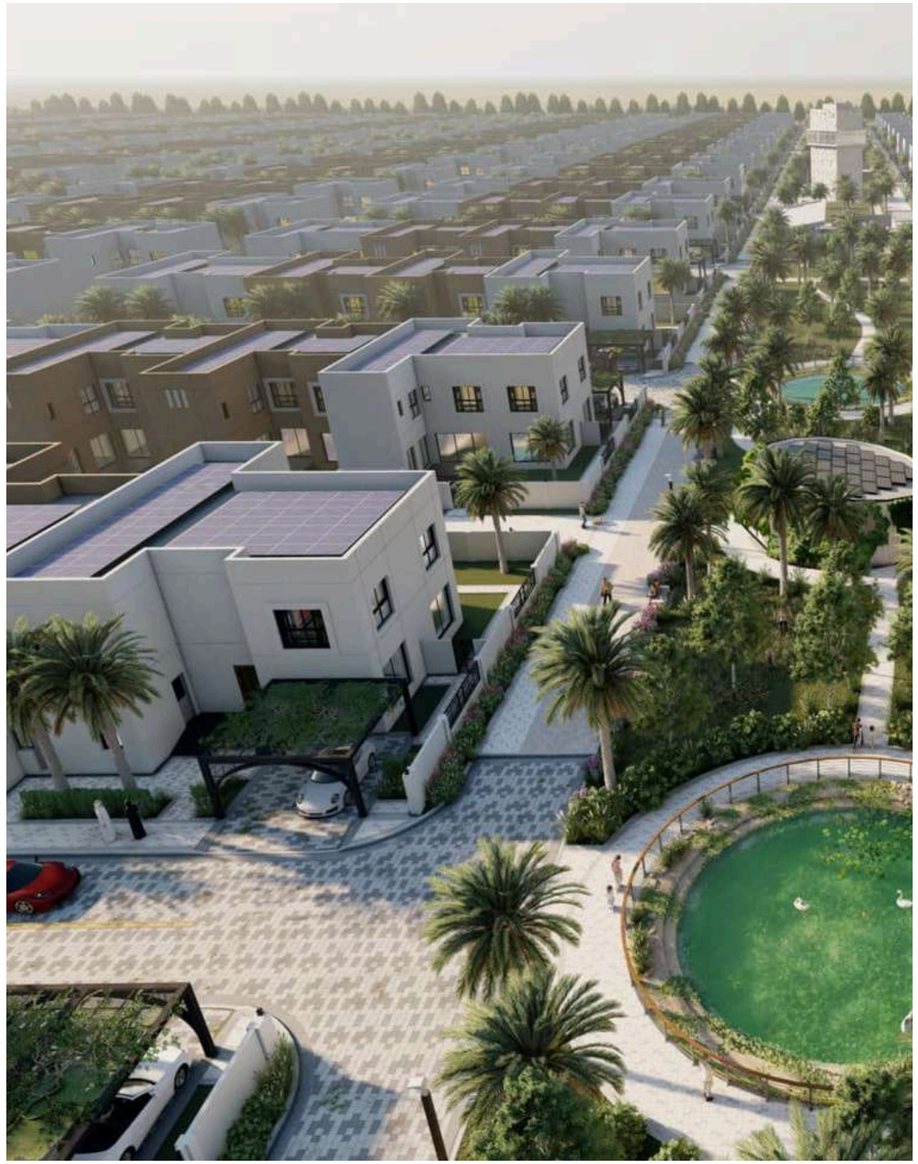
Stars glass & aluminium Co.

STARS GLASS & ALUMINIUM CO.

BUSINESS PROFILE

Stars Group of Companies, established in 1981, is a leading name in the UAE for aluminum, glass, and steel solutions. With decades of expertise, we specialize in providing architectural innovations, including aluminum profiles, glass services, and fabrication works, tailored to meet diverse client needs. Our commitment to quality and excellence has made us a trusted partner in construction and design industries.



