



Scudo
Shield Your Home

Are you planning to enhance your construction project with the smart solutions of the Scudo System?

We are here to provide expert guidance and specialized support to integrate smart solutions tailored to meet your needs. Let us help you make the right decision for your future projects.

Contact us at
+973 1776 0579
to explore your options!



اطلس المنيوم
Atlas Aluminum

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Tubli, Kingdom of Bahrain

هل تخطط لتعزيز مشروعك
الإنسائي باستخدام الحلول الذكية
لنظام سكودو؟

نحن هنا لتقديم الإرشاد والدعم المتخصصين
لتكامل الحلول الذكية المصممة خصيصاً لتلبية
احتياجاتك. دعنا نساعدك في اتخاذ القرار
المناسب لمشاريعك المستقبلية.

تواصل معنا على
+٩٧٣ ١٧٧٦ ٥٧٩
لاستكشاف خياراتك



اطلس المنيوم
Atlas Aluminum

**A new way
of understanding
windows & doors**



BACK COVER

FRONT COVER

قصة تطوير نظام Scudo

بعد دراسة دقيقة لاحتياجات السوق في عام ٢٠٢١، قررنا في شركة أطلس المنيوم تطوير نظام عزل حراري متقدم يناسب المناخ الصحراوي ويعزز كفاءة توفير استهلاك الطاقة. من هنا بدأت رحلتنا في تطوير نظام Scudo، الذي خضع للعديد من الاختبارات لضمان تلبية المتطلبات المتعددة لعملائنا ولتحديات البيئة المحلية.

على مدى ثلاث سنوات، عمل فريقنا المتخصص بجهد لتقديم الحل الأمثل. وبعد مرحلة من التجارب والتحديات، أصبح نظام Scudo جاهزاً لل إطلاق في عام ٢٠٢٤، ليكون الحل المثالي لتوفير الطاقة والأمان والحماية ضد الظروف المناخية القاسية.

The Story of Scudo System Development

After a thorough study of market needs in 2021, we at Atlas Aluminum decided to develop an advanced thermal insulation system tailored to the desert climate and designed to enhance energy efficiency. Thus, our journey began with the development of the Scudo System, which underwent numerous tests to ensure it meets the diverse needs of our customers and the challenges posed by the local environment.

Over the course of three years, our specialized team worked diligently to create the ideal solution. After a series of trials and updates, the Scudo System was ready for launch in 2024, providing the perfect solution for energy savings, security, and protection against harsh weather conditions.



International Partners



REGUITTI

FritsJurgens



GIESSE



JATEC



Schlegel

TECHNOFORM

Scudo System - Designed for Today and Beyond

The Scudo System, developed by Atlas Aluminum, a company specializing in the manufacturing of aluminum doors, windows, and components, was created to meet the demands of extreme climates. This innovative solution, designed in 2024, offers superior thermal insulation, resisting heat, humidity, wind, and dust, ensuring high energy efficiency.

Atlas Aluminum designs customized solutions for its clients according to the "Guidelines for Thermal Insulation Implementation in Buildings" issued by the Electricity and Water Authority (EWA). Reports from Bahrain have shown that more than 65% of energy consumption is attributed to air conditioning systems, with windows and glazed surfaces being the primary points of heat transfer through conduction and radiation. The Scudo System addresses this challenge with advanced thermal insulation, significantly reducing energy consumption, making it ideal for regions with high cooling costs. Its robust structure also provides excellent security and protection against severe weather conditions, and the aluminum windows have been tested to the latest industry standards.

In addition to performance, the Scudo System offers a high degree of customization, with a variety of sizes, shapes, and colors, as well as options for inward and outward openings. Hidden fittings and accessories allow architects to create elegant and sophisticated designs.

With the Scudo System, you are not just investing in windows and doors but in a future-proof solution that combines aesthetics, functionality, and sustainability, designed to withstand the demands of today's climate and beyond.

