

AA®720 Inward Opening Window Systems

Introduction
The AA®720 Series has been developed to meet the latest European requirements for thermal performance.

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

The 72mm profiles incorporate the very latest thermal technology including; extruded polyamide and patented 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®720 offers versatility in design with the range encompassing a wide variety of integrated window and door configurations. There is also a fire resistant AA®720 FR variant within the range that provides fire-rated door and fixed screen solutions.

- Design variants to the AA®720 inward opening window 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-alike variant that offers the appearance of curtain wall

For information on Kawneer’s AA®720 Series Door Systems please refer to the Door Systems brochure.

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.

Security*
The AA®720 Tiltturn Window has been independently tested to PAS 24:2016.
** Does not refer to standard hardware, security hardware required.*



Independently Weather Performance Tested to BS 6375-1: 2015

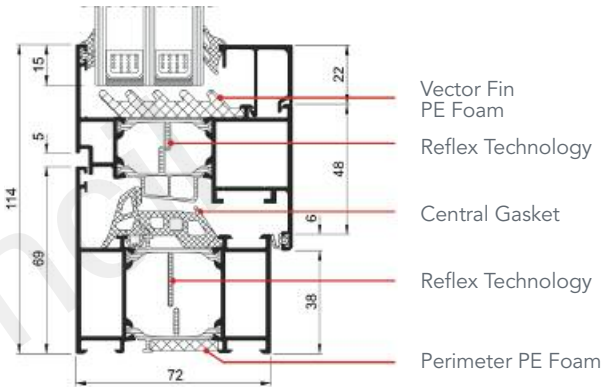
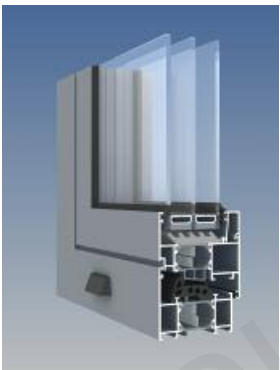
	Air Infiltration BS EN 12207: 2000	Watertightness BS EN 12208: 2000	Wind Resistance BS EN 12210: 2000
AA®720 Tiltturn	Class 4 (600 Pa)	Class E1200 (1200 Pa)	Class E2400 (2400 Pa)

All Windows comply with Operation and Strength Test BS 6375 Pt2: 2015

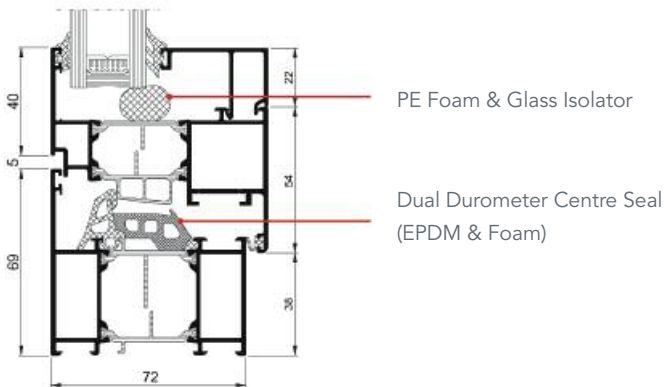
Details of the Kawneer product tests are available from the Technical Services Department at Runcorn.

