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Other brochures available on request from Kawneer are:

- Architectural Aluminium Systems Finishes
- Entrance Doors and Framing Systems
- Curtain Wall Systems
- AA®130 Brise Soleil System  
Solar Shading for Reduced Solar Heat Gain
- AA®601TE Parallel Opening Window  
The Optimum Ventilation Solution for Maximum Air Exchange
- Residential Aluminium Glazing Systems
- AA®3610LS Linked Sash Vertical Sliding Window  
The Optimum Ventilation Solution for your Education and Health Projects
- Specialist Horizontal Sliding Window Solutions for your Healthcare Project
- Architectural Aluminium Glazing Systems Specification Guide
- Sustainability: Our Total Commitment

Specialist Kawneer Contractor:



Kawneer's continuous development and engineering programmes may bring about product changes. Kawneer reserves the right to introduce without notice such changes which will not detract from the product's performance  
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# Window Systems



A R C H I T E C T U R A L A L U M I N I U M G L A Z I N G S Y S T E M S



West Lothian Council, Livingston, Edinburgh  
BDP Architects  
Casement Windows  
Tiltturn Windows  
Entrance Doors  
Swing Doors  
Curtain Wall

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## Introduction

### Kawneer, a global systems company

Kawneer offers a comprehensive range of architectural aluminium building products and systems for commercial construction-entrances, framing systems, windows and curtain wall systems.

Since its beginnings over a century ago, Kawneer has been recognized as an innovator. Through the years, we've balanced experience with innovation. We've listened to our customers, and we are dedicated to providing the tools our customers need to succeed.

Our unrivalled team has a wealth of experience working closely with architects, contractors and clients to develop project solutions from their earliest concepts. We are committed to injecting innovation into new product development to ensure our products meet the most exacting engineering and technical standards whilst overcoming sophisticated design challenges. Kawneer's global design expertise, combined with aluminium's flexibility and recyclability, makes our building systems and products the right solutions for today and tomorrow.

### Committed to the success of your project

Kawneer products are made from materials of the highest quality and designed with the benefit of many years of construction experience. Because we control every stage of the process, from mining the bauxite ore through to designing individual systems, we offer a unique resource to architects and contractors. Our engineers and designers can support you through every stage of the design and installation process, ensuring a successful outcome.

### Need something special?

Kawneer offers the world's greatest pool of talent in architectural glazing systems, and we can design custom solutions that will help you to realise your most daring concepts. So don't compromise - by working with Kawneer you can achieve a solution to your most challenging architectural concept.

### Total Performance

High performance is an essential ingredient for all building components today – it is demanded by users and required by current building regulations. Throughout our history we have kept ahead of both the market and regulatory requirements to offer glazing solutions that surpass even the most demanding specifications, and our products meet or exceed all required standards of thermal performance. We have developed leading-edge production techniques to ensure that manufacturing efficiency is optimised, and environmental impact is minimised, and our right-first-time quality management systems have been devised to minimise waste and exceed the requirements of current ISO 9001 standards.

### Why Aluminium?

Kawneer has been producing advanced glazing solutions in this versatile material for many decades. Aluminium is a near-perfect material for architectural glazing products, and has practical advantages over all other available choices, including inherent resistance to corrosion and very low whole-life costs. Aluminium is also an environmentally friendly material and possibly one of the best options for energy saving within the construction industry. In the building sector vast amounts of aluminium are collected for recycling, with rates as high as 92-98%, and more than 50% of the energy used in aluminium production comes from hydro-electric schemes.

Cala Homes, Glasgow Harbour  
RMJM Architects

Windows  
Tilt Slide Doors  
Swing Doors

# AA<sup>®</sup>720 Series Window & Door Systems

## Introduction

The Kawneer AA<sup>®</sup>720 Series has been developed to meet the latest European requirements for thermal performance and has been future proofed against expected changes in thermal regulation up to 2019.

To enable complete flexibility of design, performance and cost, the AA<sup>®</sup>720 Series is available in four levels of thermal performance – the AA<sup>®</sup>720, the AA<sup>®</sup>720 HW, the AA<sup>®</sup>720 HI and the AA<sup>®</sup>720 HI<sup>Plus</sup>.

The 72mm profiles incorporate the very latest thermal technology including; extruded polyamide and ABS thermal breaks, insulated centre seals, foam isolators and foam core insulation.

As well as being fully integrated, the range can suite with Kawneer's curtain walling and framing products and is suitable for installation in low or high rise buildings for commercial and domestic new build or refurbishment projects.

## Construction

Crimped or pinned with mechanical corner cleats. Corner braces are also used.

Weathering is achieved by the use of single and dual durometer, EPDM gaskets.

Pressure equalised system.

## Configurations

As well as flexibility in performance, the AA<sup>®</sup>720 offers versatility in design with the range encompassing a wide variety of integrated window and door configurations. There is also a fire-rated AA<sup>®</sup>720 FR variant within the range that provides fire-rated door and fixed screen solutions.

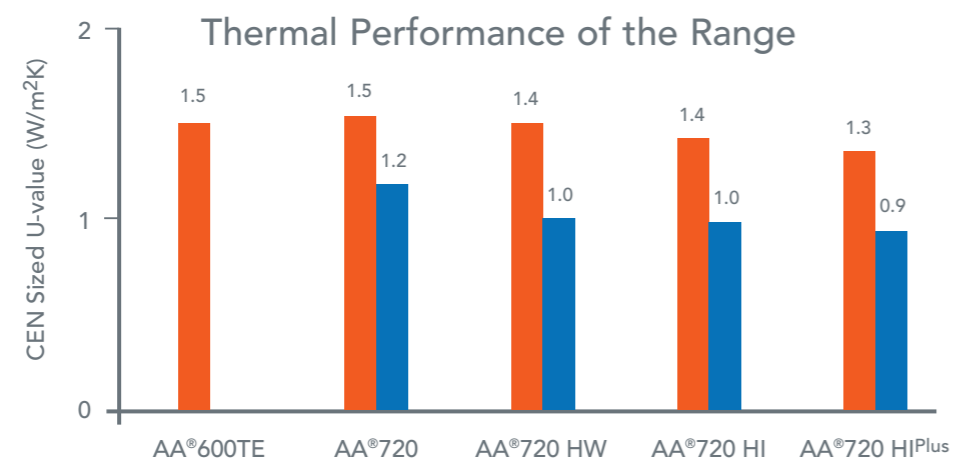
New variants to the AA<sup>®</sup>720 range are:

- Softline/Design variants with rounded contours
- Renovation "TIP" steel window replacement system
- Renovation variant with angular contours
- Concealed Vent variant where vent profiles are not visible from the outside
- Curtain Wall Look-a-like variant that offers the appearance of curtain wall

The AA<sup>®</sup>720 door offers extensive hardware configurations including new concealed hinges and barrel hinges as well as extensive handle and locking options.

## Glazing

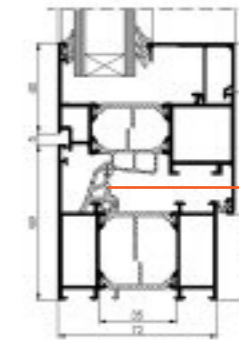
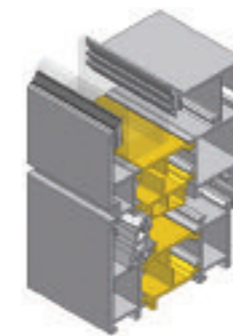
Glazing and panels up to 56mm thickness can be accommodated enabling the use of triple glazing for when there is a requirement for the very highest thermal and acoustic performance.



U-values are based on a 1230mm x 1480mm CEN sized tiltturn window

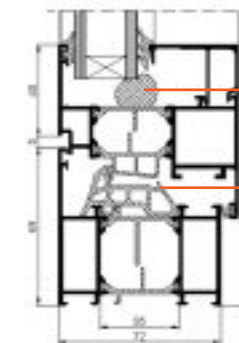
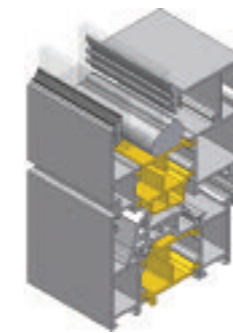
- Incorporating 1.1 W/m<sup>2</sup>K double glazing with warm edge Swisspacer V bar
- Incorporating 0.6 W/m<sup>2</sup>K triple glazing with warm edge Swisspacer V bar

## AA<sup>®</sup>720



EPDM Centre Seal

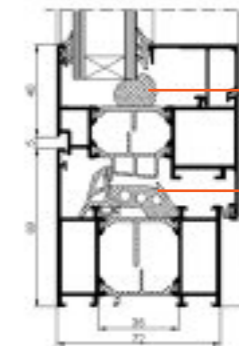
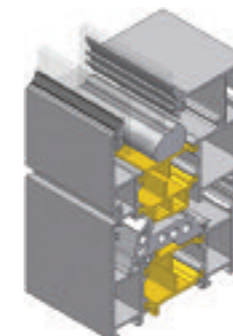
## AA<sup>®</sup>720 HW