نظام Scudo - مصمم للبيئة وما بعده

نظام Scudo، الذي تنتجه شركة أطلس المنيوم، وهي شركة متخصصة في تصنيع الأبواب والنوافذ الألومينيوم وتصنيع مكونات ومنتجات الألمنيوم، تم تطويره لتلبية المتطلبات المناخية القاسية. هذا الحل المبتكر، الذي تم تصميمه في عام ٢٠٢٤، يوفر عزلاً حرارياً متفوقاً مقوامة الحرارة والرطوبة والرياح، والاتربة، مما يضمن كفاءة عالية في توفير استهلاك الطاقة.

تقوم شركة أطلس المنيوم بتصميم حلول مخصصة لعملائها وفقاً لـ "إرشادات تنفيذ العزل الحراري في المباني" الصادرة عن هيئة الكهرباء والماء. وقد كشفت تقارير أجربت في البحرين أن أكثر من ٦٥٪ من استهلاك الطاقة يأتي من أنظمة التكييف، حيث تعتبر النوافذ والأسطح الزجاجية أهم النقاط فيما يتعلق بنقل الحرارة عن طريق التوصيل والإشعاع. يتميز نظام Scudo بتعامله مع هذا التحدي من خلال عزل حراري متقدم يقلل بشكل كبير من استهلاك الطاقة، مما يجعله مثالياً لمناطق التي تتطلب تكاليف تبريد عالية. كما أن هيكله القوي يوفر أماناً وحماية ممتازة ضد الظروف الجوية القاسية، وقد تم اختبار النوافذ المصنوعة من الألومينيوم وفقاً لأحدث المعايير الصناعية.

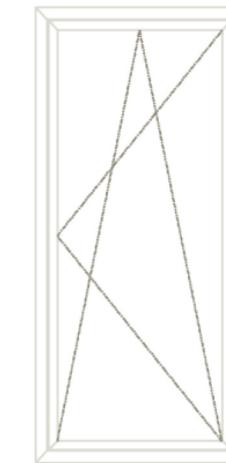
إلى جانب الأداء، يقدم نظام Scudo درجة عالية من التخصيص، مع مجموعة متنوعة من الأحجام والأشكال والألوان، بالإضافة إلى خيارات الفتح الداخلي والخارجي. كما تتضمن التجهيزات المخفية لابتسسوارات للتاريخ الفرعية للمهندسين المعماريين للتميز بالتصاميم الراقية والجميلة.

مع نظام Scudo، أنت لا تشترين فقط في نوافذ وأبواب، بل تستثمر في حل مسقبي يجمع بين الشكل والوظيفة والاستدامة. مصمم لتحمل متطلبات المناخ اليوم وما بعده.

Thermal Performance

Glazed surfaces should comply with the following

Glass Area	Max U-Value [W/m ² C]	Max Shading Coefficient	Min Light Transmission
Glass percentage less than or equal 40%	2.1	0.4	0,25
Glass percentage more than 40%	2.1	0.4	0,25
Skylights & Roof Openings	1.9	0.25	0,10
Ship fronts and Showrooms	1.9	0.76	-



Thermal transmittance of Scudo hinged window system

Simplified calculation method	Window Dimensions, L [L1+L2], H [H1+H2]	Mean U value of the frame
Projected widths	Glass U value	Mean U value of the window
Area of the glass	U values of Aluminium Section	
Area of Aluminium Profiles		

CALCULATION				
Window Dimension	H	Total window height [m]	L	2.400
				1.100
1	Projected Width [m]	0.117		
A [Frame and Shutter]	area [projected] [m ²]	0.764		
	thermal transmittance [W/m ² K]	2.940		
	Energy Transfer [W/K]	2.247		
Summary P1 - P3	Qf	Energy Transfer [W/K]		2.247
Frame Area P1 - P3	Af	Total Frame Area [m ²]		0.764
Mean U Value of Frame		[W/m²K]		2.94

Glazing		[m ²]	1.876
	Thermal Transmittance of Glass [W/m ² K]	1.000	
		[W/K]	1.876
Glass Edge - Technoform Warm Edge Spacer Type-2	Visible Glass Perimeter [m ²]	6.064	
	10077-1		0.040
Cumulated Results	Total Energy Flow [W/K]	4.365	
	Total area of the window [m ²]	2.640	
WINDOW	Mean thermal transmittance of total window	[W/m²K]	1.65