Thermal Performance - Inward Opening

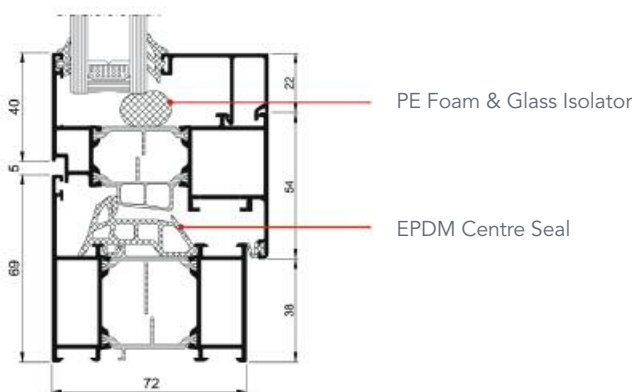
AA®720 HI Reflex Tiltturn



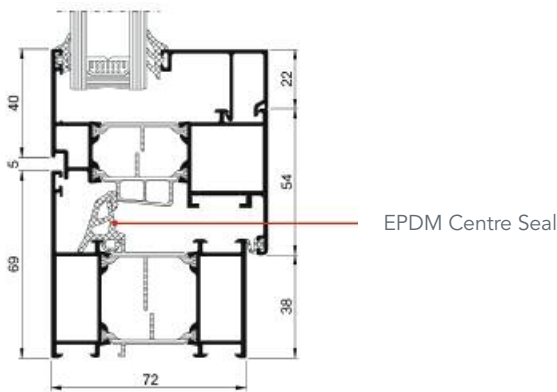
AA®720 HI Tiltturn



AA®720 HW Tiltturn



AA®720 Tiltturn



The AA®720 Reflex Technology

Due to the anticipated amendments to Approved Document L, and the continued market demands for high performance windows, Kawneer has developed a unique system it can apply to its polyamide thermal breaks to give further thermal improvements to the window, and reduce heat transfer through the profile.

The inclusion of a low emmisivity reflective foil to the thermal ‘flags’ allows the AA®720 Tiltturn to achieve U-values as low as 1.0 W/m²K for a CEN size window with a warm edge spacer**

Additional Product Features

In addition to the features described, the AA®720 Tiltturn Window offers market leading weight capabilities for a top hung window. With a capability of up to 130kg, high performance acoustic and/or security glass applications can be easily accommodated within the standard window without additional reinforcements or fabrication requirements.

With a choice of locking or non locking handles in a range of finishes, the system can be incorporated effectively in a number of applications.

The AA®720 Tiltturn Window has been designed with flexibility and ease of fabrication as key requirements. The system is internally glazed and incorporates a standard hardware groove, to provide cost effective locking hardware without compromising performance or security.

Thermal Performance

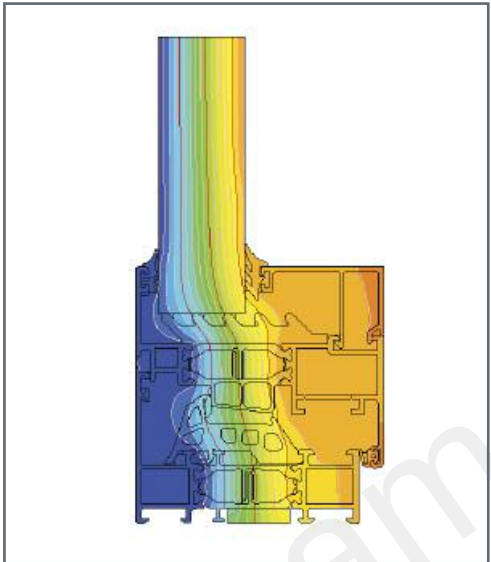
The AA®720 Tiltturn can be manufactured within 4 levels of thermal performance – providing flexibility in design, performance and cost.

AA®720 – Most cost effective option – EPDM centre seal.

AA®720 HW – Greater Performance Level, cost conscious – Closed cell vent perimeter foam, EPDM centre seal.

AA®720 HI – Greater Performance Level – Closed cell vent perimeter foam, dual durometer centre seal.

AA®720 HI Reflex – Highest Performance Level – Reflex Technology within the vent and frame profiles, closed cell PE vector fin glazing rebate foam, closed cell frame perimeter foam insulation tape, dual durometer centre seal.