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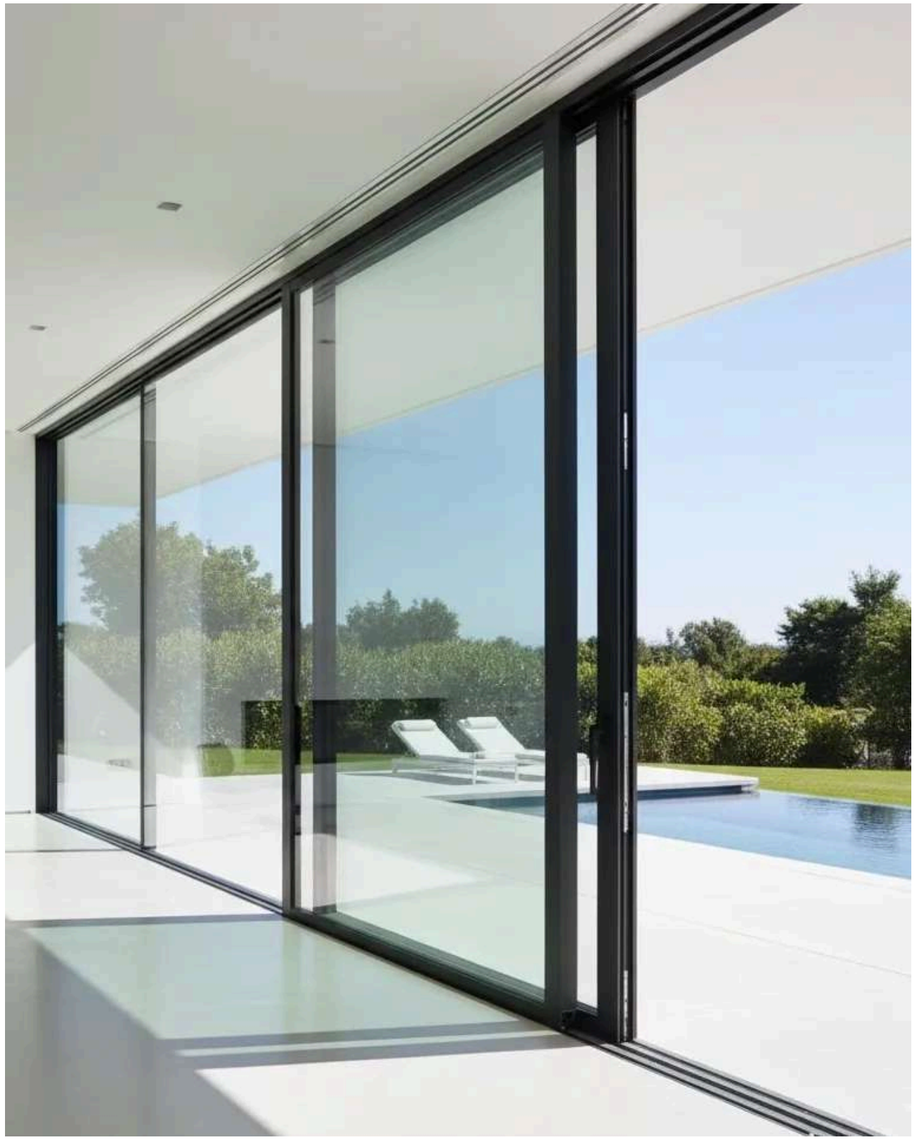

OVERVIEW

Stars Group of Companies is a trusted leader in the UAE, offering comprehensive solutions in aluminum, glass, and steel fabrication. Founded in 1981 as aluminum traders, the company has grown to provide innovative architectural services that meet the evolving needs of modern construction and design.

Our expertise spans aluminum profiles, cladding panels, glass solutions, rolling shutters, automatic doors, and steel fabrication, catering to a diverse range of projects from residential to commercial. With state-of-the-art technology and a skilled team, we deliver products and services that combine quality, durability, and aesthetic appeal.

At Stars Group, we are committed to excellence, sustainability, and customer satisfaction, ensuring we remain at the forefront of the industry while supporting the vision of our clients.

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Stars glass & aluminium Co.

Aluminium & Glass Fabrication

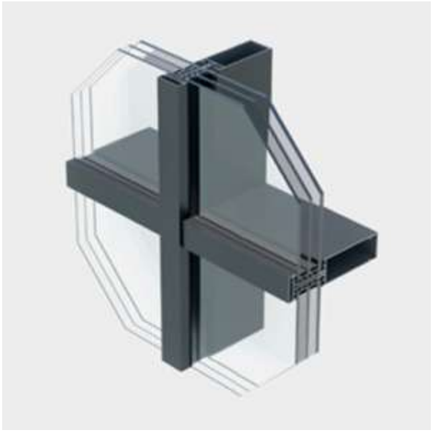
We have a wide range of aluminium products like aluminium sheets, sliding 105,montana 120,hinge TB600, curtain wall series50mm, vortex 60mm.

Aluminum Panels used for cladding building facades distinguished for their heat insulation & resistance to fire in addition to other features like multiple colors and carvings which up to nifty, easy & fast installation, high durability & low cost. It supports multiple types of new construction operations such as brick work, frame structures & metal structures home made in advance and house decorations for old buildings & energy saving buildings.

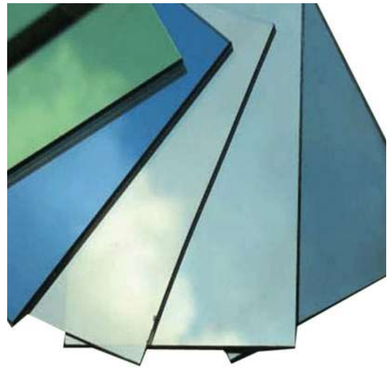
Our team are well-trained fabricator and installer of different system such as Gulf Extrusion, Schuco, Alumil ,Gutmann and much more.