Thermal transmittance of Scudo lift and slide system

Calculation Type

Simplified Calculation Method

Project Data

Window Dimensions, L [L1+L2], H [H1+H2]
Glass U value

Results

Mean U value of the frame
Mean U value of the window

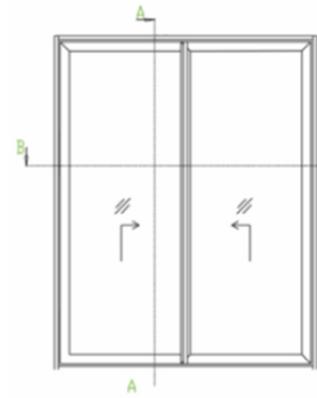
Data from Autocad

Projected widths
Area of the glass
Area of Aluminium Profiles

Calculation Sheet Data

U values of Aluminium Section

CALCULATION			
Window Dimension	H	Total window height [m]	
	L	Total window length [m]	
1	Projected Width [m]		
A [VERTICAL FRAME AND SASH SHUTTER INSIDE]	area [projected] [m ²]		
	Thermal Transmittance [W/m ² K]		
		[W/K]	1.876
B [VERTICAL FRAME AND SASH SHUTTER OUTSIDE]	Projected Width [m ²]		
	Area [Projected] [W/K]		
	Thermal Transmittance [m ²]		
	Energy Transfer [W/K]		
C [HORIZONTAL FRAME AND SASH SHUTTER OUTSIDE]	Projected Width [m]		
	area [projected] [m ²]		
	Thermal Transmittance [W/m ² K]		
	Energy Transfer [W/K]		
D [HORIZONTAL FRAME AND SASH SHUTTER INSIDE]	Projected Width [m]		
	Area [Projected] [m ²]		
	Thermal Transmittance [Wa/m ² K]		
	Energy Transfer [W/K]		
D [INTERLOCK]	Projected Width [m]		
	Area [projected] [m ²]		
	Thermal Transmittance [Wa/m ² K]		
	Energy Transfer [W/K]		
Summary P1 - P3	Qf	Energy Transfer [W/K]	
Frame Area P1 - P3	Af	Total Frame Area [m ²]	
Mean U Value of Frame			[W/m²K]
			1.87



Glazing	Gazing Area [Projected] [m ²]	5.571
	Thermal Transmittance of Glass [W/m ² K]	1.000
	Glass Energy Transfer [W/K]	5.571
Glass Edge - Technoform Warm Edge Spacer Type-2	Visible Glass Perimeter [m]	14.996
	As Per EN-ISO 10077-1	0.040
Cumulated Results	Total Energy Flow [W/K]	13.481
	Total area of the window [m ²]	7.200
WINDOW	Mean thermal transmittance of total window	[W/m²K]
		1.87

PRODUCT FEATURES

Hinged System

Characteristics

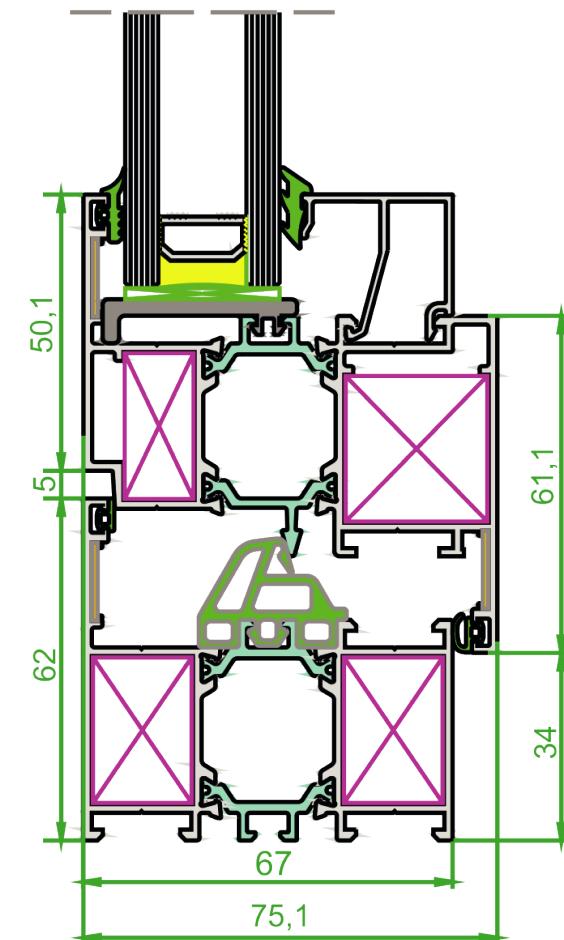
Frame depth	67mm
Vent depth	75mm
Frame Height	62mm
Vent Height	50mm