PE Foam & Glass Isolator

EPDM Centre Seal

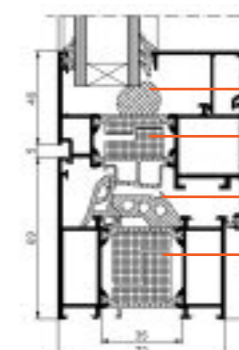
## AA<sup>®</sup>720 HI



PE Foam & Glass Isolator

Dual Durometer Centre Seal (EPDM & Foam)

## AA<sup>®</sup>720 HI<sup>Plus</sup>



PE Foam & Glass Isolator

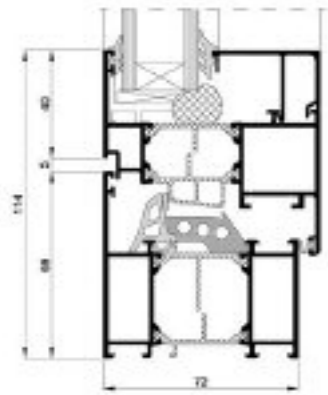
Insulated Foam Core

Dual Durometer Centre Seal (EPDM & Foam)

Insulated Foam Core

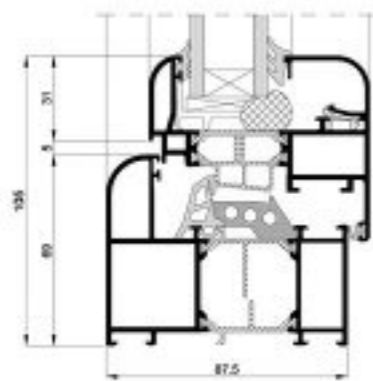
# AA<sup>®</sup>720 Window Series

## AA<sup>®</sup>720 HI Standard



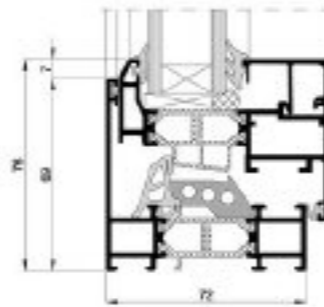
Straight overall contour with flush vent and frame line

## AA<sup>®</sup>720 HI Softline



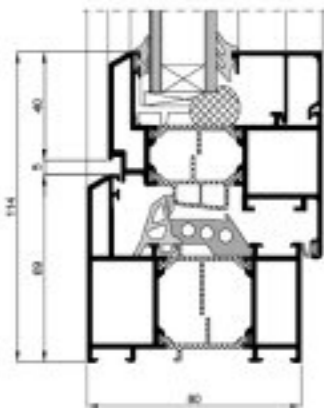
Rounded overall contour

## AA<sup>®</sup>720 HI Integral (Concealed Vent)



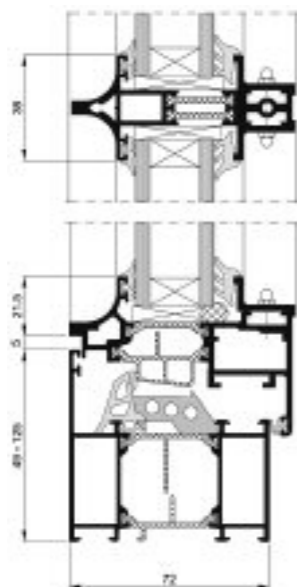
Narrow sightlines with visible aluminium facet on the vent

## AA<sup>®</sup>720 HI Renovation



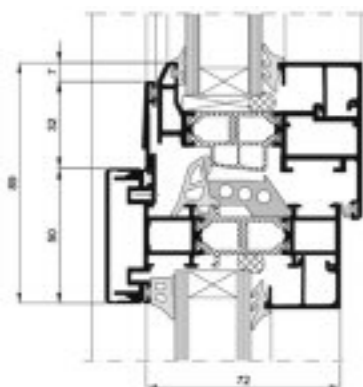
Angular contours for renovation projects

## AA<sup>®</sup>720 HI Renovation "TIP"



For the replacement of steel heritage windows

## AA<sup>®</sup>720 HI Curtain Wall Look-a-like



AA<sup>®</sup>720 Renovation "TIP" used on a steel window replacement project

# Product Selector

Performance	AA <sup>®</sup> 720	AA <sup>®</sup> 720 HW	AA <sup>®</sup> 720 HI	AA <sup>®</sup> 720 HIPlus <sup>◆</sup>
U-value (Double Glazing)*	1.5 W/m <sup>2</sup> K	1.4 W/m <sup>2</sup> K	1.4 W/m <sup>2</sup> K	1.3 W/m <sup>2</sup> K
U-value (Triple Glazing)**	1.2 W/m <sup>2</sup> K	1.0 W/m <sup>2</sup> K	1.0 W/m <sup>2</sup> K	0.9 W/m <sup>2</sup> K
Frame Depth	72mm	72mm	72mm	72mm
Window Energy Rating (WER)*	A	A	A	A
BRE Green Guide Summary Rating <sup>■</sup>	B	B	B	B
Sound Insulation (BS EN 4109)	39-47 dB	39-47 dB	39-47 dB	39-47 dB
Air Infiltration (BS EN 12207: 2000)	Class 4	Class 4	Class 4	Class 4
Watertightness (BS EN 12208: 2000)	Class E1200	Class E1200	Class E1200	Class E1200
Wind Resistance (BS EN 12210: 2000)	Class C4/B4	Class C4/B4	Class C4/B4	Class C4/B4
Security (ENV 1627)	WK1, 2 & 3	WK1, 2 & 3	WK1, 2 & 3	WK1, 2 & 3

Design Variants	AA <sup>®</sup> 720	AA <sup>®</sup> 720 HW	AA <sup>®</sup> 720 HI	AA <sup>®</sup> 720 HIPlus <sup>◆</sup>
Standard	•	•	•	•
Softline/Design – Rounded Contours	•	•	•	•
Integral – Concealed Vent	•	•	•	•
Renovation "TIP" – Steel Replacement	•	•	•	•
Renovation – Angular Contours	•	•	•	•
Curtain Wall Look-a-like	•	•	•	•

Configurations	AA <sup>®</sup> 720	AA <sup>®</sup> 720 HW	AA <sup>®</sup> 720 HI	AA <sup>®</sup> 720 HIPlus <sup>◆</sup>
<b>Inward Opening</b>				
Tiltturn	•	•	•	•
Side Hung	•	•	•	•
Bottom Hung	•	•	•	•
Turn/Tilt	•	•	•	•
Tilt/Slide	•	•	•	•
<b>Outward Opening</b>				
Vertical Pivot	•			•
Horizontal Pivot	•			•
Top Hung Casement	•	•	•	•

Design Features	AA <sup>®</sup> 720	AA <sup>®</sup> 720 HW	AA <sup>®</sup> 720 HI	AA <sup>®</sup> 720 HIPlus <sup>◆</sup>
Maximum Vent Size	1600mm x 2100mm			
Maximum Vent Weight	200kg	200kg	200kg	200kg
Dual Colour Option	•	•	•	•
Maximum Glazing Thickness	56mm	56mm	56mm	56mm
Multi-Point Locking	•	•	•	•

\* Window Energy Ratings and U-values based on CEN size windows (1230mm x 1480mm) using 1.1 W/m<sup>2</sup>K double glazing with warm edge Swisspacer V bar.

\*\* U-values based on CEN size windows (1230mm x 1480mm) using 0.6 W/m<sup>2</sup>K triple glazing with warm edge Swisspacer V bar.

<sup>■</sup> Corresponds to the BRE Global Green Guide online generic specification for commercial windows and achieves a summary rating of B. [www.thegreenguide.org.uk](http://www.thegreenguide.org.uk) Element Number 831500018.

Sound insulation values are Rw reduction values and are based on tests using acoustic glazing. Further details are available within the Product Manual

Independently weather and operational performance tested to BS EN 1026, 1027 & 12211

Refer to size charts within the Product Manual for the full range of available sizes

<sup>◆</sup> AA<sup>®</sup>720 HIPlus available Q1 2012

# AA<sup>®</sup>540 Series Window System

## Introduction

The Kawneer AA<sup>®</sup>540 Series corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A\*. The AA<sup>®</sup>540 has been designed with aesthetics and energy efficiency in mind to ensure compliance with today's stringent performance requirements.

Suitable for new build and refurbishment projects, the AA<sup>®</sup>540 is the window of choice for all applications. Consisting of a Casement, Pivot and Tiltturn window within the same suite, the AA<sup>®</sup>540 is suitable for Education, Healthcare, Commercial, Retail and Residential markets where cost is the key driver.

## Construction

Crimped with mechanical corner cleats. Corner braces are also used.

Weathering is achieved by the use of single and dual durometer, EPDM gaskets – all with non-shrinkage cord.

Pressure equalised system.

## Independently Weather Performance Tested to BS 6375-1: 2009

	Air Infiltration BS EN 12207: 2000	Watertightness BS EN 12208: 2000	Wind Resistance BS EN 12210: 2000
AA <sup>®</sup> 541 Casement	Class 4	Class 9A	Class AE2400
AA <sup>®</sup> 542 Pivot	Class 4	Class 9A	Class AE2400
AA <sup>®</sup> 543 Tiltturn	Class 4	Class 9A	Class AE2400

All Windows comply with Operation and Strength Test BS 6375 Pt2

Details of the Kawneer product tests are available from the Technical Services Department at Runcorn.

