

GT70 Slimline Renovation Window

Introduction

The 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.

- Product Features and Benefits**
- Fine sightline characteristics of steel windows providing a suitable replication for steel windows with additional benefits associated with aluminium, such as the high strength to weight ratio
 - Suitable for composite and ribbon windows
 - Option for open out or open in to meet your project design requirements and user flexibility
 - A range of structural and coupling mullions available
 - Special bevelled beads, or feature caps, add a unique sculptured appearance to the building
 - Concealed drainage system to enhance the building's aesthetics
 - Accommodates glazing up to 54mm for inside glazed or 33mm for outside glazed

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.

- Configurations**
- The GT70 Slimline Renovation Window offers the following design configurations:
- Outward Opening
- Top Hung
 - Side Hung
- Inward Opening
- Tiltturn
 - Tiltturn (Side Hung)
 - Tiltturn (Bottom Hung)

Glazing

Inward opening windows are internally glazed and outward opening windows are externally glazed with a maximum glass thickness of 54mm for inside glazed and 33mm for outside glazed.

Independently Weather Performance Tested to BS 5368: 1993

	Air Infiltration	Watertightness	Wind Resistance
GT70 Slimline Renovation (Open In)	600 Pa	600 Pa	1200 Pa (Windload)* 1750 Pa (Safety)*

* This is dependant upon correct mullion and transom selection to suit span and spacing per project

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

Woodhouse Mill, Todmorden
Architect: Ramsden Barrett Architects



Product Selector

Performance	GT70	AA®720 Renovation "TIP"
Weather Performance	■ (BS 5368)	■ (EN 14351)
Security to ENV 1627		■
Uw (Double Glazing)	2.1 W/m²K	1.5 W/m²K
Uw (Double Glazing with warm edge spacer)*	1.9 W/m²K	1.3 W/m²K
Uw (Triple Glazing)	1.8 W/m²K	1.1 W/m²K
Uw (Triple Glazing with warm edge spacer)**	1.6 W/m²K	1.0 W/m²K
Special Features		
BRE Green Guide Rating°	A	A
Design Features		
Dual Colour Option		■
Composite Windows	■	■
Ribbon Windows	■	■
Punched Out Openings	■	■
Triple Glazing	■+	■+
Infills:	upto 54mm	upto 47mm
Standard Hardware Groove	■	■
Multi-Point / Single Sided Locking Options	■	■
100mm Restriction	■	■
Trickle Ventilation	■	■
Locking Handles	■	■
Folding Openers	■ (Casement only)	
Cockspur Handle	■ (Casement only)	
Friction Hinges	■ (Casement only)	
Butt Hinges	■	■
System Depth		
70mm	■	
72mm		■
Maximum Window Sizes•		
Projected Top Hung•	1600mm(W) & 1500mm(H)	
Projected Side Hung•	840mm(W) & 1600mm(H)	
Top Hung with Butt Hinges•	1600mm(W) & 1600mm(H)	
Side Hung with Butt Hinges•	900mm(W) & 1600mm(H)	
Tiltturn•	1600mm(W) & 2000mm(H)	1400mm(W) & 2100mm(H)
Tiltturn (Side Hung)•	1400mm(W) & 2000mm(H)	1400mm(W) & 2100mm(H)
Tiltturn (Bottom Hung)•	1400mm(W) & 2000mm(H)	2000mm(W) & 1200mm(H)
Applications		
New Build	■	■
Refurbishment	■	■

Notes:

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

** U-values based on CEN size inward opening (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 for non-domestic schemes. www.thegreenguide.org.uk Element Number 1231500007



GT70 Slimline Renovation Window Applications

Typical Elevations

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

Outside Glazed

Elevation		Title	Website CAD ref. no.
	1	Vertical section - fixed lights, head detail	6.01
	2	Vertical section - fixed lights, cill detail	6.01
	3, 4	Horizontal section - fixed lights, jamb detail	6.02
	5, 5a, 6, 6a	Top hung, side hung head and cill details	6.03
	7, 7a, 8, 8a	Horizontal section - top hung and side hung, jamb details	6.04
	10	Horizontal section - top hung	6.06
	11	Vertical section - top hung	6.07
	12	Horizontal section - fixed light	6.08
	13	Vertical section - top hung over side hung	6.09
	16, 16a	Head detail	6.12
	17	Cill detail	6.13
	18, 19	Jamb detail	
		TILT TURN	
		SIDE HUNG	