Performance

Air Tightness	600Pa
Water Tightness	600Pa
Wind Load	2.4KPa
Acoustics	+40dB
Thermal Insulation (avg.)	1.9 W/m ² .k U_w

Limitations

Max Height	3.5m
Max weight	200Kg to 400KG



Sliding System

Characteristics

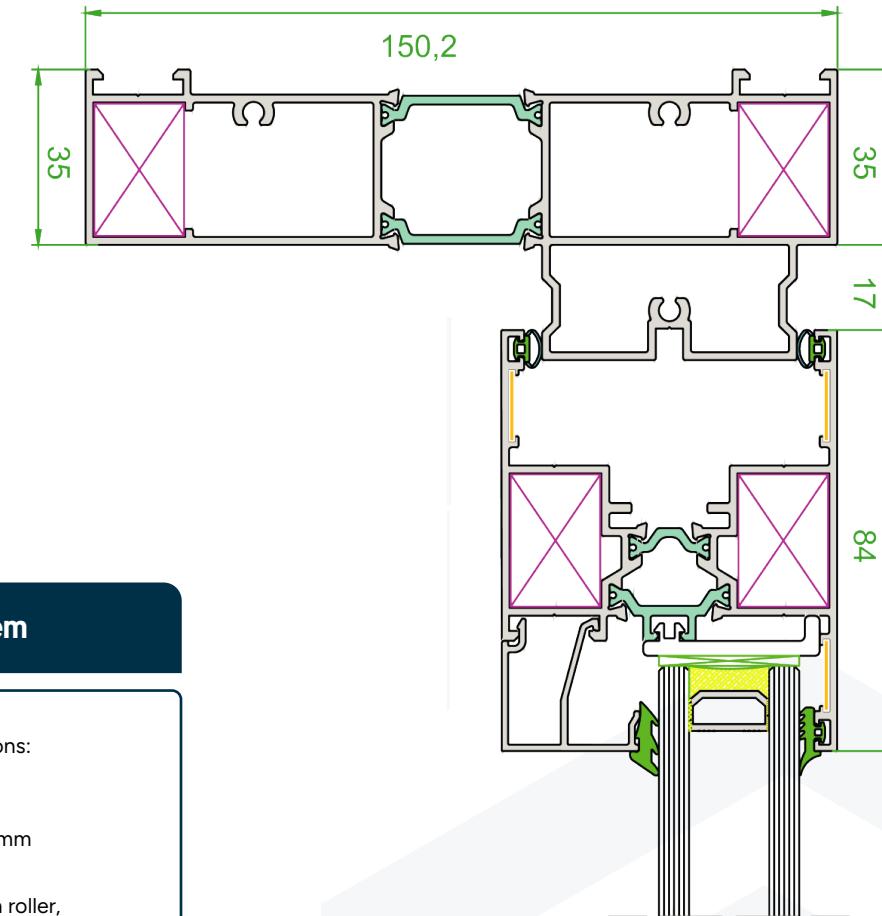
Weight and Height Specifications:

Euro Carve:

Weight: 150 Kg and 200 Kg
Heights: 700 mm up to 3500 mm

Non-Euro Carve:

Weight: 300 Kg (with an extra roller, can go up to 400 Kg)
Heights: 1800 mm to 3500 mm

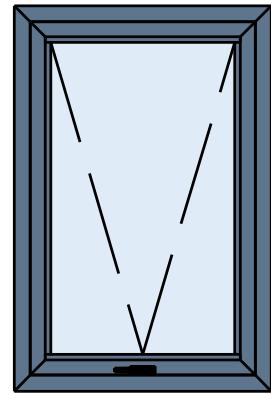


Characteristics:

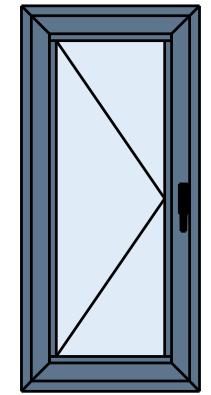
Frame Depth:	150.2 mm
Vent Depth:	84 mm
Frame Heights:	35 mm
Vent Heights:	66.8 mm

Limitations

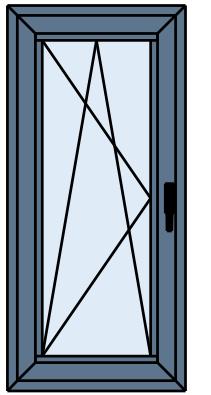
Max Height	3.5m
Max weight	200Kg to 400KG



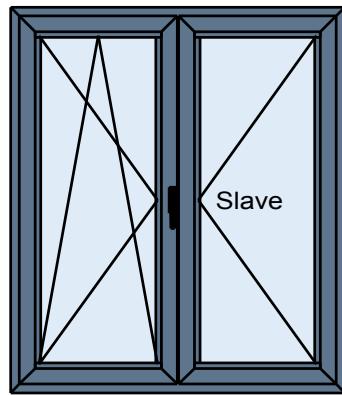
SCU SC75TH Standard
Top Hung Window
Outside Open



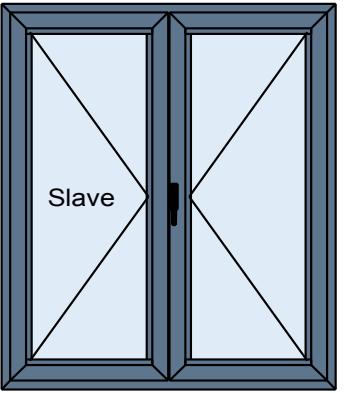
SCU SC75TH Standard
Side Hung Window
Right Side Handle
Inside Open



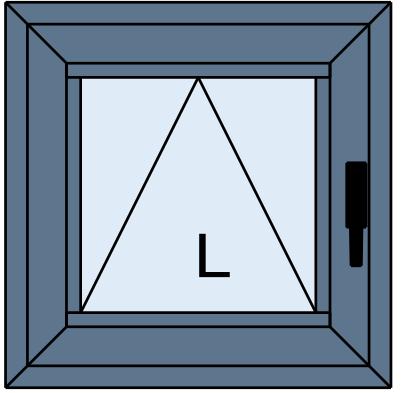
SCU SC75TH Standard
Tilt & Turn Window
Right Side Handle
In Side Open



SCU SC75TH Standard
French Casement Window
Left Side Tilt Turn,
Right Side Hung In Open



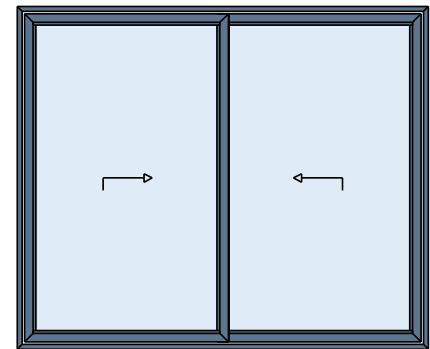
SCU SC75TH Standard
French Casement Window
Two Leaf Side Hung In Open



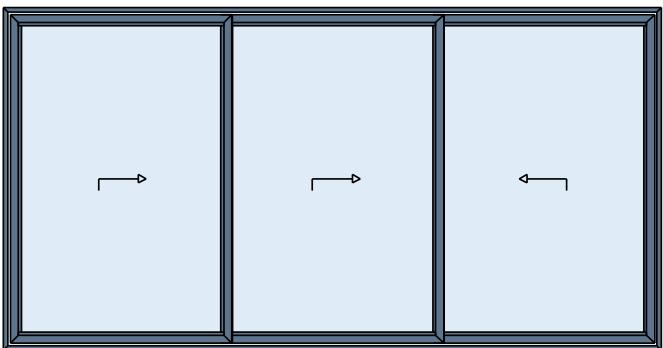
SCU SC75TH Standard
Bottom Hung Window
In Side Open