Thermal Evaluation of the AA®720 HI Reflex Tiltturn Window

	Tiltturn		HW Tiltturn		HI Tiltturn		HI Reflex Tiltturn	
Glass	1.0 Ug*	0.6 Ug**	1.0 Ug*	0.6 Ug**	1.0 Ug*	0.6 Ug**	1.0 Ug*	0.6 Ug**
Overall Uw	1.5 W/m²K	1.2 W/m²K	1.3 W/m²K	1.0 W/m²K	1.3 W/m²K	1.0 W/m²K	1.3 W/m²K	1.0 W/m²K

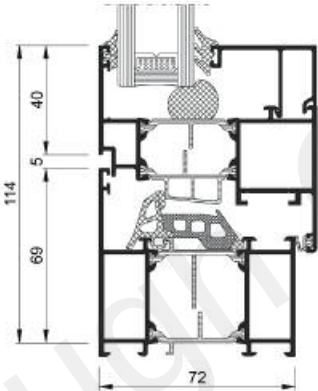
Based on a 34mm Outer Frame/43mm Inside Glaze vent Combination

* Window Energy Ratings and U-values based on CEN size windows (1230mm x 1480mm) using 1.0 W/m²K double glazing with warm edge (0.048 W/m²K) spacer.

** U-values based on CEN size windows (1230mm x 1480mm) using 0.6 W/m²K triple glazing with warm edge (0.043 W/m²K) spacer.

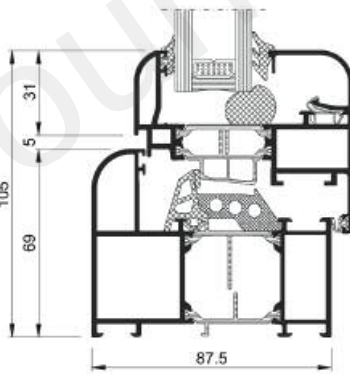
AA®720 Inward Opening Windows

AA®720 HI Standard



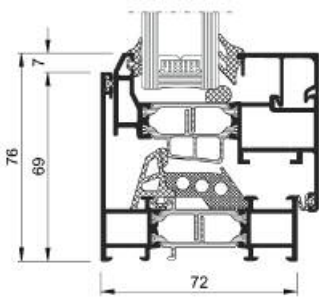
Straight overall contour with flush vent and frame line

AA®720 HI Softline



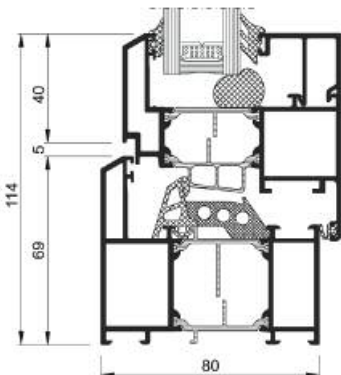
Rounded overall contour

AA®720 HI Integral (Concealed Vent)



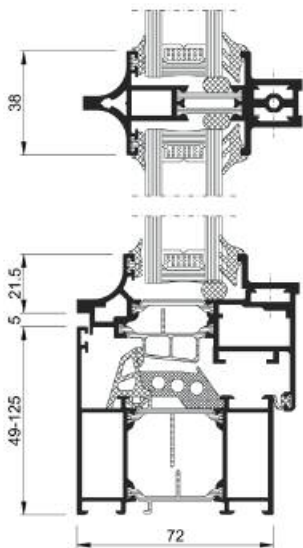
Narrow sightlines with visible aluminium facet on the vent

AA®720 HI Renovation



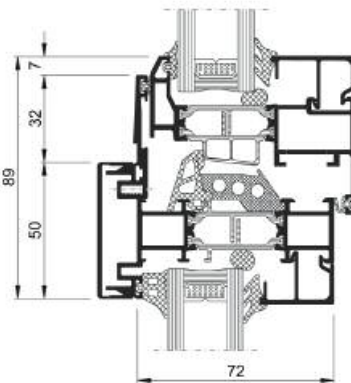
Angular contours for renovation projects

AA®720 HI Renovation “TIP”



For the replacement of steel heritage windows

AA®720 HI Curtain Wall Look-alike



AA®720 Tiltturn Window

Introduction

The AA®720 Tiltturn Window is part of the AA®720 range of Windows and Doors, designed to offer maximum weather and thermal performance at a competitive price range. Excellent thermal performance (AA®720 HI Reflex) has been met using Reflex technology with foam meeting the most demanding specification performance on any project.