We also have a variety of glass products & services to provide right solutions for any architectural requirement in the field of windows and doors and curtain wall facades and other building construction. Different thickness of glass with different brands as per our client’s requirement.

Aluminium profiles



Clear glass



Reflective glass

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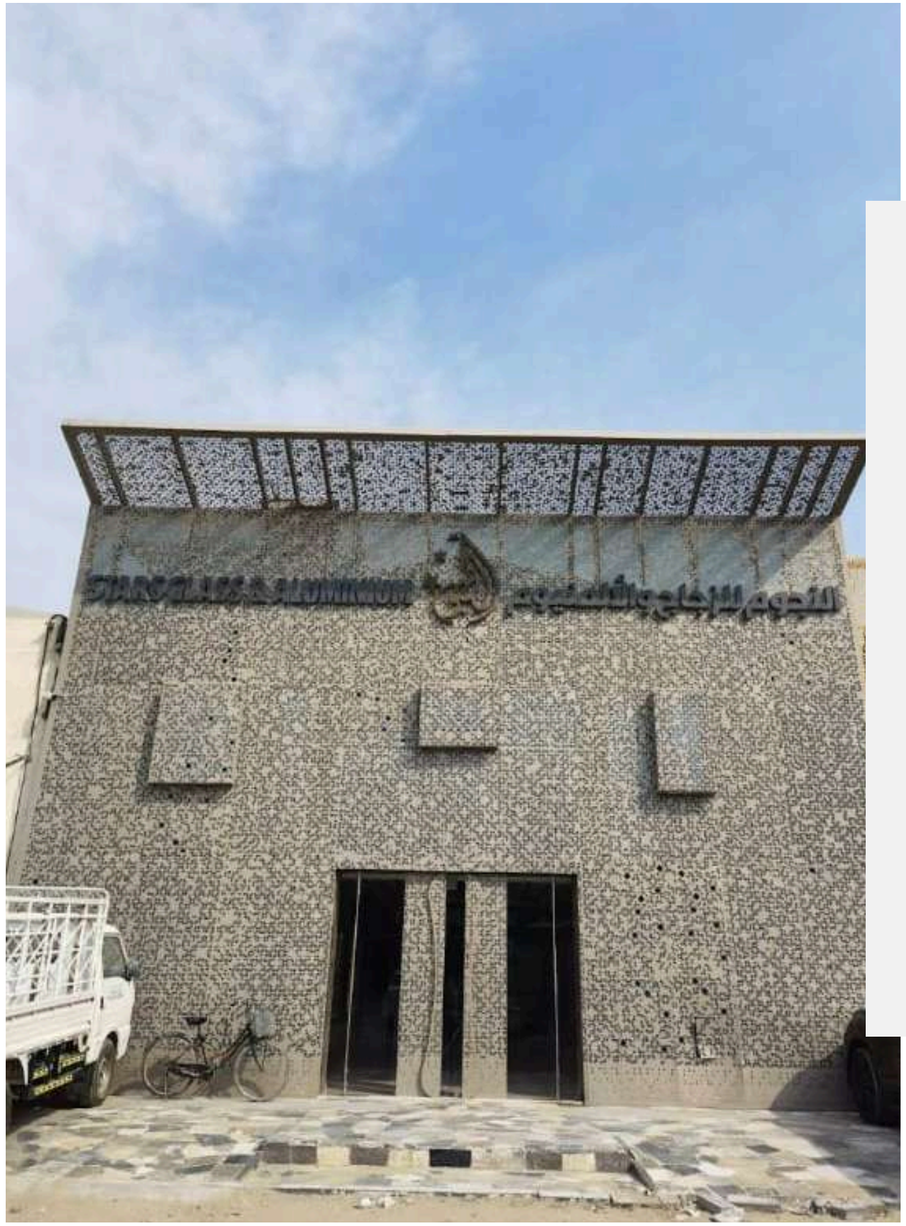

STARS GROUP - FABRFICATION

Aside from aluminum and glass fabrication, Stars Glass & Aluminium Co. has recently expanded into two major divisions: STAR DOORS ROLLING SHUTTER, specializing in automatic and manual rolling shutters with motors, and STARS SYSTEMS ALUMA GATE, exclusively focused on the supply and installation of automatic doors across the UAE. Our showroom showcases all our products and services, enabling customers to make the ideal choice with the assistance of our professional team.
Our showroom located in Sharjah industry 2 area

