, California; Hamilton Anderson Associates, Inc., Detroit, Michigan; Rossetti Associates

Architects, Birmingham, Michigan Glazing Contractor: Universal Glass & Metals, Inc., Detroit, Michigan



Entara® Entrances University of Alaska Museum of the North, Fairbanks, Alaska Architects: GDM Inc., Anchorage, Alaska; Hammel, Green and Abrahamson, Inc. (HGA), Minneapolis, Minnesota Glazing Contractor: Commercial Contractors, Inc., Anchorage, Alaska

#### 2000T Terrace Door

Designed for use in condominiums, lofts, apartments and hotels

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Single or pair – outswing or inswing | 3-3/4" wide door rails, 2-1/4" deep | Thermally broken door and frame | Tested per NASF 1, ANSI/AAMA/NWWDA 101/I.S.2-97 rated as HGD-C40/HC40 | Thermal tests per CAN/CSA A-440-00, AAMA 1503-98 and NFRC 100-97 | Impact and cycle tested | Stainless steel multi-point locks and options | Lever handle options and finishes | True or applied muntins and horizontals | Accommodates 1/4" to 1-1/8" infills | Factory glazed | Kawneer standard and custom finishes and colors | Two-color option

#### 350 Heavy Wall<sup>™</sup> Entrances

Designed for durability in heavy traffic areas

Medium Stile Door designed for high-traffic applications such as schools, universities and office buildings | Door and frame have 3/16" walls throughout for added durability and strength | Door is 2" deep | Vertical stiles and top rails 3-1/2" and bottom rail 6-1/2" | Accepts glazing infills from 1/4" to 1" | Incorporates Kawneer's standard Dual Moment welded corner | Blast tested per ASTM F1642

#### 350/500 Tuffline® Entrances

Heavy duty and engineered to withstand high traffic in schools, universities, malls and supermarkets Constructed for unequaled strength with 3/16" walls throughout door and frame | 3-1/2" wide stiles and 3-3/8" top rail on 350 door | 5" wide stiles and top rail on 500 door | 2" deep door sections and 6-3/4" bottom rail | Door heights range from 7' to 9'; widths from 3' to 4' | Door frame face width is 2", depth is 4-1/2" | Accepts glazing infills of 1/4" to 1" | Complete package of door, door frame and hardware | Kawneer's Dual Moment welded corner construction resists both the lever arm and torsion forces all doors experience

#### Entara® and Entara® XD Entrances

A complete package of door, frame and hardware designed for high-abuse traffic areas and protection from forced entry or vandalism

Three stile widths: 3", 4-1/2" and 6" | Basic door stiles and rails for both entrances measure 2-1/4" in depth, with 3/16" wall thickness for greater strength and rigidity | Entara® frames are 1-3/4" x 4-1/2", with 1/4" thick side walls for direct attachment of high-stress hardware | Entara® and Entara® XD accept glazing infills from 1/4" to 1" | Center pivot, offset pivot or butt hinges | Dual Moment welded corner construction | Fully integrated frames are available with or without transoms | Entara® offers multiple design options | Entara® XD is a single-acting, outswing door and frame designed for maximum protection from forced entry and vandalism | The Kawneer Panic Guard® mechanism is optional





#### Flushline<sup>®</sup> Entrances

# Single acting and providing durability with design flexibility for applications such as schools and manufacturing facilities

Offer a flush appearance with a face sheet of fiberglassreinforced polyester (FRP) or aluminum in a variety of colors and captured on four sides by integral, extruded reglets I Heights range from less than 7' to a maximum of 12' I Widths vary from approximately 3' to 4' I Features Kawneer Dual Moment welded corner construction I Additional strength is achieved by the polyurethane foam core that interlocks with the aluminum and creates an extremely stable, durable entrance door I Paneline® Panic Device with minimal 1-1/8" projection is available I Door Bision Lites are available in aluminum or gasket frames with 1/4" or 1" infill

#### 260/360/560 Insuclad® Thermal Entrances

## Narrow, medium and wide stile, providing thermal efficiency for the entire building facade

Both the door and frame are thermally broken I Complete package of door, fully integrated door frame (with or without transoms) and integrated hardware | Stile face widths of 2-1/8", 3-1/2" and 5" | Door heights range from approximately 7' to 8' and widths from 3' to 3-1/2' | Dual Moment welded corner construction | Engineered for use with Kawneer's Trifab® VG 451T Framing Systems and 1600 Wall Systems® | Entrance is single acting and mounted on offset pivots, butt or continuous geared hinges | Accepts glazing infills of 1"

#### Paneline<sup>®</sup> and Paneline<sup>®</sup> EL Panic Device

### The only clues that this is a panic device are the "push" indication and unlocking action

Paneline<sup>®</sup> Panic Devices have been large missile hurricane impact and cycle tested.