\* [www.thegreenguide.org.uk](http://www.thegreenguide.org.uk) Element Number 831500023

A polyamide thermal break offers the option of single and dual colour along with enhanced thermal performance. The excellent weather performance ensures that the AA<sup>®</sup>540 system is suitable for low or high rise applications.

It is designed to suite with Kawneer's curtain walling, framing and door products ensuring total flexibility in application.

## Glazing

Glazing and panels up to 39mm thickness can be accommodated.

West Lothian Council, Livingston, Edinburgh  
BDP Architects  
Casement Windows  
Tiltturn Windows  
Entrance Doors  
Swing Doors  
Curtain Wall



# AA<sup>®</sup>541 Casement Window



## Introduction

The Kawneer AA<sup>®</sup>541 Casement Window is part of the Kawneer AA<sup>®</sup>540 Series window range designed to offer optimum weather and thermal performance at a competitive price. The AA<sup>®</sup>541 corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A\*\*. The AA<sup>®</sup>541 uses a multi-chamber thermal break core, ensuring thermal efficiency and full compliance with Document L.

The AA<sup>®</sup>541 Casement is available as a top hung or side hung window, the polyamide thermal break offers single or dual colour options.

## Product Features

■ BRE Green Guide 'A' Rated Frame **	■ For projects that require sustainable and environmental advantages
■ Multi-point locking	■ Security in line with BS 7950-1997 Amendments 1, 2 & 3 *
■ Option of Trickle ventilation	■ Can help meet the requirements of Document F
■ Espagnolette locking and key locking handles	■ Added security
■ Projected top hung or side hung or butt hinge options	■ Total flexibility suits most casement project applications
■ Suites with AA <sup>®</sup> 542 Pivot, AA <sup>®</sup> 543 Tiltturn, AA <sup>®</sup> 100/AA <sup>®</sup> 110 Curtain Walling, 451PT Framing System and Door Systems	■ Total design flexibility Offering total project solutions
■ Offset handle position (side hung)	■ Safety in use
■ Interlocking wedge spacers	■ Provides enhanced weather performance even on large windows
■ Restriction to 100mm	■ Compliant with the HTM 55 regulations and BS 8213 of 100mm initial opening
■ Folding openers with link bars	■ Offers safety in use
■ Standard hardware groove	■ Cost effective hardware solution
■ Glazing 6mm - 39mm	■ Total flexibility to suit most glass applications

\*\* Corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A.  
[www.thegreenguide.org.uk](http://www.thegreenguide.org.uk)  
 Element Number 831500023

## Security

Kawneer's AA<sup>®</sup>541 Casement Window has been independently tested to BS 7950: 1997 – Amendments 1, 2 & 3.

## With the decisive advantage of...

- For projects that require sustainable and environmental advantages
- Security in line with BS 7950-1997 Amendments 1, 2 & 3 \*
- Can help meet the requirements of Document F
- Added security
- Total flexibility suits most casement project applications
- Total design flexibility Offering total project solutions
- Safety in use
- Provides enhanced weather performance even on large windows
- Compliant with the HTM 55 regulations and BS 8213 of 100mm initial opening
- Offers safety in use
- Cost effective hardware solution
- Total flexibility to suit most glass applications

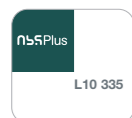
\* Does not refer to standard hardware, security hardware required.

# Casement Product Selector

Performance	AA <sup>®</sup> 541 Casement	AA <sup>®</sup> 601TE & AA <sup>®</sup> 601TEPlus Casement
Weather Performance (BS 6375)	•	•
Security to BS 7950	•	•▲
Capable of achieving U-value	1.7 W/m <sup>2</sup> K	1.6 W/m <sup>2</sup> K ✘
Warm Edge Spacer **	1.5 W/m <sup>2</sup> K	1.5 W/m <sup>2</sup> K ✘
Special Features		
BRE Green Guide 'A' Rated Frame ■	•	
Blast Enhanced Applications		•
Design Features		
Dual Colour Option	•	•
Composite Windows	•	•
Ribbon Windows (Independently Tested)	•	•
Punched Out Openings	•	•
Colour Co-ordinated Hardware		•
Triple Glazing	○	•
Infills up to 39mm	•	•
Infills up to 50mm		•
Standard Hardware Groove	•	
Multi-Point / Single Sided Locking Options	•	•
100mm Restriction	•	•
Trickle Ventilation	•	•
Locking Handles	•	•
Folding Openers	•	•
Cockspur Handle		•
Espagnolette Handle	•	•
Friction Hinges	•	•
Butt Hinges	•	•
Variable Angle Corner Post	•	
System Depth		
54mm	•	
67mm		•
Maximum Window Sizes *		
Projected Top Hung	1800mm x 1800mm	Upto 2300mm x Upto 2500mm ♦
Projected Side Hung	845mm x 1800mm	890mm x 1900mm ♦
Top Hung with Butt Hinges	1500mm x 1600mm	1800mm x 1600mm
Side Hung with Butt Hinges	900mm x 1600mm	900mm x 1600mm
Applications		
New Build	•	•
Refurbishment	•	•

Notes: ○ - Optional/Limited  
 \* - Dependant on Glass Size and Weight  
 \*\* - Calculated using TGI-Spacer  
 ▲ - AA<sup>®</sup>601TE  
 ✘ - AA<sup>®</sup>601TEPlus  
 ♦ - Heavy Duty Vent  
 ■ - Corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A.  
[www.thegreenguide.org.uk](http://www.thegreenguide.org.uk) Element Number 831500023

# AA®542 Pivot Window



## Introduction

The Kawneer AA®542 Pivot Window is part of the Kawneer AA®540 Series window range designed to offer optimum weather and thermal performance at a competitive price. The AA®542 corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A\*. The AA®542 uses a multi-chamber thermal break core, ensuring thermal efficiency and full compliance with Document L.

The AA®542 Window is available for both horizontal pivot and vertical pivot applications, which makes it the ideal choice where natural ventilation is a key project requirement.

## Product Features

- |  |   |
|--|---|
| ■ BRE Green Guide 'A' Rated Frame *  | ■ For projects that require sustainable and environmental advantages  |
| ■ Horizontal and vertical pivot option   | ■ Total flexibility<br>Can offer continuous air flow assisting compliance to Document F                             |
| ■ Option of Trickle ventilation  | ■ Can help meet the requirements of Document F  |
| ■ Multi-point locking or storm catch option  | ■ Suitable for all applications and available budget  |
| ■ Available with integral automatic 10° and 15° restriction and a reverse stop at 170°                               | ■ Offers safety in operation and use. Can offer compliance with HTM 55 and BS 8213 with up to 100mm initial opening |
| ■ Adjustable friction on the pivot mechanism   | ■ Can be adjusted to meet the needs of the project application meeting the needs of the end user                    |
| ■ The pivot operation is exclusively designed for Kawneer  | ■ Designed to suit the extrusion for exceptional aesthetics and performance   |
| ■ Suites with AA®541 Casement, AA®543 Tiltturn, AA®100/AA®110 Curtain Walling, 451PT Framing System and Door Systems | ■ Total design flexibility<br>Offering total project solutions  |

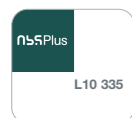
\* Corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A.  
[www.thegreenguide.org.uk](http://www.thegreenguide.org.uk)  
Element Number 831500023

# Pivot Product Selector

Performance	AA®542 Pivot	AA®602TE Pivot
Weather Performance (BS 6375)	●	●
Capable of achieving U-value	1.7 W/m²K	1.7 W/m²K
Warm Edge Spacer **	1.6 W/m²K	1.6 W/m²K
<b>Special Feature</b>		
BRE Green Guide 'A' Rated Frame ■	●	
<b>Design Features</b>		
Dual Colour Option	●	●
Composite Windows	●	●
Ribbon Windows	●	●
Punched Out Openings	●	●
Colour Co-ordinated Hardware		●
Triple Glazing	○	●
Infills up to 39mm	●	●
Infills up to 50mm		●
Multi-Point / Single Sided Locking Options	●	●
Storm Catches	●	●
Up to 100mm Restriction	●	●
Trickle Ventilation	●	●
Locking Handles	●	●
Cockspur Handle	●	●
Espagnolette Handle	●	●
10° Restriction	●	●
15° Restriction	●	●
<b>System Depth</b>		
54mm	●	
67mm		●
<b>Maximum Window Sizes *</b>		
Height*	1800mm	1900mm
Width*	1800mm	1900mm
<b>Applications</b>		
New Build	●	●
Refurbishment	●	●

Notes: ○ - Optional/Limited  
\* - Dependant on Glass Size and Weight  
\*\* - Calculated using TGI-Spacer  
■ - Corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A.  
[www.thegreenguide.org.uk](http://www.thegreenguide.org.uk)  
Element Number 831500023

# AA<sup>®</sup>543 Tiltturn Window



## Introduction

The Kawneer AA<sup>®</sup>543 Tiltturn Window is part of the Kawneer AA<sup>®</sup>540 Series window range, designed to offer optimum weather and thermal performance at a competitive price. The AA<sup>®</sup>543 corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A\*\*. The AA<sup>®</sup>543 uses a multi-chamber thermal break core, ensuring thermal efficiency and full compliance with Document L.