Product Features and Benefits

- BRE Green Guide ‘A’ Rated Frame** for projects that require sustainable and environmental advantages
- Tilt before turn operation. Tilt for ventilation and turn for cleaning. The full opening in the ‘turn’ position offers an escape route in an emergency (subject to size)
- Standard bead, Box bead and Softline bead (Softline beads are mitred and secured with retaining clips)
- Excellent thermal performance U_f from 1.0W/m²K (AA®720 HI Reflex)
- Noise protection Rw=39-47dB
- Trickle ventilation option available to help meet the requirements of Document F
- Multi-point locking for added security and added safety in operation
- Accommodates glazing up to 56mm including triple glazing
- Suites with AA®720 series, Juliet Balcony, LouvreShield, AA®100/AA®110 Curtain Walling, 451PT Framing and Door Systems

Vent Size Limitations

All dimensions stated are in millimetres.
All dimensions stated are vent sizes.
Dimensions stated are General System Limitations.
Vent profile and hardware options are chosen depending upon size and glass weight.

- Maximum weight 300kg
- Vent 1600mm x 2100mm
- Leaf 1100mm x 3000mm

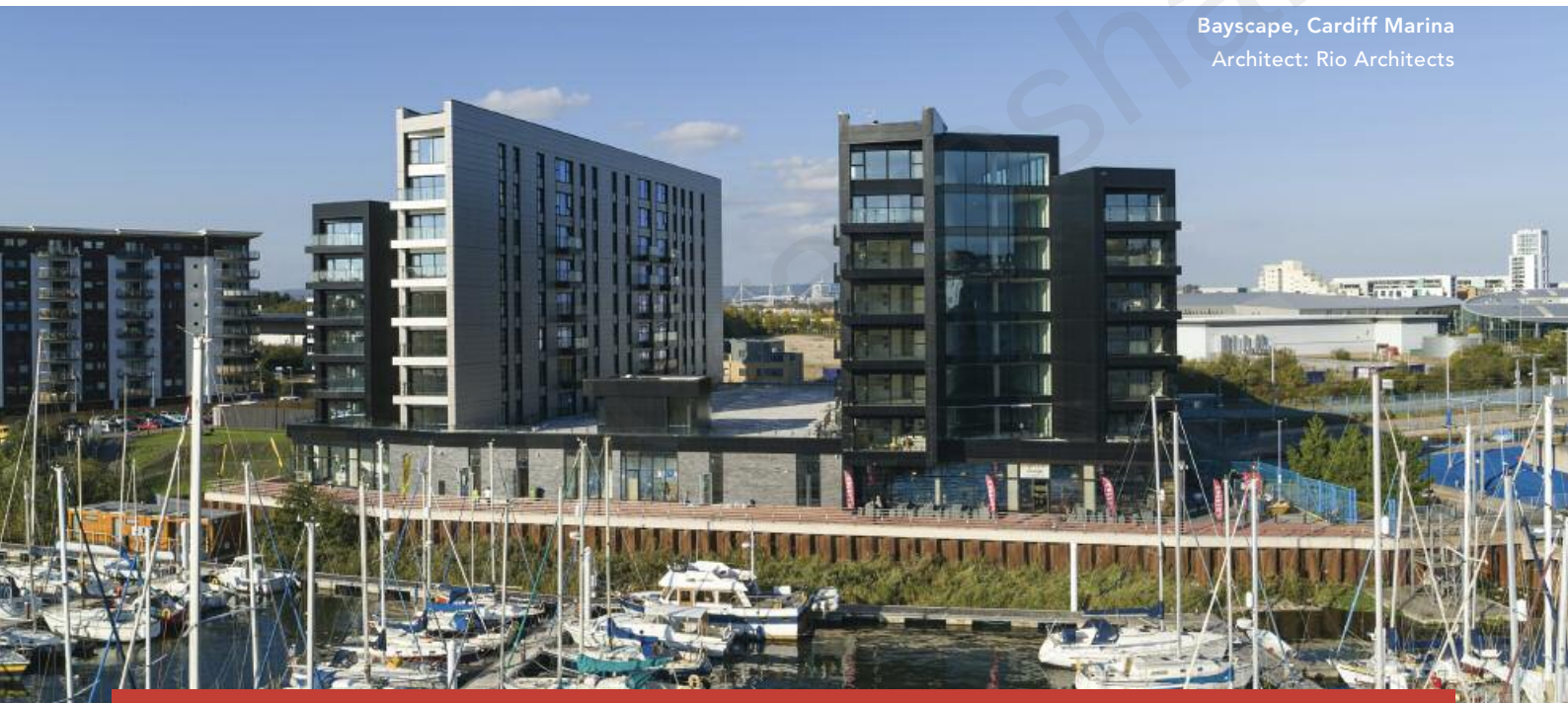
Security*

The AA®720 Tiltturn Window has been independently tested to PAS 24:2016.

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



*** Corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A for non-domestic schemes. www.thegreenguide.org.uk Element Number 1231500007*



Bayscape, Cardiff Marina
Architect: Rio Architects

Tiltturn Product Selector

Performance	AA®720 Tiltturn*	AA®543 Tiltturn
Weather Performance (BS 6375)	■	■
Security to PAS 24:2016	■	■
Uw (Double Glazing)	1.4 W/m²K	1.6 W/m²K