Inside Glazed

Elevation		Title	Website CAD ref. no.
	20, 21	Bottom hung head and cill details	6.14
	22	Bottom hung - jamb detail	6.15
	23, 24	Head and cill detail - fixed	6.16
	25, 26	Jamb detail - fixed	6.17
	35	Composite window	6.22
	38, 39	Capping examples	6.25
	40, 41	Capping examples	6.26
	42	Capping example	6.27
	43, 44	Capping examples	6.28
	45, 46	Capping examples	6.29
	47, 48	Capping examples	6.30
	49	Into curtain wall top hung	6.31



GT70 Slimline Renovation Open In



GT70 Slimline Renovation Open Out

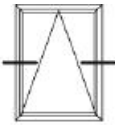
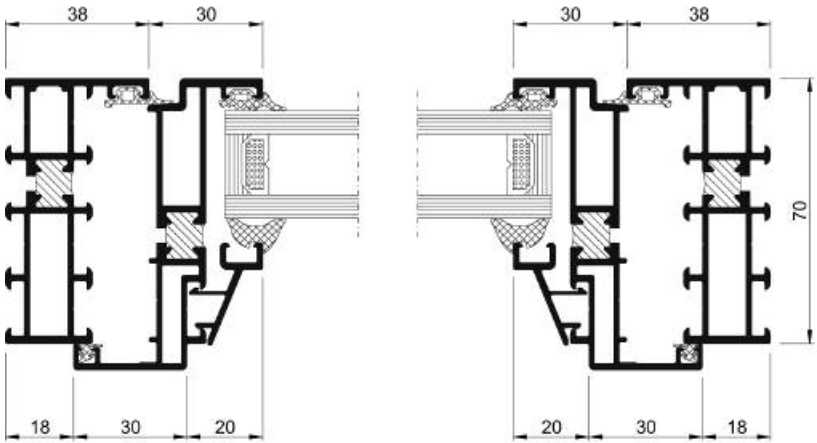


GT70 Slimline Renovation Window

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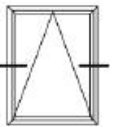
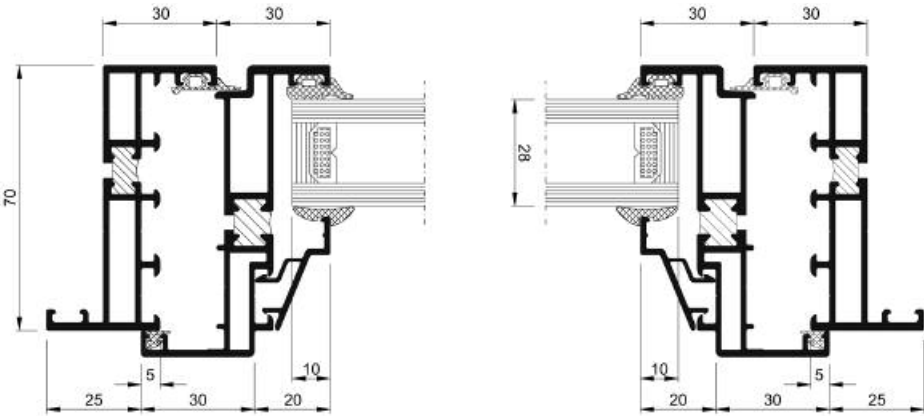
Outside Glazed

Jamb Detail (Minimum Outer Frame)



Top Hung

Jamb Detail (Odd Leg Outer Frame)