## Product Features

- BRE Green Guide 'A' Rated Frame \*\*
- Tilt before turn operation. Tilt for ventilation and turn for cleaning
- Option of Trickle ventilation
- Multi-point locking and optional security hardware
- Multi-function handle
- Option of concealed hinges
- Standard hardware groove
- Suites with AA<sup>®</sup>541 Casement, AA<sup>®</sup>542 Pivot, AA<sup>®</sup>100/AA<sup>®</sup>110 Curtain Walling, 451PT Framing System and Door Systems

\*\* Corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A.  
[www.thegreenguide.org.uk](http://www.thegreenguide.org.uk)  
 Element Number 831500023

## Security

Kawneer's AA<sup>®</sup>543 Tiltturn Window has been independently tested to BS 7950: 1997 – Amendments 1, 2 & 3.

## With the decisive advantage of ...

- For projects that require sustainable and environmental advantages
- Safety in operation and use. The full opening in the 'turn' position offers an escape route in an emergency (subject to size)
- Can help meet the requirements of Document F
- Security in line with BS 7950: 1997 Amendments 1, 2 & 3\*
- Offering locked, turn lock and open modes
- Aesthetics
- Cost effective hardware solution
- Total design flexibility Offering total project solutions

\* Does not refer to standard hardware, security hardware required.

# Tiltturn Product Selector

Performance	AA <sup>®</sup> 543 Tiltturn	AA <sup>®</sup> 603TE Tiltturn
Weather Performance (BS 6375)	●	●
Security to BS 7950	●	●
Capable of achieving U-value	1.6 W/m <sup>2</sup> K	1.6 W/m <sup>2</sup> K
Warm Edge Spacer **	1.5 W/m <sup>2</sup> K	1.5 W/m <sup>2</sup> K
<b>Special Feature</b>		
BRE Green Guide 'A' Rated Frame ■	●	
<b>Design Features</b>		
Dual Colour Option	●	●
Composite Windows	●	●
Ribbon Windows	●	●
Punched Out Openings	●	●
Colour Co-ordinated Hardware		●
Triple Glazing	○	●
Infills up to 39mm	●	●
Infills up to 50mm		●
Standard Hardware Groove	●	
Multi-Point Locking	●	●
100mm Restriction	●	●
Trickle Ventilation	●	●
Multi-function Handle	●	●
Variable Angle Corner Post	●	
<b>System Depth</b>		
54mm	●	
67mm		●
<b>Maximum Window Sizes *</b>		
Tiltturn only	Upto 1600mm x Upto 2200mm	Upto 1600mm x Upto 2100mm
<b>Applications</b>		
New Build	●	●
Refurbishment	●	●
Heavy Commercial		●

Notes: ○ - Optional/Limited  
 \* - Dependant on Glass Size and Weight  
 \*\* - Calculated using TGI-Spacer  
 ■ - Corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A.  
[www.thegreenguide.org.uk](http://www.thegreenguide.org.uk)  
 Element Number 831500023

## AA®600TE and AA®600TEPlus Series Window & Door Systems

### Introduction

The Kawneer AA®600TE and AA®600TEPlus Series has been designed to give specifiers a totally integrated system.

It has been developed to set new standards in window and door systems through its unrivalled flexibility of design and outstanding weather and thermal performance.

The Kawneer AA®600TE and AA®600TEPlus Series is a high performance, totally integrated and fully co-ordinated window and door system. A polyamide thermal break offers dual colour and enhanced thermal performance.

The range can suite with Kawneer's curtain walling and framing products and is suitable for installation in low or high rise buildings for commercial and domestic new build or refurbishment projects.

### Construction

Crimped with mechanical corner cleats. Corner braces are also used.

Weathering is achieved by the use of single and dual durometer, EPDM gaskets - all with non-shrinkage cord.

Pressure equalised system.

### Independently Weather Performance Tested to BS 6375-1: 2009

	Air Infiltration BS EN 12207: 2000	Watertightness BS EN 12208: 2000	Wind Resistance BS EN 12210: 2000
AA®601TE and AA®601TEPlus Casement	Class 4	Class 9A	Class AE2400
AA®602TE Pivot	Class 4	Class 9A	Class AE2400
AA®603TE Tiltturn	Class 4	Class 9A	Class AE2400
AA®603TE Tilt Slide 2-pane	Class 4	Class 9A	Class C4
AA®603TE Tilt Slide 4-pane	Class 4	Class 9A	Class CE2400

All Windows comply with Operation and Strength Test BS 6375 Pt2.

Details of the Kawneer product tests are available from the Technical Services Department at Runcorn.

Aluminium framing construction incorporates extruded polyamide thermal break profiles which mechanically interlock with inner and outer aluminium extrusions in a bi-tubular configuration to produce fixed frames or opening frames to suit performance and cost requirements.

With the use of extruded gasket profiles, this system achieves its weather sealing performance by means of drained and ventilated rebates on a pressure equalised design principle. The system has been designed with no visible gasket line to enhance the overall appearance.

The window system has been exclusively designed, developed and tested by Kawneer UK using proven technology. Installation contracts are carried out by fully trained Kawneer approved specialist contractors.

### Glazing

Glazing and panels up to 50mm thickness can be accommodated.



# AA®601TE and AA®601TEPlus Casement Windows



## Introduction

Kawneer's AA®601TE and AA®601TEPlus Casement Windows are members of the AA®600TE and AA®600TEPlus Series Window & Door System, designed to optimise thermal performance in compliance with Document L and Scottish Building Standards Part 6.

The AA®601TE and AA®601TEPlus Casement windows are available as top or side hung windows and can be single or dual colour with a polyamide thermal break for excellent thermal performance.

## Security

Kawneer's AA®601TE Casement Window has been tested to BS 7950: 1997 - Amendments 1, 2 & 3.

## Product Features

- |  |  |
|--|--|
| ■ Multi-point locking with corner drive  | ■ Security in line with BS 7950-1997 Amendments 1, 2 & 3 * (AA®601TE)                            |
| ■ Option of Trickle ventilation  | ■ Can help meet the requirements of Document F   |
| ■ Espagnolette locking and key locking handles   | ■ Added security   |
| ■ Projected top hung or side hung or butt hinge options  | ■ Total flexibility suits most casement project applications                                     |
| ■ Heavy Duty Vent  | ■ Increased vent sizes and weights   |
| ■ Suites with AA®602TE Pivot, AA®603TE Tiltturn, AA®605TE and AA®605TEPlus Doors, Kawneer Curtain Walling, AA®130 Brise Soleil and 451PT Framing | ■ Total design flexibility Offering total project solutions                                      |
| ■ Fireman's axe handles as an option   | ■ Can help provide an emergency escape   |
| ■ Offset handle position   | ■ Safety in use  |
| ■ Interlocking wedge spacers   | ■ Provides enhanced weather performance even on large windows                                    |
| ■ Fixed restrictor with adjustable friction  | ■ Compliant with the HTM 55 regulations and BS 8213 of 100mm initial opening                     |
| ■ Stays with adjustable friction   | ■ Can be adjusted to meet the needs of the project application meeting the needs of the end user |
| ■ Folding openers with link bars   | ■ Offers safety in use   |
| ■ Colour co-ordinated handles and hinges   | ■ Better aesthetics  |

## AA®601TEPlus Thermal Enhancement

The AA®601TEPlus enhancements include convection fins within the framing and vent profiles as well as EPDM "heat shields" in the hardware cavity. These modifications enable the system to outperform the stringent thermal demands outlined in Approved Document L 2010.

## With the decisive advantage of...

- Security in line with BS 7950-1997 Amendments 1, 2 & 3 \* (AA®601TE)
- Can help meet the requirements of Document F
- Added security
- Total flexibility suits most casement project applications
- Increased vent sizes and weights
- Total design flexibility Offering total project solutions
- Can help provide an emergency escape
- Safety in use
- Provides enhanced weather performance even on large windows
- Compliant with the HTM 55 regulations and BS 8213 of 100mm initial opening
- Can be adjusted to meet the needs of the project application meeting the needs of the end user
- Offers safety in use
- Better aesthetics

\* Does not refer to standard hardware, security hardware required.

Islington Wharf, Manchester  
Broadway Malyan Architects  
Casement Windows  
Entrance Doors  
Tilt Slide Doors  
Swing Doors  
Curtain Wall  
Framing



# AA®601TE Parallel Opening Window

*the optimum ventilation solution for maximum air exchange*



## Introduction

The Kawneer AA®601TE Parallel Opening Window is available as a stand alone window system and as an insert into existing Kawneer curtain walling and framing systems allowing complete design freedom.

Based on the established Kawneer AA®601TE window system, the parallel opening design benefits from the proven thermal performance of the standard AA®601TE casement, achieving U-values of 1.5 W/m<sup>2</sup>K for a CEN sized window with warm edge spacer, while offering exceptional levels of natural ventilation and air exchange.

Increased air flow around the full perimeter of the window facilitates highly efficient natural ventilation while greatly reducing draughts. Fresh air is drawn in via the bottom of the window while warm, stale air is expelled via the top of the window creating full circulation of air within the room.