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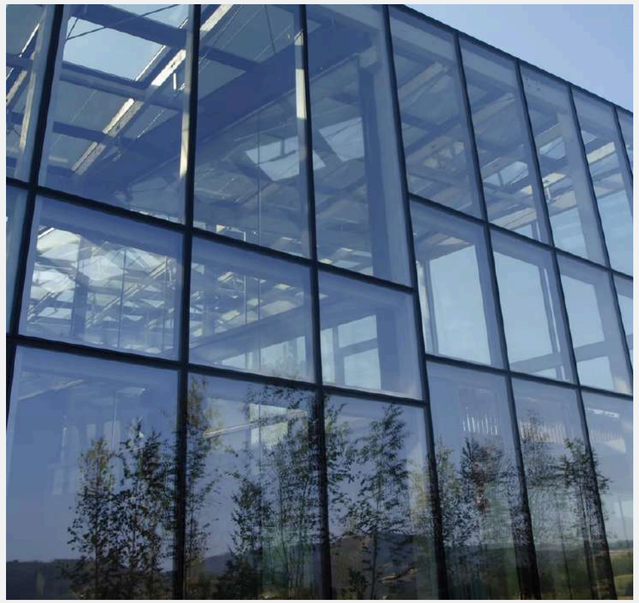
Stars glass & aluminium Co.

CURTAINWALL & WINDOW

Slim Curtainwall System

This advanced façade solution uses ultra-slim aluminium profiles to minimize the visible frame and maximize natural light. The result is a clean, modern, and elegant appearance that enhances transparency and visual openness, making it ideal for luxury villas, boutique hospitality, and contemporary architectural designs where aesthetics and refinement are key.



Normal Curtainwall System

This system incorporates clearly defined mullions and transoms that provide both structural stability and a strong architectural character. It offers excellent performance against wind load and climate conditions, making it a reliable choice for commercial buildings, business centers, and high-rise structures requiring durability, efficiency, and a distinct framed façade identity.

Concealed Tilt & Turn Window System

This window system combines a hidden frame design with a dual-function opening mechanism, offering both a seamless modern appearance and practical everyday use. When closed, the aluminium frame is concealed within the wall profile, giving the glass a clean, minimal, and elegant look from the outside. At the same time, the window can tilt inward for natural ventilation or turn inward for full opening, ensuring excellent sealing, insulation, and easy maintenance. This system is ideal for luxury residences, modern interiors, and projects where aesthetics and comfort are both priorities.

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Stars glass & aluminium Co.

SLIDING DOOR SYSTEM

Our sliding door systems are designed to combine smooth movement, wide openings, and modern architectural style. Whether the requirement is embedded floor tracks for a seamless indoor-outdoor transition, top-mounted systems to avoid floor cuts, or multi-track setups (2-track, 3-track, 4-track and more), we customize the configuration to suit your space and design vision.

We manufacture sliding systems that support both large panoramic glass panels for dramatic views and compact shutter sizes for smaller rooms, all engineered with premium rollers and high-strength aluminium profiles to ensure effortless opening, silent operation, and long-term durability.

Ideal for villas, balconies, terraces, lounges, and commercial fronts, our sliding doors create a flowing connection between inside and outside spaces, enhancing natural light and delivering a clean, elegant, and modern aesthetic that brings the exterior environment into your living space.

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FOLDING DOOR

Sliding Folding Doors allow maximum visibility without compromising strength and offer a highly modern look and feel. A minimum of maintenance is necessary to keep sliding folding doors looking good for years to come. All that’s required is the occasional wash-down and a dash of oil periodically. It ensures the maximum possible glass area and visibility to the outside when closed, yet are completely weatherproof and also offer excellent thermal efficiency.

LM

AUTOMATIC AUTOMATIC LINEAR SLIDING DOORS

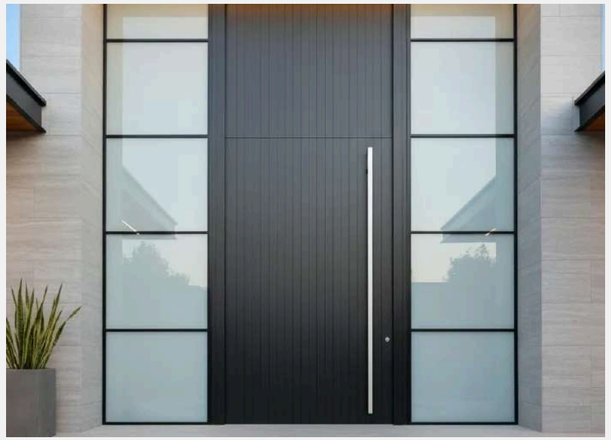
A stylish and modern cover design, a motor that ensures a virtually silent operation, a microprocessor that automatically controls the opening and closing speeds of the door, an energy saving power unit and new programming functions allowing for quick and simple installation, set-up and maintenance

ENTRANCE DOORS

Our entrance doors combine the latest in design, security, and functionality, offering an elegant solution for both commercial and residential properties. Made from high-quality materials such as Aluminum Composite Panels (ACP), they provide superior durability, weather resistance, and a sleek modern aesthetic. These doors are equipped with advanced features, including smart locks for keyless entry, ensuring enhanced security and convenience. Additionally, the inclusion of drop seals guarantees maximum insulation, preventing drafts and protecting against dust and heat. Customizable CNC patterns allow for unique designs, making these doors a perfect fit for any architectural style while maintaining high-performance standards.