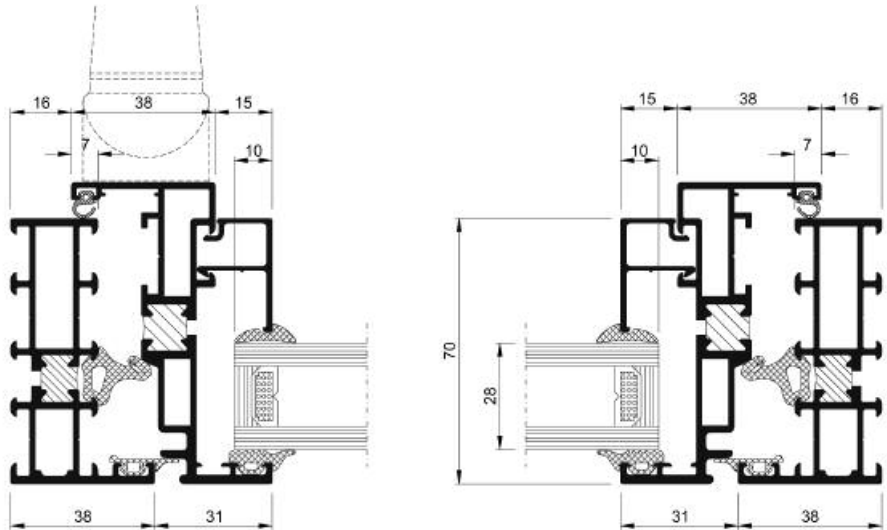
6.04
Top Hung

GT70 Slimline Renovation Window

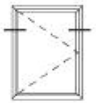
Full details can be downloaded from our website www.kawneer.co.uk

Inside Glazed

Jamb Detail (Tilt Turn & Side Hung)



6.13
Tilt Turn



6.13
Side Hung

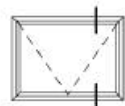
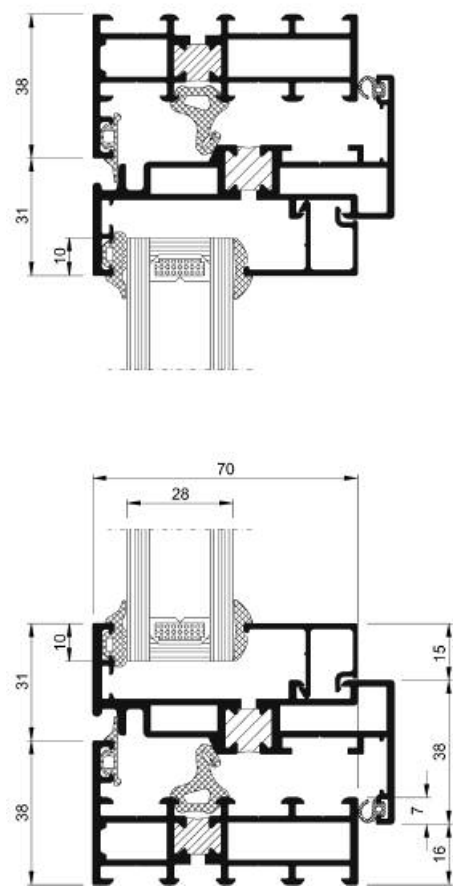


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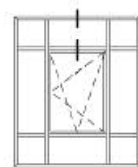
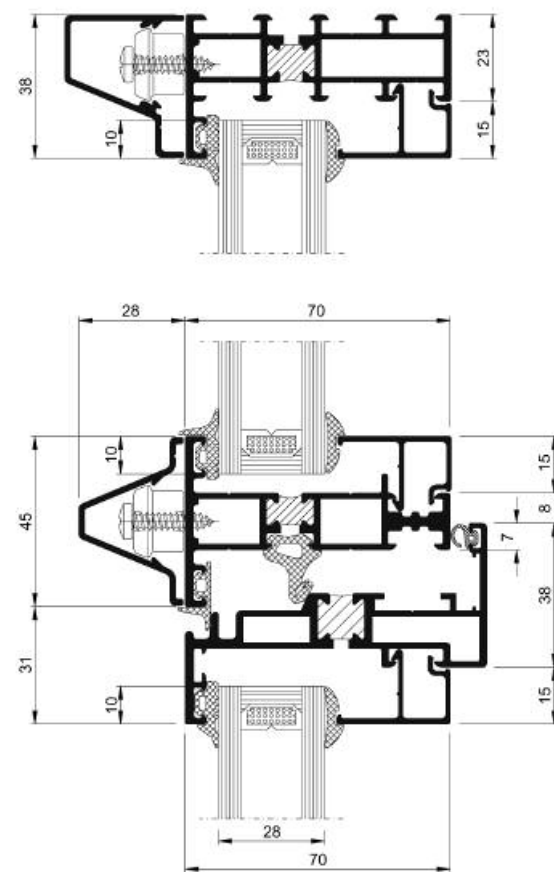
Inside Glazed