Uw (Double Glazing with warm edge spacer)**	1.3 W/m²K	1.4 W/m²K
Uw (Triple Glazing)	1.1 W/m²K	1.3 W/m²K
Uw (Triple Glazing with warm edge spacer)***	1.0 W/m²K	1.1 W/m²K
Special Feature		
BRE Green Guide Rating°	A	A+
Design Features		
Dual Colour Option	■	■
Composite Windows	■	■
Ribbon Windows	■	■
Punched Out Openings	■	■
Triple Glazing	■	■+
Infills:	upto 56mm	upto 39mm
Standard Hardware Groove	■	■
Multi-Point Locking	■	■
100mm Restriction	■	■
Trickle Ventilation	■	■
Locking Handles	■	■
Butt Hinges	■	■
Multi-function Handle	■	■
Variable Angle Corner Post		■
System Depth		
54mm		■
72mm	■	
Maximum Window Sizes•		
	upto	upto
Tiltturn only•	1600mm(W) & 2100mm(H)	1600mm(W) & 2200mm(H)
Side Hung•	1600mm(W) & 2100mm(H)	1600mm(W) & 2200mm(H)
Bottom Hung•	2000mm(W) & 1200mm(H)	2369mm(W) & 836mm(H)
Applications		
New Build	■	■
Refurbishment	■	■
Heavy Commercial	■	

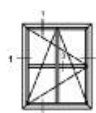
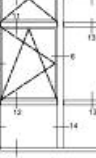
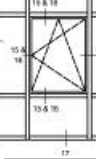
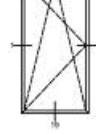
Notes:
* Based on the AA®720 HI Reflex
** Window Energy Ratings and U-values based on CEN size windows (1230mm x 1480mm) using 1.0 W/m²K double glazing with warm edge (0.048 W/m²K) spacer.
*** U-values based on CEN size windows (1230mm x 1480mm) using 0.6 W/m²K triple glazing with warm edge (0.043 W/m²K) spacer.
+ Optional/Limited
• Height and Width Limitations vary dependant on glass weights and hardware requirements – please check with the Technical Services Department
◦ Corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A and A+ for non-domestic schemes. www.thegreenguide.org.uk Element Number 1231500011 (A+) Element Number 1231500007 (A)