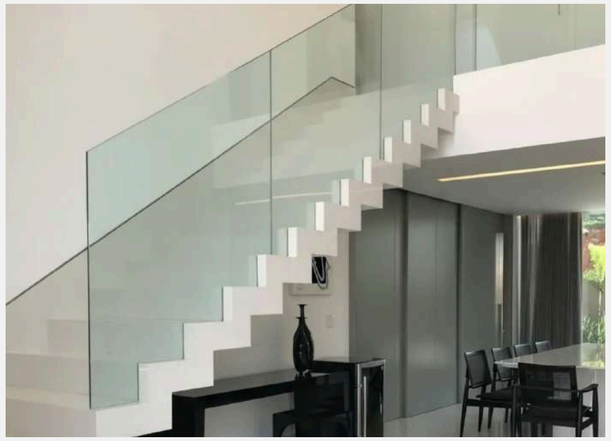
MAIN GATES

The gates of cast aluminium has become widely used for external gates of houses, schools, and government offices. It is the best alternative for iron gates with heavy weights that are subjected to corrosion and rust. Aluminium gates are resistant to corrosion, aging-resistant, rust resistant and less cost of maintenance after installation.



STAIRS & BALCONIES HANDRAILS

The staircase handrail is crafted from high-strength aluminum alloy, ensuring durability and stability. It is used in various applications, including aluminum rails, ladder balustrades, balcony balustrades, and architectural aluminum railings. We offer a wide range of designs, allowing you to select the perfect style for your home, each meticulously crafted by our skilled artisans.



PERGOLA

A pergola is an open outdoor structure used for displaying climbing plants or providing shade for seating areas. While traditionally made of wood, modern pergolas are now crafted from aluminum or similar materials, offering better weather resistance and requiring less maintenance. They can be large or small, adding beauty and functionality to any garden.

SLIDING BOUNDRYWALLS

Stars Group offers innovative sliding boundary walls integrated with advanced machinery for seamless and secure operation. These walls are motorized for smooth, automated movement, providing easy access and enhanced security. Constructed from durable materials, they are ideal for both residential and commercial properties, offering customizable options to suit various needs.

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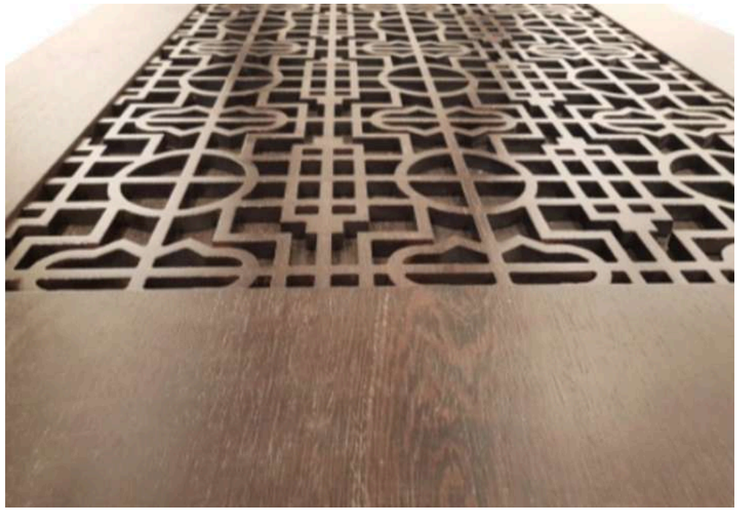