Head and Cill Details



6.14
Bottom Hung

Capping Detail



6.25

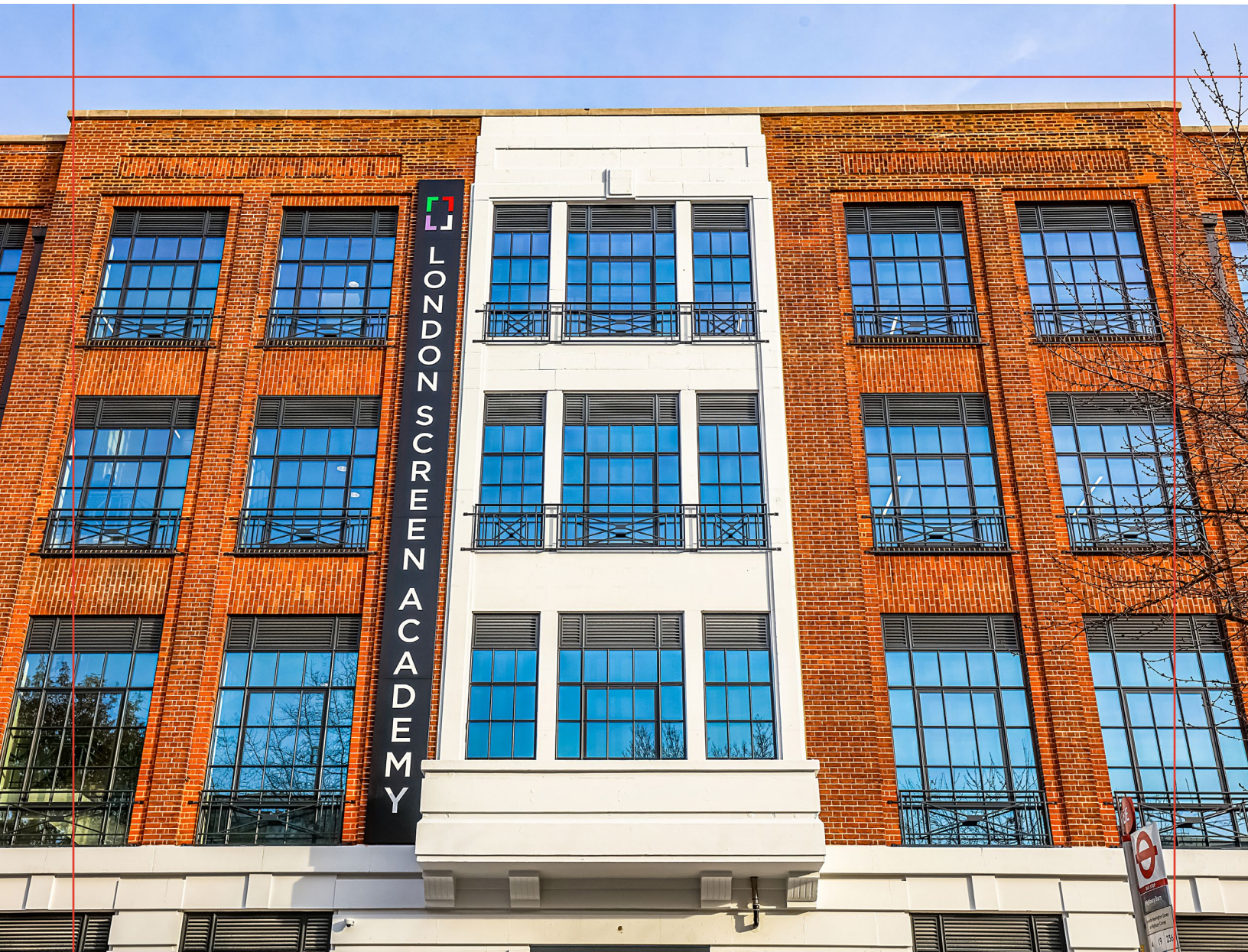


Axminster Building, Glasgow
Architect: ZMArchitecture



Case Study: London Screen Academy, Islington

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Windows, curtain walling and doors feature on the new London Screen Academy

Architectural glazing systems by Kawneer, including aluminium heritage-style GT70S windows appropriate for the conservation area, have helped to transform the façade of an old radio and television factory into the new four-storey London Screen Academy building at Highbury Grove in Islington, north London.

Building: London Screen Academy

Location: Islington, London

Architect: Architecture Initiative

Main Contractor: Willmott Dixon

Installer: JPJ Installations

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London Screen Academy, Islington

Kawneer glazing systems are an Academy winner

Kawneer's GT70S slimline renovation open-in windows were the "focal new element" of the renovation of the façade of the four-storey building at Highbury Grove in Islington, north London, where Kawneer's AA®100 zone-drained curtain walling and series AA®190 TB entrance doors also feature.

The GT70S windows with narrow sightlines were installed over 12 weeks by a team of eight from specialist sub-contractor and Kawneer dealer JPJ Installations throughout the 8,050m² building, with the AA®100 curtain walling, which also has narrow 50mm sightlines, used on the rear elevation and the series AA®190 TB severe-duty welded doors used on the main entrance.

This cutting-edge new free school by the Department for Education provides world-class film industry focused vocational training, including behind-the-camera roles, costume design, production management, distribution and marketing, alongside a broader curriculum, for 17 to 19-year-olds.

Procured through the Southern Construction Framework, main contractor Willmott Dixon Interiors worked closely with the design team from Architecture Initiative to deliver the project over 13 months, ready for the first intake of students in September 2019. Sponsored by Working Title Films, the end user is the Day One Trust.