This efficient exchange of air can assist with Approved Document F compliance and can enable the AA®601TE Parallel Opening Window to meet the ventilation requirements of even the most demanding project.

## Product Features

- |  |  |
|--|--|
| ■ Effective ventilation around the whole perimeter of the window   | ■ Can achieve approximately twice the natural ventilation of an equivalent sized top hung window * |
| ■ Increased air circulation and natural ventilation  | ■ Draughts are reduced while fresh air exchange is maximised *                                     |
| ■ 80mm clear opening restriction as standard   | ■ Safety for all users and occupants   |
| ■ Proven thermal performance of standard AA®601TE  | ■ U-value of 1.5 W/m <sup>2</sup> K for CEN sized window   |
| ■ Suites with Kawneer Curtain Wall and Framing products  | ■ Total design flexibility<br>Offering total project solutions                                     |
| ■ Parallel operation of window   | ■ Maintains the same reflective aesthetic as the facade  |
| ■ Maximum vent size of 1500mm wide x 2400mm high for manual operation (larger sizes may be possible using automatic operators) | ■ Large vents allow maximum glass area and can reduce the quantity of vents required               |

\* A recent case study carried out by Arup based on a typical classroom reported free air flow of 560 litres/sec for parallel opening windows compared to 290 litres/sec for top hung windows of an equivalent size.

Similarly, air changes within the classroom were reported as 10.9 per hour for the parallel window design compared to 5.7 for the equivalent sized top hung windows.

Roberts K. *CFD Comparative Analysis of Parallel & Top Hung Windows*, 2009.



## Operational Safety

The Kawneer AA®601TE Parallel Opening Window operating forces have been independently tested with vent sizes up to a maximum of 1500mm wide x 2400mm high falling within the 100N operating force requirement for manual operation. The AA®601TE Parallel Opening Window can also be used with automatic operators for operating forces greater than 100N or in places of restricted access.

Windows are restricted to 80mm clear opening as standard giving the confidence of safe operation for all users while further enhancing the security of the window.

## Weather Performance

Independently Tested to BS 6375-1: 2009

- Air Permeability 600Pa
- Watertightness 750Pa
- Resistance to Windload 2400Pa

Complies with Operation and Strength Test BS 6375 Pt2.

## Security

The Kawneer AA®601TE Parallel Opening Window has been independently security tested to BS 7950: 1997 - Amendments 1, 2 & 3, giving our customers, specifiers and end-users the confidence that the window meets exceptional security criteria.

# AA®602TE Pivot Window



## Introduction

The Kawneer AA®602TE Pivot window is based on the tried and tested design principles of the Kawneer AA®600TE series window and door system. The pivot window is available in horizontal or vertical applications which makes it a suitable window for most instances.

The AA®602TE pivot is especially user friendly with the chamfered vent for ease of operation; this with the unique gasketed pivot that remains watertight without the use of sealants gives the end user peace of mind.

## Product Features

- Horizontal and vertical pivot option

- Chamfered vent

- Option of Trickle ventilation

- Multi-point locking with corner drives

- Available with integral automatic restrictor with 10° and 15° and reverse stop at 170° with integral adjustable friction mechanism active from 0° to 170°

- Option of two safety face mounted restrictors

- The pivot operation is exclusively designed for Kawneer

- Colour co-ordinated pivots and handles

- Adjustable friction on the pivot mechanism

- Suites with AA®601TE and AA®601TEPlus Casement, AA®603TE Tiltturn, AA®605TE and AA®605TEPlus Doors, Kawneer Curtain Walling and 451PT Framing

The addition of an automatic restrictor of 10 or 15 degrees makes operation and safety in use paramount. This, coupled with the ventilation at the top and bottom of the window for full circulation of air makes the pivot the first choice for hospitals and offices. The vertical pivot complies with HTM 55/BS 8213 which makes it suitable for hospitals, schools and residential apartments.

## With the decisive advantage of...

- Total flexibility  
Can offer continuous air flow assisting compliance to Document F

- Offers excellent aesthetics coupled with smooth and positive operation for the end user

- Can help meet the requirements of Document F

- Added security

- Offers safety in operation and use

- Offers safety in operation and compliance with HTM 55 and BS 8213 of 100mm initial opening

- Designed to suit the extrusion for exceptional aesthetics and performance

- Aesthetics to suit project requirements

- Can be adjusted to meet the needs of the project application meeting the needs of the end user

- Total design flexibility  
Offering total project solutions

# AA®603TE Tiltturn Window



## Introduction

The Kawneer AA®603TE Tiltturn window (tilt in for ventilation – turn in for cleaning) is the ideal solution for ground floor applications where an outward opening window could cause injury to passers by. It is also ideal for multi-storey applications as the window can be cleaned safely from inside the building with the window in the turn mode.

The AA®603TE Tiltturn is suitable for new build or refurbishment projects.

## Product Features

- Tilt before turn operation. Tilt for ventilation and turn for cleaning

- Option of Trickle ventilation

- Top arm locator

- Suites with AA®601TE and AA®601TEPlus Casement, AA®602TE Pivot, AA®605TE and AA®605TEPlus Doors, Kawneer Curtain Walling and 451PT Framing

- Multi-point locking and optional security hardware

- Multi-function handle

- Option of concealed hinges

## Security

Kawneer's AA®603TE Tiltturn Window has been tested to the BS 7950:1997 Standard, incorporating Amendment Nos.1, 2 & 3\* - Specification for enhanced security performance, proven by stringent laboratory testing, carried out at the Building Research Establishment (BRE).

\* Does not refer to standard hardware, security hardware required.

## With the decisive advantage of...

- Draught free baffled ventilation and safety in operation and use. The full opening in the 'turn' position offers an escape route in an emergency (subject to size)

- Can help meet the requirements of Document F

- Offering anti slam and positive ventilation position

- Total design flexibility  
Offering total project solutions

- Security in line with BS 7950: 1997 Amendments 1, 2 & 3 \*

- Offering locked, turn lock and open modes

- Aesthetics

The Shoe Factory, Leicester  
Metropolis Architecture  
Casement Windows, Tiltturn Windows, GT70 Windows, Entrance Doors, Swing Doors, Framing



# AA<sup>®</sup>3610 and AA<sup>®</sup>3610LS Vertical Sliding Windows optimum ventilation solutions



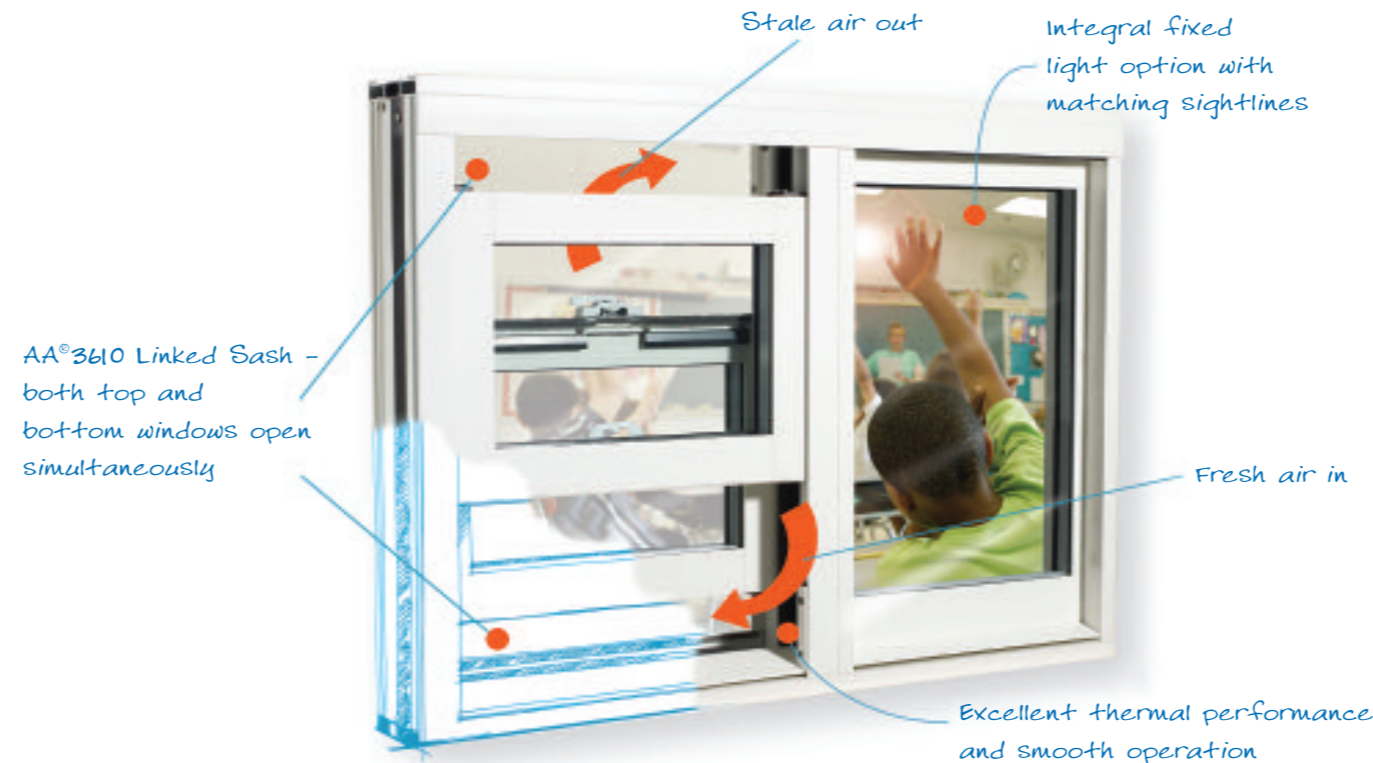
## Introduction

The AA<sup>®</sup>3610 and the AA<sup>®</sup>3610LS are the products to specify if maximum ventilation is critical to your project requirements. The ease in operation coupled with the air flow makes these windows ideal for schools and hospitals.