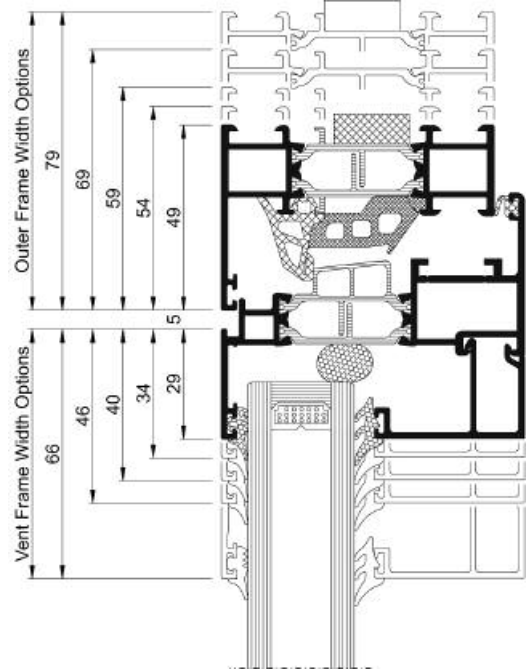
AA®720 Tiltturn Window Applications

Typical Elevations

Full details can be downloaded from our website www.kawneer.co.uk

Elevation	Title	Website CAD ref. no.
	1 Tiltturn - Head & Jamb Wall Connection	H1-11
	1 Tiltturn - Head & Jamb Wall Connection Adaptor	H1-12
	2 Tiltturn - Cill detail	H1-13
	3 Tiltturn - Vent Muntin	H1-30
	1 Tiltturn - Head & Jamb Wall Connection	H1-11
	2 Tiltturn - Cill detail	H1-13
	4 Fixed Light - Head & Jamb	H1-14
	5 Fixed Light - Cill Detail	H1-15
	6 Tiltturn Vent/Fixed Light - Muntin	H1-17
	1 Tiltturn - Head & Jamb Wall Connection	H1-11
	1 Tiltturn - Head & Jamb Wall Connection Adaptor	H1-12
	2 Tiltturn - Cill Detail	H1-13
	7 Tiltturn Vent/Tiltturn Vent - Muntin	H1-18
	1 Tiltturn - Head & Jamb Wall Connection	H1-11
	1 Tiltturn Head & Jamb Wall Connection Adaptor	H1-12
	2 Tiltturn - Cill Detail	H1-13
	8 Tiltturn Vent/Turn Only Vent Rebate Adaptor	H1-20
	9 Tiltturn Vent/Turn Only Vent Rebate Adaptor	H1-21
	1 Tiltturn - Head & Jamb Wall Connection	H1-11
	2 Tiltturn - Cill Detail	H1-13
	4 Fixed Light - Head & Jamb	H1-14
	5 Fixed Light - Cill Detail	H1-15
	10 Tiltturn Vent/Fixed Light - Coupling	H1-27
	1 Tiltturn - Head & Jamb Wall Connection	H1-11
	4 Fixed Light - Head & Jamb	H1-14
	6 Tiltturn Vent/Fixed Light - Muntin	H1-17
	11 Tiltturn Vent/Bottom Hung Vent - Muntin	H1-23
	12 Tiltturn Vent Cill/Fixed Light - Muntin	H1-24
	13 Fixed Light - Horizontal Muntin	H1-25
	15 Window Curtain Wall, Muntin/Vent	H1-31
	16 Window Curtain Wall, Muntin/Integral Vent	H1-34
	17 Window Curtain Wall, Cill Detail	H1-32
	18 Window Curtain Wall, Head & Jamb Detail	H1-33
	1 Tiltturn - Head & Jamb Wall Connection	H1-11
	19 Barrier Free Balcony Door, Threshold Detail	H1-33