Pressure on the push panel quickly releases the door for emergency egress ↓ Offers improved safety since Paneline® cannot be chained or blocked ↓ Available with 190/350/500 Standard Aluminum Entrances, 350 Heavy Wall<sup>™</sup>, 350/500 Tuffline® and Flushline® Entrances ↓ Can be used with the Panic Guard® retractable security astragal on 190/350/500 Standard Entrances ↓ Optional matching dummy panels are available for vestibule doors and fixed panels area available for side lites ↓ Available with electric option for access control

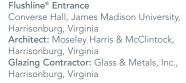
#### Panic Guard<sup>®</sup> Security Exit

The full-time emergency exit with 24-hour security Patented Panic Guard® resists probing between meeting stiles by insertion of a full-lenth, movable astragal bar that locks into place to secure the entrance I Astragal bar retracts into the meeting stile to provide quick, safe egress I Available with 190/350/500 Standard Entrances, 350 Heavy Wall™, 350/500 Tuffline®, Entara® and Entara® XD Entrances





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top to bottom: EPT (Electric Power Transfer) mounted to door in retrofit application; Paneline® EL Concealed Rod Push Panel; Paneline® EL Outside Control Switch





Panic Guard<sup>®</sup> Entrances

Panic Guard® resists entry through the "security gap" between pairs of doors. When closed, a retracting aluminum astragal bar at the meeting stiles interlocks for the full door height. In addition, a continuous threshold stop and blade stops at jambs and head reduce the possibility of inserting hook wires under or around the doors. Guarded lock cylinders provide added security.



The Grand America Hotel, Salt Lake City, Utah

Glazing Contractor: Steel Encounters, Inc.,

Associates, Inc., Atlanta, Georgia

Architect: Smallwood, Reynolds, Stewart, Stewart &

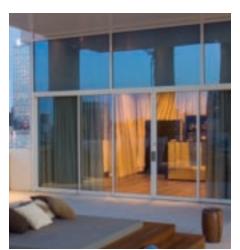
990 Sliding Door

Salt Lake City, Utah



HPS®





1010 Sliding Mall Front (modified) W Dallas Victory Hotel & Residence, Dallas, Texas Architect: HKS, Inc., Dallas Texas Customer: Win-Con Enterprises, Inc., New Braunfels, Texas



AA<sup>™</sup>3900 Thermal Sliding Door Glass House, Denver, Colorado Architect: The Preston Partnership, LLC, Atlanta, Georgia Glazing Contractor: El Paso Glass – Denver, Inc., Aurora, Colorado

#### HPS<sup>®</sup> and HPX Monumental Sliding Doors High performance and designed to meet extreme conditions

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HPS<sup>®</sup> and HPX Sliding Doors have been hurricane impact and cycle tested.

HPS<sup>®</sup> Sliding Doors are available in four different performance ranges for low- and medium-rise applications I Tested for Performance Class and Grade of HC60, HC80, HC100 and HC120 I Small missile impact and cycle tested

HPX Sliding Doors are designed for high-rise coastal applications requiring greater wind load and superior water performance | Tested for a Performance Class and Grade of HC160 | Large and small missile impact and cycle tested

#### 990 Sliding Door

Engineered for rain-battered high- and low-rise applications Features a stainless steel tandem-roller assembly to assure trouble-free, smooth operation and positive weather seals on all sides | The manual sliding 990 is a complete system of door, door frame and hardware, available in four configurations | Stile face width is 2-1/2" and the door accepts infills from 3/16" to 1" | Withstands water infiltration at 10 PSF and meets or exceeds all criteria established by AAMA for ratings of C30, HC40 and HC60

#### Sliding Mall Fronts 1010/1010C, 1040, 1070

For single and multi-track interior and exterior applications Available with both fixed and operable panels

The 1010/1010C Sliding Mall Front has a low-profile multitrack that can be recessed or surface applied | Interior applications only | Accepts infills from 1/4" to 1"

The **1040 Sliding Mall Front** is a single-track unit with three stacking options: parallel staggered, parallel even and 90 degree | Accepts 1/4" infills

The **1070 Sliding Mall Front** incorporates swing entrances on a single track with parallel stacking for heavy-duty interior or exterior use | When closed, the 1070 looks like a 1-3/4" x 4-1/2" flush glazed framing system | Accepts 1/4" infills

#### **StadiaView®**

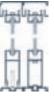
Sports facility single hung windows for press boxes and stadium suites

Unobstructed views whether open or closed | Easy operation | Narrow sightlines | Single hung function | Optional infill thicknesses | Secure locking hardware