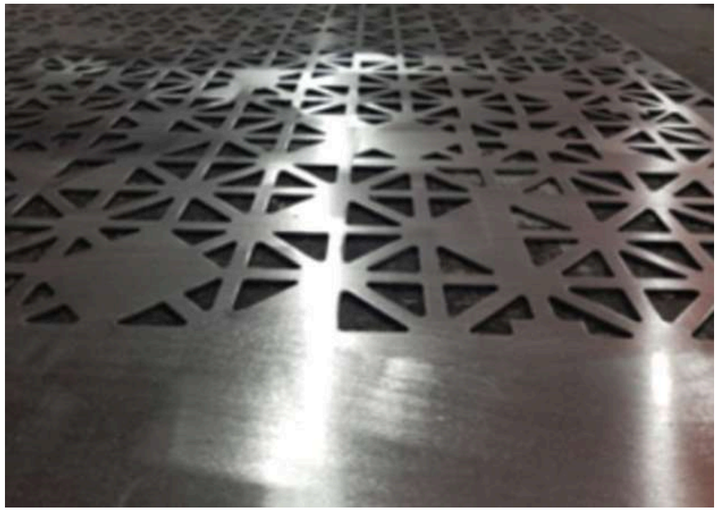

STARS STEEL

We have expanded our services in the area of steel fabrication which includes all metals decoration and steel finishing, Aluminium CNC cutting, CNC Punching, Steel Fabrication, Steel Structure, Stainless Steel Fabrication, SS Fabrication, Staircase Fabrication, Pipe Bending, Tubes Bending, Stainless Steel Polishing, Metal Sheet Forming, Metals coating, Welding, Design, supply & installation of all kinds aluminium andsteel fabrication.

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PREVIOUS PROJECTS

Intercontinental Hotel, Mina Al Arab, Ras Al Khaimah, UAE
7,643,000

Muwailah Community No. 1,2,3 & 4
6,655,500

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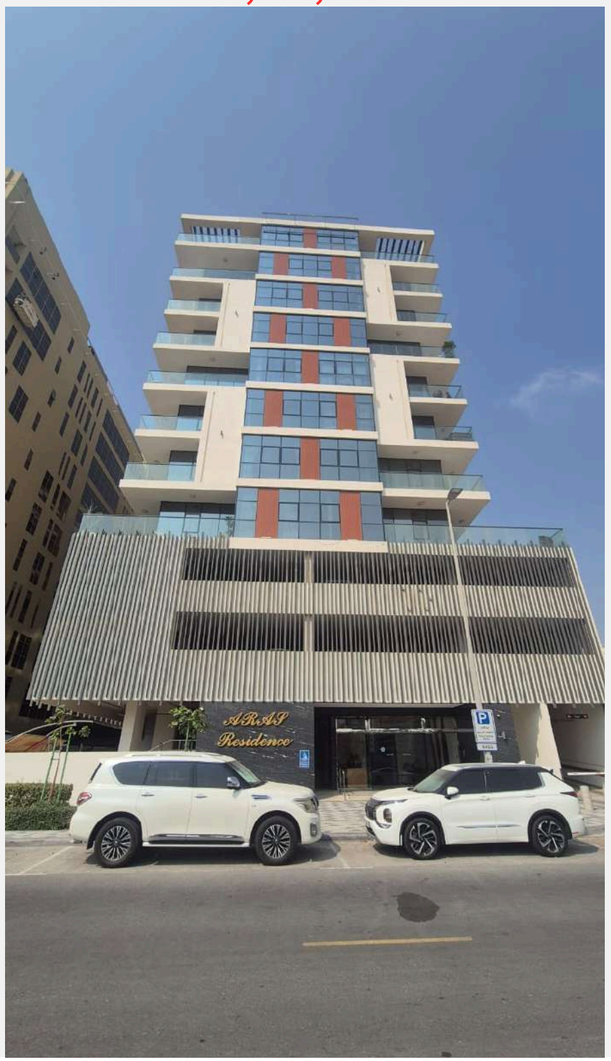
PREVIOUS PROJECTS