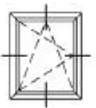
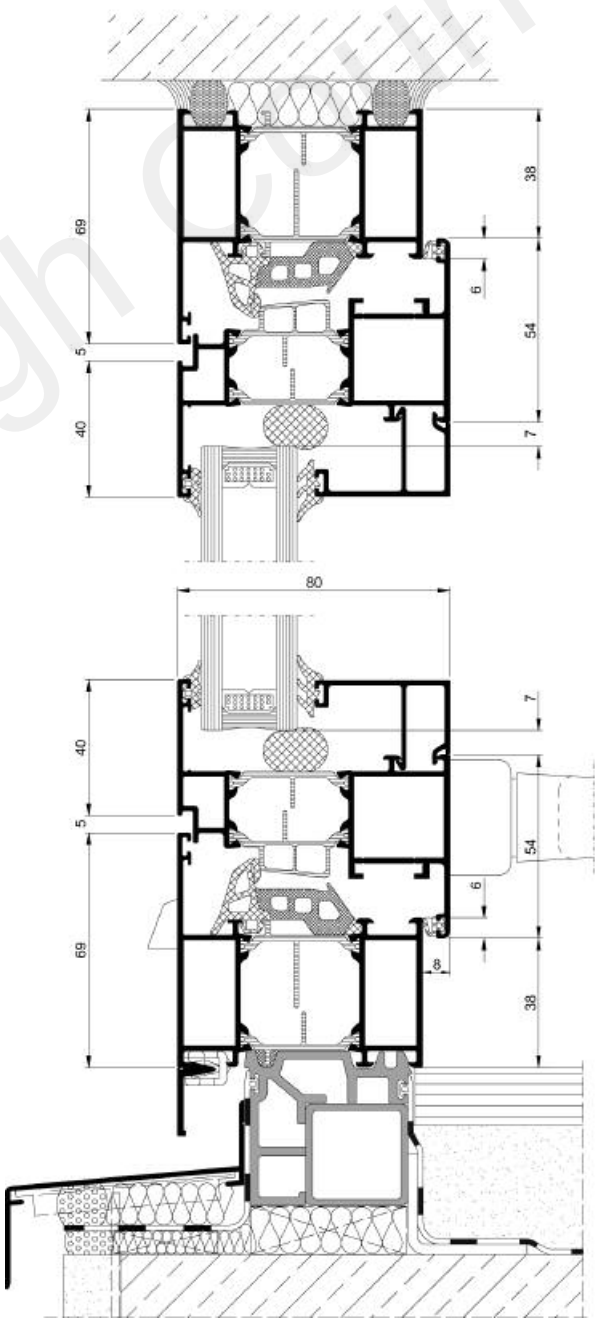
Frame and Vent Size Options



AA®720 Tiltturn Window

Full details can be downloaded from our website www.kawneer.co.uk

Head and Cill Detail



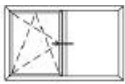
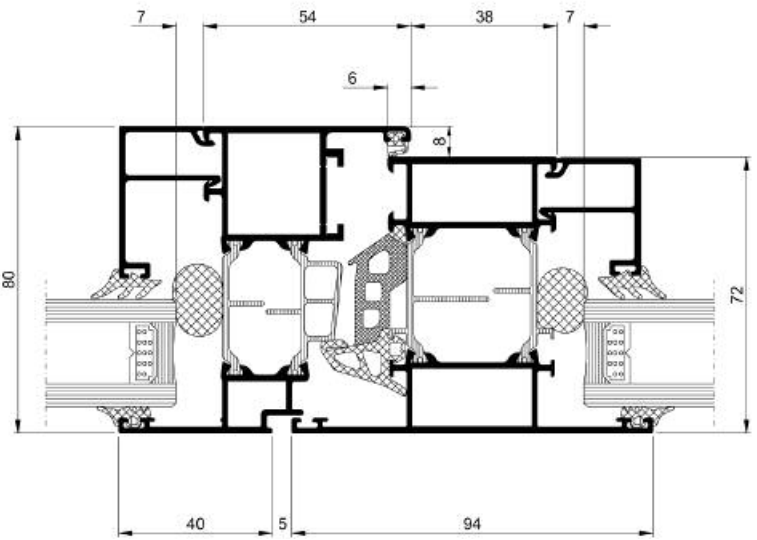
H1-11 and H1-13