The systems offer a fully integrated, flexible thermally broken vertical slider that has been designed with performance and aesthetics in mind.

Thermal insulation is achieved by utilising a unique polyamide thermal break design to give ultimate weather and thermal performance and smooth operation.

The AA<sup>®</sup>3610LS is a unique solution which opens the top and bottom sashes simultaneously allowing stale air out of the top of the window whilst allowing cool fresh air to be drawn in via the bottom.



## Key Product Features of the AA<sup>®</sup>3610 & AA<sup>®</sup>3610LS

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>■ Vertical sliding window featuring linked, double sliding and fixed lights<br/>Punched openings coupled or composite units can be accommodated</li> </ul> | <ul style="list-style-type: none"> <li>■ Total flexibility for all project applications</li> </ul>   |
| <ul style="list-style-type: none"> <li>■ Bead glazing from 24mm-32mm can be accommodated</li> </ul>   | <ul style="list-style-type: none"> <li>■ Options for glazing to comply with thermal and safety glass</li> </ul>  |
| <ul style="list-style-type: none"> <li>■ Option of integral muntin bar</li> </ul>   | <ul style="list-style-type: none"> <li>■ Can help to replicate traditional wooden sash windows</li> </ul>  |
| <ul style="list-style-type: none"> <li>■ Concealed drainage</li> </ul>  | <ul style="list-style-type: none"> <li>■ Better aesthetics</li> </ul>  |
| <ul style="list-style-type: none"> <li>■ Option of integral handle pull</li> </ul>  | <ul style="list-style-type: none"> <li>■ Clean aesthetics</li> </ul>   |
| <ul style="list-style-type: none"> <li>■ Unique interlock design</li> </ul>   | <ul style="list-style-type: none"> <li>■ Offering exceptional weathering and thermal performance</li> </ul>  |
| <ul style="list-style-type: none"> <li>■ Flush opening, no intrusion into or out of the building</li> </ul>   | <ul style="list-style-type: none"> <li>■ No damage or interference with internal furnishings or blinds<br/>Added safety in use in ground floor applications</li> </ul> |
| <ul style="list-style-type: none"> <li>■ Suites with Kawneer Curtain Wall and Framing products</li> </ul>   | <ul style="list-style-type: none"> <li>■ Total design flexibility<br/>Offering total project solutions</li> </ul>  |

## With the decisive advantage of...

## Product Selector

	AA <sup>®</sup> 3610	AA <sup>®</sup> 3610LS
Torso and Ultra lift solutions available offering smooth operation to suite all project applications	●	
Single sliding option	●	
Locking fitch catch hardware available offering security in line with BS 7950: 1997 Amendments 1, 2 & 3 *	●	
Option to open at 100mm, can comply with HTM 55 and BS 8213	●	
Ease of use, one operation gives high and low single sided ventilation, not reliant on the occupant opening multiple vents		●
High level ventilation at no extra cost, negates the need for actuators or remote gear operation to be fitted		●
Tested to equivalent of 75 years keeping maintenance costs to a minimum		●
Option of trickle ventilation	●	●

\* Does not refer to standard hardware, security hardware required

## Construction

Construction of both the AA<sup>®</sup>3610 and AA<sup>®</sup>3610LS are square cut screw spline joinery for consistent fabrication.

Weathering is achieved by the use of EPDM gaskets – all with non shrinkage cord. The window is designed to be pressure equalised and fully drained.

## Robust Solution

The AA<sup>®</sup>3610LS has been successfully cycle tested to represent over 75 years of use, so you can be sure that when you specify it your maintenance costs will be kept to a minimum.

## Weather Performance

The AA<sup>®</sup>3610 as independently tested at the Building Research Establishment.

Air Permeability Class 3

Watertightness Class 9A 600Pa

Resistance to Windload Class B5

# AA®3110 Horizontal Sliding Window & Door



## Introduction

Special projects need special products and the AA®3110 horizontal sliding window is just that – a product designed to meet the needs of any project that requires maximum ventilation, including general healthcare applications and mental health facilities. The AA®3110 horizontal sliding window has been designed to ensure that the needs of the user are paramount with its easy to operate functions and compliance with the HTM 55 regulations.

The unique perforated wrap around gasket design ensures that the gasket cannot be taken out, for potential self harm.

The AA®3110 is the product that you can specify with confidence when specifying demanding healthcare projects.

The AA®3110 is available as a sliding window or door that can be single or dual colour.

We are happy to work with your design team to meet your special project requirements.

## Product Features

- Unique perforated wrap around glazing gasket
- Stainless steel track with adjustable wheels
- Double or single sliding options, including 3 or 4 door options
- Option for operation from both inside and outside
- Self regulation ventilator in line with wind pressure
- Dual colour option
- Window when open does not project into the building
- Glazing up to 33mm Suitable for specialist and safety glazing and interstitial blinds

## With the decisive advantage of...

- Required when an anti-ligature solution is essential when handling demanding hospital projects
- Smooth operation designed in line with the end user in mind
- Total flexibility for all project applications. The continuous air flow offers the perfect solution for Document F compliance
- Project solution for balcony applications
- Ideal to maximise air flow and ensure comfort for the occupants
- Can specify a different colour finish for inside and outside
- Ideal when safety is a consideration on a project
- Even the most demanding projects can be accommodated

## Special project support for your healthcare project

Demanding projects need special support and advice. At Kawneer we have a specialist Specification Team who can give informed advice on your hospital or school requirements, from ventilation to anti-ligature, to ensure the best solution for your particular application.

## Construction

Weathering is achieved by the use of EPDM gaskets and woolpile. The Window is designed to be pressure equalised and fully drained.

## Weather Performance

Independently tested at the Building Research Establishment up to the following performance \*

Air Permeability Class 3

Watertightness Class 9A 600Pa

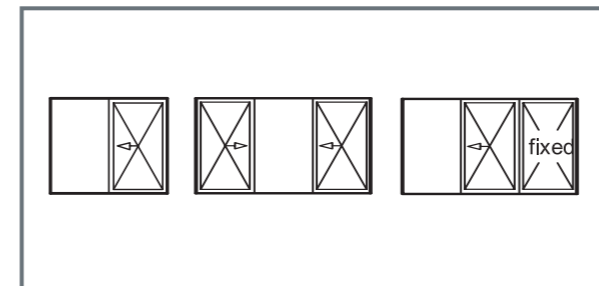
Resistance to Windload Class B5

\*Performance is dependant on frame and panel combinations

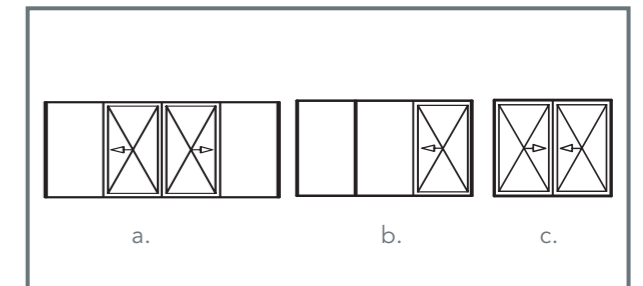
## Security \*\*

Independently tested to ENV 1627 Class 2 by the SKG test institute in the Netherlands.

\*\* Does not refer to standard hardware, security hardware required.



Sliding Sash / Fixed Frame



a. Sliding Sash / Fixed Frame 4 Part  
b. Sliding Sash / Fixed Frame with Side Light  
c. Sliding Sash Frame

AA®3110 Window with fixed lights above and below



# AA®3110HW Healthcare Window

designed in line with the demanding requirements of mental health units



## Introduction

Kawneer has a long track record of successful project delivery in the Healthcare market, providing best value and best practice solutions.

Working in partnership with several Healthcare Trusts across the UK, Kawneer has developed the AA®3110HW horizontal window with key features which makes this window suitable for use within the Mental Healthcare sector. Our experience has highlighted the need to be flexible with the patients needs whilst ensuring that their safety and well being is paramount.

The AA®3110HW is the product you can specify with confidence.

## Key Product Features

■ Perforated Glazing Gasket

■ No Glazing Bead

■ Specialist Hardware

■ Concealed window locking

■ Horizontal Sliding Window - does not open into the room

■ Fully tested for safety in use

■ Proven in use in even the most stringent conditions

■ Excellent weather performance

■ Perforated stainless steel mesh

## Ventilation

The pursuit of naturally ventilated building solutions has become a vital component when considering the design of hospitals which is driven by a desire for a healthier environment. The purpose of ventilation is to move stale air from within a building replacing it with fresh air from the outside.