Private villa

3,650,900

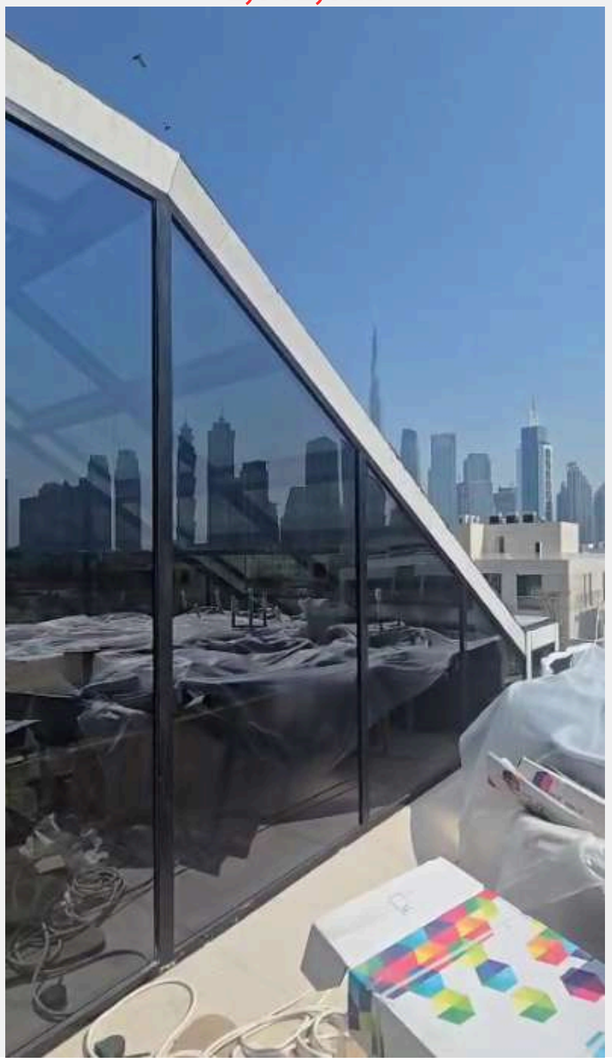
Aras Residence - Dubai

4,766,013



Private villa

2,981,022



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PREVIOUS PROJECTS

Private villa

205,099

Mouseq - Ahmed alhabai

3,224,022

Private villa

564,855

LM

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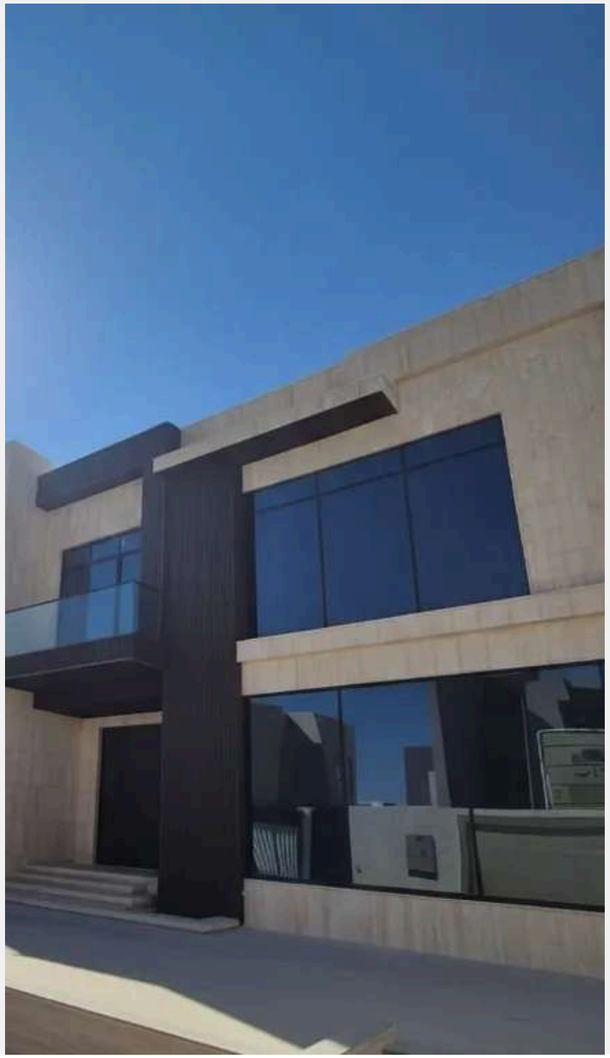
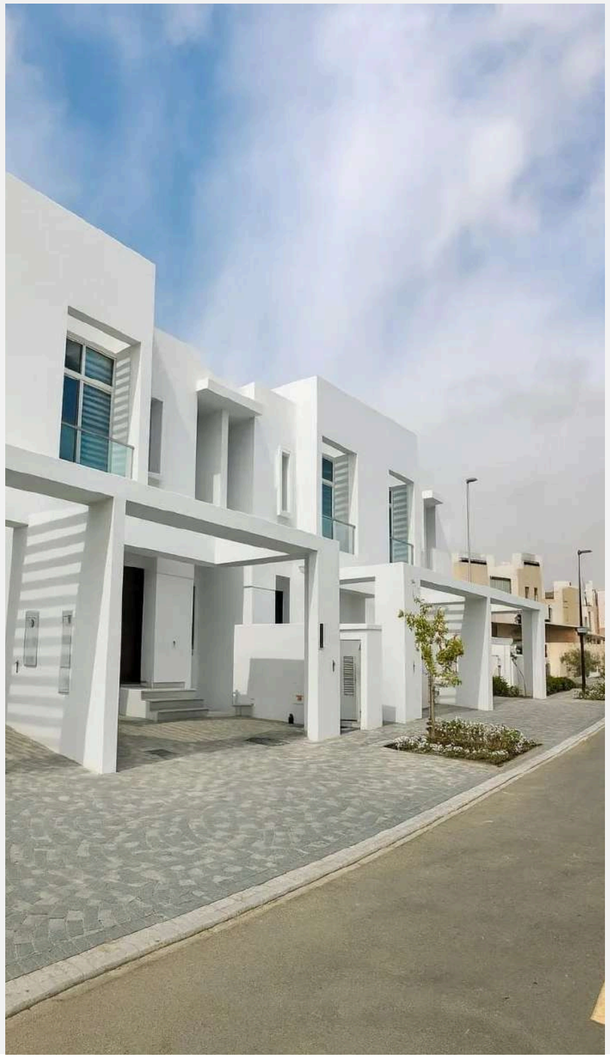
PREVIOUS PROJECTS