The building, also formerly a London Metropolitan University facility, was subject to a dramatic internal reconfiguration, with the core of the deep-plan multi-storey industrial space demolished and replaced with a steel-framed three-storey film production studio and supporting facilities. The general teaching and workshop spaces wrap around the centre core, responding to and utilising the existing external envelope which has remained largely unaltered in appearance. The insertion of a new rooftop courtyard with film theatre and extensive views over London completes the arrangement and provides informal social space for staff and students.

Architecture Initiative's brief was to design a creative education facility that would provide an inspirational learning environment alongside specialist technical facilities to train students in all aspects of digital and film technologies.

The practice's Lee Mainwaring said: "We combined the natural features of the existing building – large windows, generous floor-to-ceiling heights, exposed finishes – with state-of-the-art new technical training facilities based on extensive research and analysis of professional film studios, to create a unique building for students and the wider community.

"The building is in a conservation area so any works to the external façade were carefully considered. We also needed to work with current building regulations for schools to ensure we could provide a safe learning space but which also enabled us to make the most of the existing building and provide professional standard technical spaces. The local authority planners were really happy with the upgrades to the existing building façade which had been unsympathetically altered in previous times."

He added: "The external windows are the focal new element of the façade renovation. The Kawneer window system, which was offered by the contractor as a more cost-effective alternative, effectively met the technical requirements needed whilst achieving a 1930s warehouse "Crittall" window lookalike. The windows have greatly enhanced the existing façade as well as referring to the building's history with its design. The final product was of great quality and in keeping with the design concept."

He concluded: "The façade has been visually transformed, in part through the addition of the new windows that are perfectly in keeping with the heritage of the building. From a previously dilapidated appearance, the building has been rejuvenated. We are extremely happy with such an incredible looking product."



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Please contact our Architectural Services Team if you have a project you would like to discuss: Tel: 01928 502604 / Email: kawneerAST@arconic.com

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