Kawneer's response to this requirement has been the development of key products within its suite of windows including the AA®3110HW Horizontal Sliding window, AA®3610/AA®3610LS Vertical Sliding windows, AA®601TE Parallel Opening Window and the AA®542 and AA®602TE Pivot windows.

## With the decisive advantage of...

■ Breaks into harmless pieces when an attempt is made to remove it from the window

■ Bead cannot be removed and used as a weapon or for self-harm

■ Aesthetically designed handle with no ligature risk

■ Locking at 125mm opening offering safety and security \*

■ No ligature point is formed by the opening of the window

■ Giving you peace of mind in even the most stringent conditions. The three security levels offered ensure that you have the flexibility to choose the right solution for each application

■ Robust solution to meet the needs of all applications

■ Offering you peace of mind and comfort for the end user

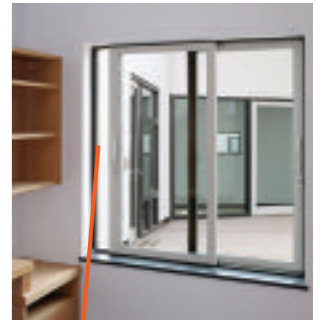
■ Allows ventilation, visibility and security  
Stops the flow of contraband in or out of the window

\* Locking at 100mm compliant with HTM 55 and BS 8213 is also available

Understanding the individual needs of each project, we have designed three window security levels, giving you a choice to meet your performance and budget needs.

## Security Level 1

- Double or single sliding windows
- Closed or locked open at 125mm – suitable where nurse operation needs to be a consideration
  - Can offer purge ventilation if required
- Permanently restricted at 125mm – can be patient operated
  - Purge ventilation not an option for this application
- Secure clip in plates
- Anti-ligature handles and hardware
- Perforated wrap around glazing gasket for sash



Locked open at 125mm (single and double sliding options)

## Security Level 2

- Single sliding window
- Permanent perforated stainless steel mesh on the outside of the window offers good visibility and ventilation
- Suitable where contraband is an issue
- No visible hardware – free opening for patient operation
- Secure clip in plates
- Anti-ligature handles
- Perforated wrap around glazing gasket for sash



Permanent mesh on the outside of the window

## Security Level 3

- Single sliding window
- Anti-ligature handles and hardware
- Perforated wrap around glazing gasket for sash
- Hidden perforated stainless steel mesh (hidden on the other side of the wall)
  - Perforated stainless steel mesh comes across the window on opening
  - No visible mesh – the occupant cannot see the mesh until the window is opened
  - Perforated stainless steel mesh will stop the exchange of contraband whilst maintaining security
- Window can be opened fully – ideal for ventilation
- The patient can have full control of the window



Mesh comes across the window on opening allowing good visibility but preventing the flow of contraband in or out of the window

The Specifier must ensure that the Security Level chosen is suitable for the occupants for present and future use.

For more detailed information on this product, including our useful 'Window Product Selector' please contact us for a copy of our Specialist Healthcare Brochure, please call 01928 502612.

## Case Study - Dock 9, Erie Basin



The two towers in total comprise more than 200 apartments including studios and one-to three-bedrooms units as well as 6,000ft<sup>2</sup> of retail space.

Broadway Malyan Architects designed the two concrete-framed residential towers to contrast in nature and positioning so they would have equal presence on the 0.46-hectare site and as such, block A has been clad horizontally and block B vertically.

Block A's apartments have been planned so the living room always has a corner view beyond the balcony towards the dock and Lowry Centre. Each room type has a different Kawneer window arrangement, all to a 500mm module.

To help bring a futuristic appearance to the £25 million development of one of the last remaining sites at Manchester's iconic Salford Quays, Kawneer's curtain walling, windows and doors featured on the Millennium Estates' two mixed-use towers next to Erie Basin at Dock 9.

The curtain walled rainscreen front of block A of 10 storeys, which maintains a very horizontal emphasis, projects over the dockside walkway and cantilevers out akin to a ship launching into water.

The 20 storeys of the predominately white block B hover over a two-storey podium structure that contains car parking for residents and retail units fronting the dockside walkway.



Block B contrasts the arrangement of Kawneer's windows in block A by inserting vertical strips into the façade to 500mm modules. Various slot views are framed across the water at once, depending on the occupant's position within a particular room. Architect Neil Brown of Broadway Malyan (now director of nb architects) said: "The Kawneer systems complied very well aesthetically and met all performance requirements as detailed by the acoustics and façade and M&E engineers."

"They created a very futuristic appearance in accordance with the original design intent and interface very well with the other materials used on the project. The selection of materials deliberately remained simple to enhance and complement the purity of each of the individual elements of the scheme."

Dock 9, Erie Basin, Salford Quays  
Broadway Malyan Architects  
Casement Windows  
Tilt Slide Windows  
Entrance Doors  
Swing Doors  
Curtain Wall



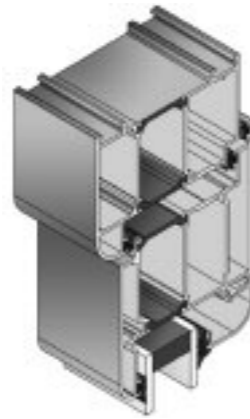
# AA<sup>®</sup>720 Door and AA<sup>®</sup>720 FR Fire-Rated Series

**AA<sup>®</sup>720**  
Standard Door



Straight overall contour with flush vent and frame line

**AA<sup>®</sup>720**  
Design Door



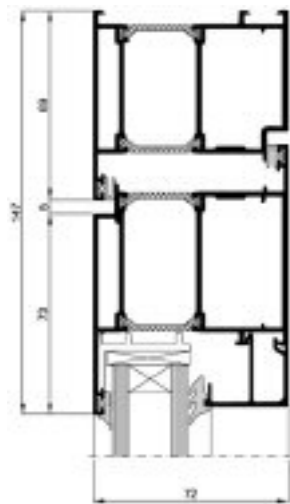
Rounded overall contour

**AA<sup>®</sup>720 FR**  
Fire-Rated System

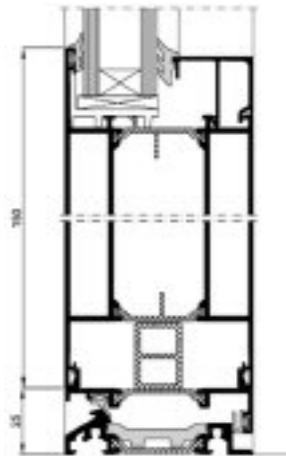


Fire-Rated system for doors and fixed screens

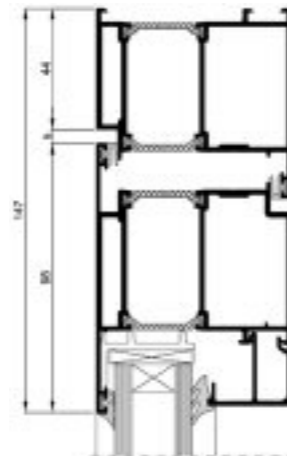
**AA<sup>®</sup>720**  
Standard Open-In Door



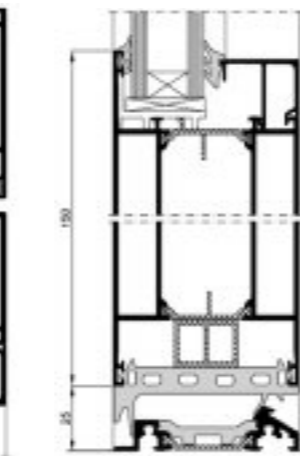
Head detail



Thermally broken threshold detail



Head detail



Thermally broken threshold detail with reversible EPDM piece

## Product Selector

Performance	AA <sup>®</sup> 720	AA <sup>®</sup> 720 HI	AA <sup>®</sup> 720 FR
U-value (Double Glazing)*	1.6 W/m <sup>2</sup> K	1.5 W/m <sup>2</sup> K	1.6 W/m <sup>2</sup> K
U-value (Triple Glazing)**	1.3 W/m <sup>2</sup> K	1.2 W/m <sup>2</sup> K	1.3 W/m <sup>2</sup> K
Frame Depth	72mm	72mm	72mm
Sound Insulation (BS EN 4109)	38 dB	38 dB	38 dB
Air Infiltration (BS EN 12207: 2000)	Class 2	Class 2	Class 2
Watertightness (BS EN 12208: 2000)	Class 4A	Class 4A	Class 4A
Wind Resistance (BS EN 12210: 2000)	Class C2	Class C2	Class C2
Security (ENV 1627)	WK2 & 3	WK2 & 3	WK2 & 3
Smoke Protection (DIN EN 1634-3)	-	-	•
Fire Protection (DIN EN 1634-1)	-	-	EI <sub>2</sub> 30
<b>Design Variants</b>			
Standard	•	•	•
Softline/Design – Rounded Contours	•	•	
Renovation – Angular Contours	•	•	
Panel Door	•	•	
<b>Configurations</b>			
<b>Inward Opening</b>			
Single	•	•	•
Double	•	•	•
Folding/Sliding	•	•	
<b>Outward Opening</b>			
Single	•	•	•
Double	•	•	•
<b>Design Features</b>			
Maximum Door Leaf Size	1400mm x 3000mm		
Maximum Door Leaf Weight	250kg	250kg	250kg
Dual Colour Option	•	•	•
Maximum Glazing Thickness	50mm	50mm	50mm
Colour Co-ordinated Hardware	•	•	•
Multi-Point Locking	•	•	•
Concealed Hinges	•	•	•
Barrel Hinges	•	•	•
Thermally Broken Threshold	•	•	•
Fire Escape (DIN EN 179)	•	•	•
Anti-Panic (DIN EN 1125)	•	•	•
Durable Function (EN 1191)	Heavy Duty	Heavy Duty	Heavy Duty

\* U-values based on BR443 size door (1000mm x 2000mm) using 1.1 W/m<sup>2</sup>K double glazing with warm edge Swisspacer V bar.