#### AA<sup>™</sup>3900 Thermal Sliding Door

#### Styling that appeals, performance that delivers

Improved thermal performance developed specifically for climates subject to temperature extremes | Contemporary styling and corrosion-resistant hardware | Provides ease of operation, plus safety and security for building occupants | Ideal for condominiums, apartments, hotels – anywhere comfort is paramount



1010

## Framing

#### Trifab<sup>®</sup> 400 Framing System

Proven solution for storefront and low-rise applications 1-3/4" x 4" frame members and accepts 1/8", 1/4" and 3/8" infills | May be flush glazed from the inside or outside | Choice of screw spline, shear block or stick fabrication

#### Trifab® VG (VersaGlaze®) 450, Trifab® VG 451 and Trifab® VG 451T Framing Systems

Built on the proven and successful Trifab® platform, Trifab® VG offers design versatility with unmatched fabrication flexibility

Trifab<sup>®</sup> VG 450: 1-3/4" x 4-1/2" frame members accept 1/8", 1/4" and 3/8" infills

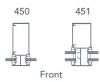
Trifab<sup>®</sup> VG 451 & 451T: 2" x 4-1/2" frame members accept infills up to 1-1/8"

Choice of front, center, back or multi-plane glass applications | Choice of screw spline, shear block, stick or punched opening fabrication | Patented High Performace (HP) Flashing and HP Interlock Clip are engineered to eliminate the perimeter sill fasteners and their associated blind seals, and are compatible with all glass planes | Flush glazed from either the inside or outside | Front Stick fabrication option for Trifab® 451 and 451T adds two-color options in both captured and SSG/Weatherseal configurations | Weatherseal is not silicone, but an ABS/Geloy<sup>™</sup> extrusion offering a consistent sightline of 15/16" at every glass joint | Weatherseal allows complete inside glazing with no scaffolding or swing stages to run typical exterior silicone weatherseal | Patented IsoLock<sup>®</sup> Thermal Break option (Trifab® VG 451T), which is designed to AAMA TIR-A8 and tested to AAMA 505 | U-factors, CRF values and STC ratings for Trifab® VG 451T vary, depending upon glass plane. Project-specific U-factors are easily calculated using technical charts (see Kawneer.com or Architectural Manual)

#### Storefront GLASSvent<sup>™</sup> Visually Frameless Ventilator For use with all storefront systems

Eliminates added exterior sightline of typical ventilator when installed into a storefront framing system | Available as a Project-Out or Outswing Casement Window | Retrofit capability | Accepts 1/4" and 1" glazing infill | Factory glazing | Meets or exceeds performance standards of NAFS 1, ANSI/AAMA/NWWDA 101/I.S.2-97 | For use with Trifab<sup>®</sup> 400, Trifab<sup>®</sup> VG 450, 451 and 451T center and front glazed, EnCORE<sup>®</sup> and Seamless Mullion<sup>™</sup> 400T





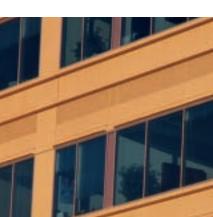












Trifab<sup>®</sup> VG (VersaGlaze<sup>®</sup>) 451T (Thermal) Framing

Glazing Contractor: Klein Dickert Milwaukee, Inc.,

System, Captured and Weatherseal Mullions

Squires III, Pewaukee, Wisconsin

Milwaukee, Wisconsin

Pewaukee, Wisconsin

Architect: Zimmerman Design Group,

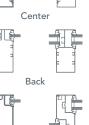
Trifab® VG (VersaGlaze®) 451T Front Glazed INVESCO Corporate Building, Denver, Colorado Architect: Gensler, Denver, Colorado Glazing Contractor: Elward Construction Co., Lakewood, Colorado



Center Glazed Trifab® VG 451T (Thermal) Talbots Corporate Headquarters, Hingham, Massachusetts Architect: Symmes Maini & McKee Associates, Cambridge, Massachusetts Glazing Contractor: R & R Window Contractors, Inc., Easthampton, Massachusetts











Weatherseal



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#### EnCORE® Thermal Framing System

# The two-piece, face-and-gutter system that offers thermal economy with numerous design options

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Offers a broad selection of system depths and a 1-3/4" sightline | Accepts 1/4" and 1" glazing infills and can be quickly adapted to accept other infills in 1/8" increments | Two-piece assembly easily accommodates two-color finish options and curved applications | Glazing plane can be to the exterior or centered in the mullion | Can be structural silicone glazed | Choice of screw spline, shear block or punched opening fabrication | Project-specific U-factors are easily calculated using technical charts (see Kawneer.com or Architectural Manual)