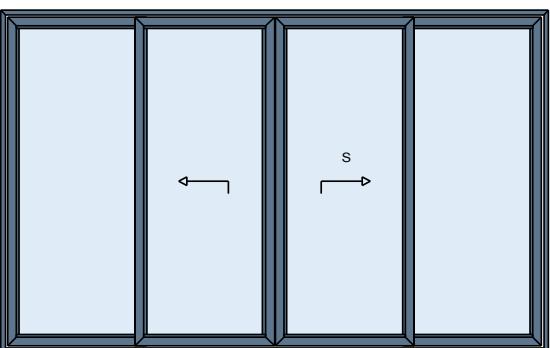
Because every
moment deserves
protection



SCU SCI50TH Standard
Two Rail Two Leaf Lift
and Slide Door



SCU SCI50TH Standard
Three Rail Three Leaf
Lift and Slide Door



SCU SCI50TH Standard
Two Rail Four Leaf Lift
and Slide Door



Windows that
**safeguard little
explorers**



Flexible solutions,
crafted beautifully

Design freedom,
functional ease

Great value,
superior features



Tilt and Turn
Mechanisms



Automation
Systems



Door Pivoting
Systems



Sliding
Systems



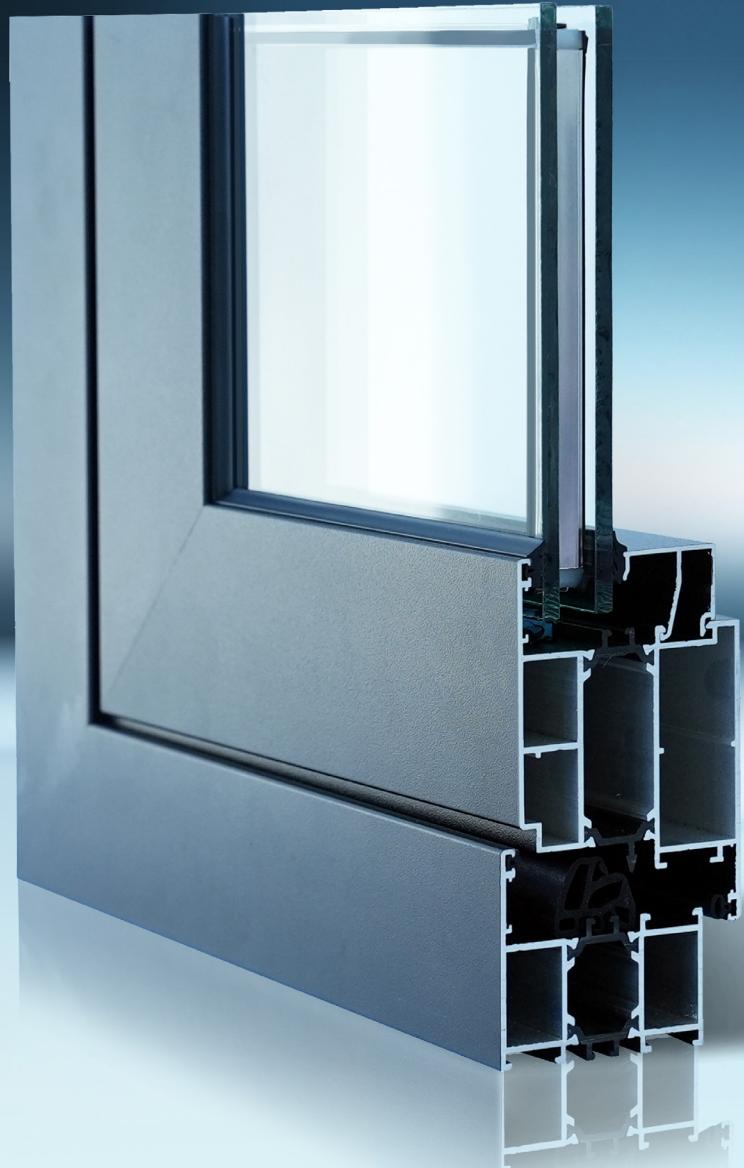
Flyscreen
Solutions



Hinged
Systems



اطلس المنيوم
Atlas Aluminum



Sleek, Secure, Seamless