\*\* U-values based on BR443 size door (1000mm x 2000mm) using 0.6 W/m<sup>2</sup>K triple glazing with warm edge Swisspacer V bar.

Fire protection tests carried out using specialist glazing. Tested to DIN EN 1634-1

Sound insulation values are R<sub>w</sub> reduction values and are based on tests using acoustic glazing. Further details are available within the Product Manual

Independently weather and operational performance tested to BS EN 1026, 1027 & 12211

# AA®603TE Tilt Slide Door



## Introduction

The Kawneer AA®603TE Tilt Slide Door is available in a variety of single or double tilt slide combinations providing flexibility to suit individual project requirements.

The Kawneer AA®603TE Tilt Slide Door is especially user friendly. Sliders in the top guide rail and high precision bearings in the wheels ensure that even large and heavy doors operate with ease and very smoothly, giving the end user extra peace of mind.

The Kawneer AA®603TE Tilt Slide Door has been installed in applications such as executive homes, flats and apartments in a variety of colour options.

## Product Features

- Tilt for ventilation and slide for access
- The doors can be opened from the inside or outside, allowing internal or external access to the building
- Handles suite with Tiltturn window handles
- A spring buffer prevents the sash from being opened too far
- Suites with the AA®601TE and AA®601TE<sup>Plus</sup> Casement, AA®602TE Pivot, AA®603TE Tiltturn, Kawneer Curtain Walling and Framing products
- Extremely stable for sash weights up to 150kg
- Flexibility
- Ideal choice for balcony doors
- Aesthetics
- Safety in operation and use
- Total design flexibility Offering total project solutions
- Large vents can be specified for maximum air flow and light into the building

## Construction

The AA®603TE Tilt Slide Door is a pressure equalised system crimped with mechanical corner cleats. Weathering is achieved by the use of single and dual durometer, EPDM gaskets, all with non-shrinkage cord.

## Weather Performance

Air Permeability Grade C

Watertightness 600Pa

Resistance to Windload 2400Pa

## With the decisive advantage of...



AA®603TE Tilt Position



AA®603TE Slide Position

The Quays, Chatham Maritime, Kent  
KDS Associates and Wilkinson Eyre Architects  
Tilt Slide Doors  
Curtain Wall  
Unitised Curtain Wall



# AA®605TE and AA®605TEPlus Swing Doors



## Introduction

The Kawneer AA®605TE and AA®605TEPlus Swing Doors are high performance thermally efficient doors due to the polyamide thermal break that is incorporated into the aluminium profile. With the use of extruded gasket profiles, this system achieves its weathering performance by means of drained and ventilated glazing rebates.

Designed for direct fix to masonry, window and door composites or ribbon windows, the range can suite with the Kawneer curtain walling and framing systems and is suitable for low or high rise buildings.

The AA®605TE and AA®605TEPlus Swing Doors are available as single action open-in or open-out swing doors and can be single or dual colour.

## Construction

The AA®605TE and AA®605TEPlus Swing Doors are three chamber pressure equalised systems crimped with mechanical corner cleats. Weathering is achieved by the use of single and dual durometer, EPDM gaskets, all with non-shrinkage cord.

## Product Features

- Low (for easy wheelchair access) or mid/rebated threshold
- Specifically designed anti-finger trap protector
- Choice of locks: multi-point or single with latch, roller or deadbolt
- Adjustable two or three part hinges
- Suites with the AA®601TE and AA®601TEPlus Casement, AA®602TE Pivot, AA®603TE Tiltturn, Kawneer's Curtain Walling and Framing products
- Low threshold provides improved accessibility for all
- Finger guard design provides safety in use
- Flexibility
- Suitable for use in medium traffic locations
- Total design flexibility Offering total project solutions

## Security \*

Kawneer's AA®605TE Swing Door has been tested to the PAS 23 and PAS 24 Standards for the enhanced security performance of single and double leaf external doors, proven by stringent laboratory testing, carried out at the Building Research Establishment (BRE). The AA®605TE Door is suitable for both light and medium duty requirements, making it ideal for low to medium frequency use in dwellings and commercial applications.

*\* Does not refer to standard hardware, security hardware required.*

## AA®605TEPlus Thermal Enhancement

The AA®605TEPlus enhancements include a new thermally broken low threshold and EPDM gasket. In addition to this we have introduced additional glazing packers and formalised the glazing bead offer to allow the use of triple glazing.

## With the decisive advantage of...



Oxford Business Park  
Aukett Europe  
Swing Doors

# GT70 Slimline Renovation Window



## Introduction

The Kawneer GT70 Slimline Renovation Window is an elegant aluminium fenestration solution designed specifically to replicate the appearance of steel windows. Suitable for installation in new build or refurbishment projects, the GT70 window combines the optimum technical performance expected of today's aluminium windows, with the fine sightlines characteristic of original steel windows. These slender sightlines are enhanced further by optional bevelled designed feature caps adding a unique sculptured effect to the external surface of the building.

## Construction

Framing construction incorporates fill and debridge thermal break with resin. All frames have mechanically jointed and adhesive bonded corners. Installation can be by the direct fix method or by twist in fixing lugs.

## Glazing

Inward opening windows are internally glazed and outward opening windows are externally glazed, with a maximum glass thickness of 54mm for fixed lights and vents (inside glazed) and 33mm (outside glazed).

## Weather Performance

Air Infiltration Grade C at 600Pa  
Watertightness no leakage at 600Pa  
Resistance to Windload up to 2000Pa\*

\*2000 special is dependant upon correct mullion and transom selection to suit span and spacing per project

## Product Features

- Fine sightline characteristics of steel windows
- Suitable for composite and ribbon windows
- Option for open out or open inwards
- A range of structural and coupling mullions available
- Special bevelled beads
- Concealed drainage system

## With the decisive advantage of...

- Particularly suitable for refurbishment projects
- Replication of steel with additional benefits associated with aluminium such as the high strength to weight ratio
- Offers wide choice of aesthetics



GT70 Open In



GT70 Open Out



## Supporting Your Projects



### Authorities

- ISO 9001:2000  
Quality Management System
- BS EN 12020  
Extruded precision aluminium profiles
- BS 3987  
Specification for anodic coatings
- BS 6496  
Specification for powder organic coatings
- BS 6375 Part 1  
Classification for weathertightness
- BS 6375 Part 2  
Specification for operation and strength
- BS 4873  
Specification for aluminium alloy windows
- BS 7950:1997  
Incorporating Amendment Nos.1, 2 & 3 -  
Specification for enhanced security  
performance
- BS 4255 Part 1  
Specification for non-cellular gaskets
- BS EN ISO 12567-1:2000  
NPL hot box test
- ASTM C509-94  
Specification for cellular gaskets

### A full range of guaranteed colours available

Kawneer Permacover™ is a high quality polyester powder paint finish, offering over 130 standard and 31 metallic paint colours and providing outstanding resistance to environmental conditions. Kawneer Permacover™ has 30 year gloss and a 30 year matt and metallic guarantees subject to application and Kawneer acceptance in marine, industrial, swimming pools or other aggressive atmospheres.

Kawneer Permanodic® is a range of subtle co-ordinated colours which have been researched and developed for architectural systems. Kawneer Permanodic® is a tried and tested anodising process, proven in accelerated laboratory tests, extensive field trials and contract experience. Subject to compliance with Kawneer's requirements, a 25 year finishes guarantee can be obtained from our Head Office.

### Project Assistance

Kawneer's regionally based team of Architectural Advisors and the Architectural Services Team based at our Head Office in Runcorn are able to provide project advice and support:

**Tel: 01928 502604 / Fax: 01928 502512**  
**Email: [kawneerAST@alcoa.com](mailto:kawneerAST@alcoa.com)**

Information on Kawneer's extensive range of Curtain Wall, Window, Framing and Door solutions can also be obtained from our Head Office by calling:

**Tel: 01928 502612**

Kawneer UK Ltd is part of Alcoa Building and Construction Systems, and enjoys the extensive resources of the entire Alcoa organisation, allied to the specific glazing systems experience of Kawneer's many operations around the world. As a result of this our partners and customers have direct access to one of the largest pools of technical expertise in the construction industry.

Dock 9, Erie Basin, Salford Quays  
Broadway Malyan Architects

Casement Windows  
Tilt Slide Windows  
Entrance Doors  
Swing Doors  
Curtain Wall