#### IR 500/501 Framing System

### A center glazed storefront framing system for hurricane impact/windborne debris requirements

2-1/2" x 5" frame members accepting 9/16", and 5/8" impact or 1/4" non-impact infills (IR500) | 2-3/4" x 5" frame members accepting 1-5/16" impact or 1" non-impact infills (IR 501) | Flush glazed from the outside, with an interior silicone seal | Screw spline fabrication | Choice of shop or field glazing | Hurricane impact and cycle tested | 350 IR singles or pairs of entrances available with 3-point lock, Touch Bar Panics or Paneline<sup>®</sup> Panics

#### PG 123®

## Ribbon window and multi-lite punched opening system with pre-glaze capability

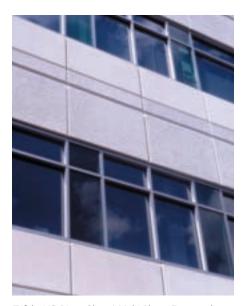
2-1/4" x 6" frame members accept 1" infill with 1/4" adaptors for spandrel applications | Screw spline joinery | Square cuts with no miters or notching, reduces fab time | Can be pre-assembled and pre-glazed under controlled shop conditions, saving time compared to field construction | Pre-glaze units installed from interior, minimizes weather delays and scaffolds/lift equipment | ISOWEB® glass reinforced nylon thermal break provides improved condensation resistance, reduces thermal transmittance and offers dual finish options, allowing different interior and exterior color finishes | Tested to appropriate AAMA, ASTM and CAN/CSA A-440 standards for air, water and structural performance

EnCORE® Thermal Framing System Manitowoc Public Library, Manitowoc, Wisconsin Architect: Engberg Anderson Design, Milwaukee, Wisconsin Glazing Contractor: Sheboygan Glass Company, Inc., Sheboygan, Wisconsin





IR 500 Framing Systems Tarpon Springs Public Safety Building, Tarpon Springs, Florida Architect: Gee & Jenson Engineers Architects Planners Inc., West Palm Beach, Florida Glazing Contractor: Ashe Glass & Mirror, Temple Terrace, Florida



Trifab® VG (VersaGlaze®) Multi-Plane, Front and Rear Glazed Brighton Landing, Brighton, Massachusetts Architect: ADD Inc., Cambridge, Massachusetts Glazing Contractor: Ipswich Bay Glass Company, Inc., Rowley, Massachusetts

## Kawneer Finishes

#### Permanodic<sup>®</sup> Anodized Finishes

Long-lasting, protective coatings resist abrasion, corrosion, UV rays Available in Class I and Class II in seven different choices: Clear Anodized Class I (#14 Clear); Clear Anodized Class II (#17 Clear); Color Anodized Class I (#40 Dark Bronze, #29 Black, #28 Medium Bronze, #26 Light Bronze and #18 Champagne) | All Kawneer Permanodic® Finishes meet AAMA 611

#### **Painted Finishes**

Fluoropolymer Coatings – Enduring color with high performance and durability Available in many standard choices and unlimited custom colors I These include Fluropon®\* and Permadize® finishes, which meet or exceed AAMA 2604 or AAMA 2605

Powder Coatings – Create a "green" element with solvent-free high performance, durability and scratch resistance

Available in 31 standard colors | Interpon<sup>®</sup>\*\* D2000 Advance Powder Coatings, which meet or exceed AAMA 2604 or 2605

\* Fluropon is a registered trademark of The Valspar Corporation

\*\* Interpon is a registered trademark of Akzo Nobel

#### Notice

Laws and Building and Safety Codes governing the design and use of windows, glazed entrance, framing, curtain wall and overhead glazing products vary widely. Kawneer does not control the selection of product configuration, operating hardware or glazing materials, and assumes no responsibility thereof.

Information contained in this catalog is subject to change without notice.

Kawneer Original Designs and Structures are fully protected by U.S. Patents and Patents Pending.

#### Other Products from Kawneer

Curtain Wall & Overhead Glazing 08 44 00/KAW; Windows 08 51 00/KAW in Sweet's.

#### For More Information

Visit our website at Kawneer.com for more detailed information, including the most current CAD libraries and Guide Specifications.



500 Wide Stile Entrance Enclosed by 1070 Sliding Mall Front Park Meadows, Denver, Colorado Architect: Anthony Belluschi Architects, Chicago, Illinois Glazing Contractor: A1 Glass, Inc., Englewood, Colorado



HPS\* Sliding Doors Atlantis Casino & Resort, Paradise Island (Nassau), Bahamas Architect: HKS, Inc., Dallas, Texas Glazing Contractor: Commonwealth Building Supply Ltd., Nassau, Bahamas

Cover photo: **500 Tuffline® Entrances** Fossil Ridge High School, Poudre School District, Ft. Collins, Colorado **Architect:** RB + B Architects, Inc., Ft. Collins, Colorado **Glazing Contractor:** B & W Glass, Inc., Cheyenne, Wyoming



kawneer.com 770 . 449 . 5555