AA®720 Tiltturn Window

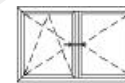
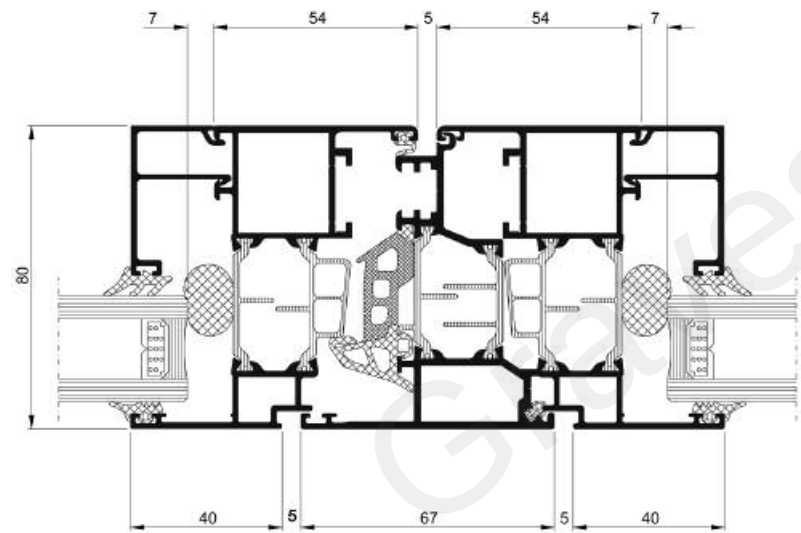
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Standard Muntin/Vent Detail



H1-17

Standard, Rebate Adaptor/Vent/Vent Detail

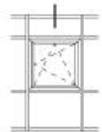
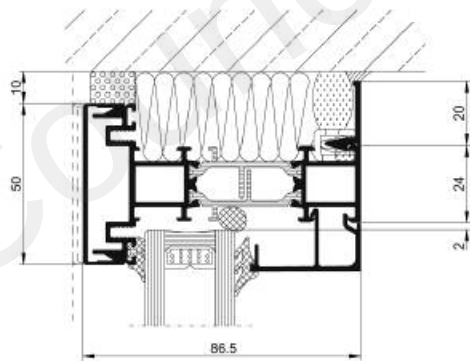


H1-21

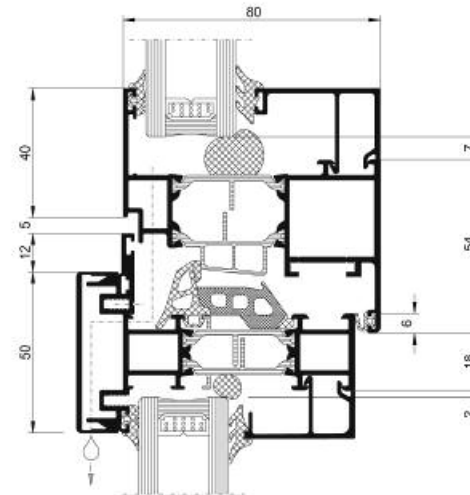
AA®720 Tiltturn Window

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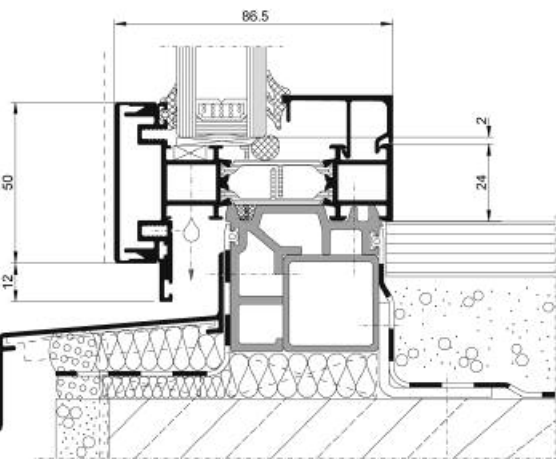
Window Curtain Wall - Head, Muntin & Cill Detail



H1-33
Head



H1-31
Muntin with
Vent Above



H1-32
Cill