Private villa
908,734



Private villas
5,054,233

Private villa
1,502,224



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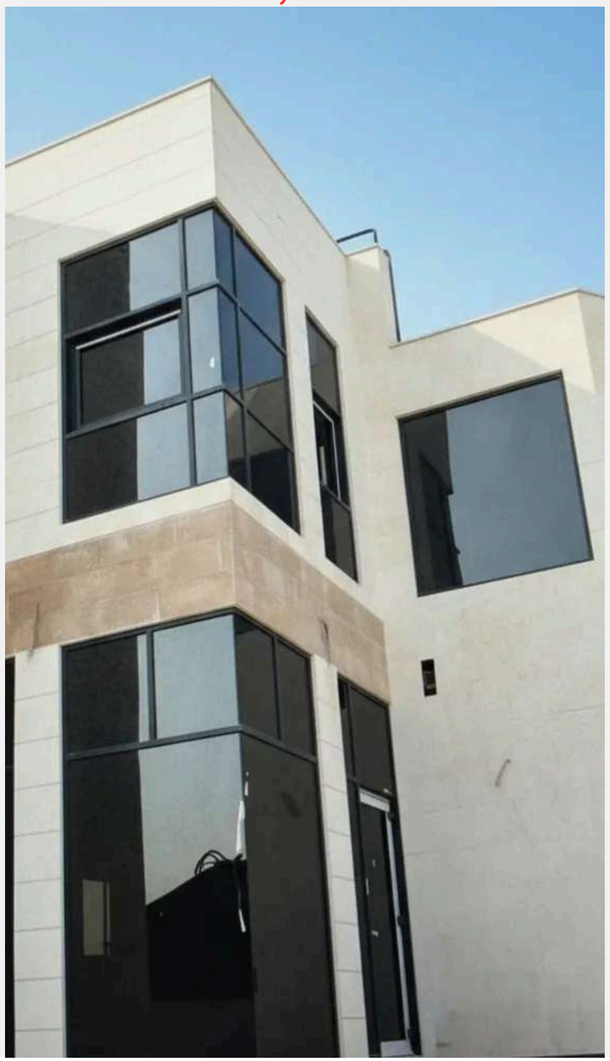
Stars glass & aluminium Co.

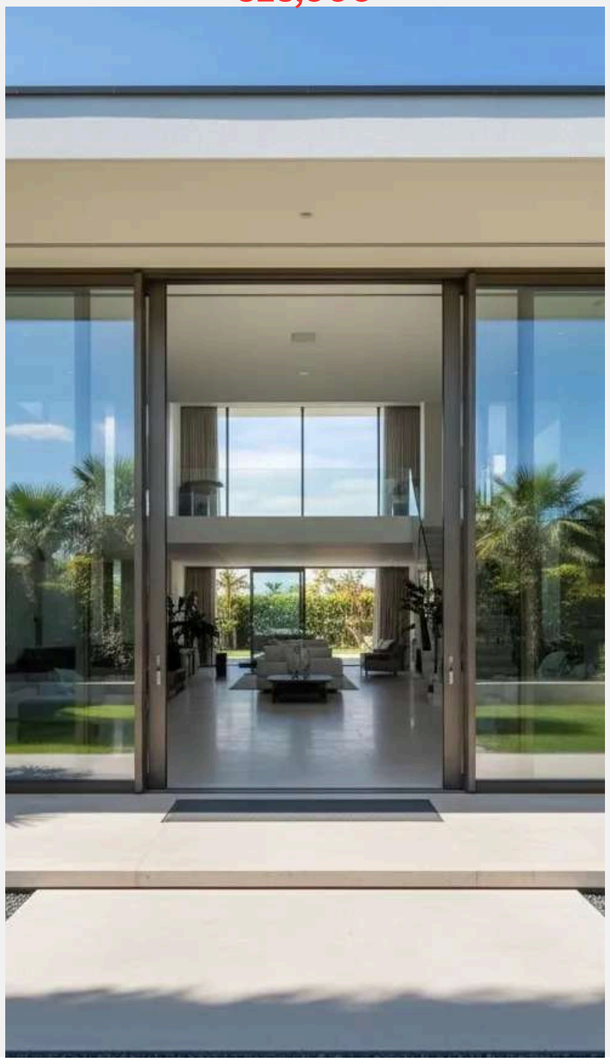
PREVIOUS PROJECTS

Private villa
800,398



Private villa
1,597,665

Private villa
323,000



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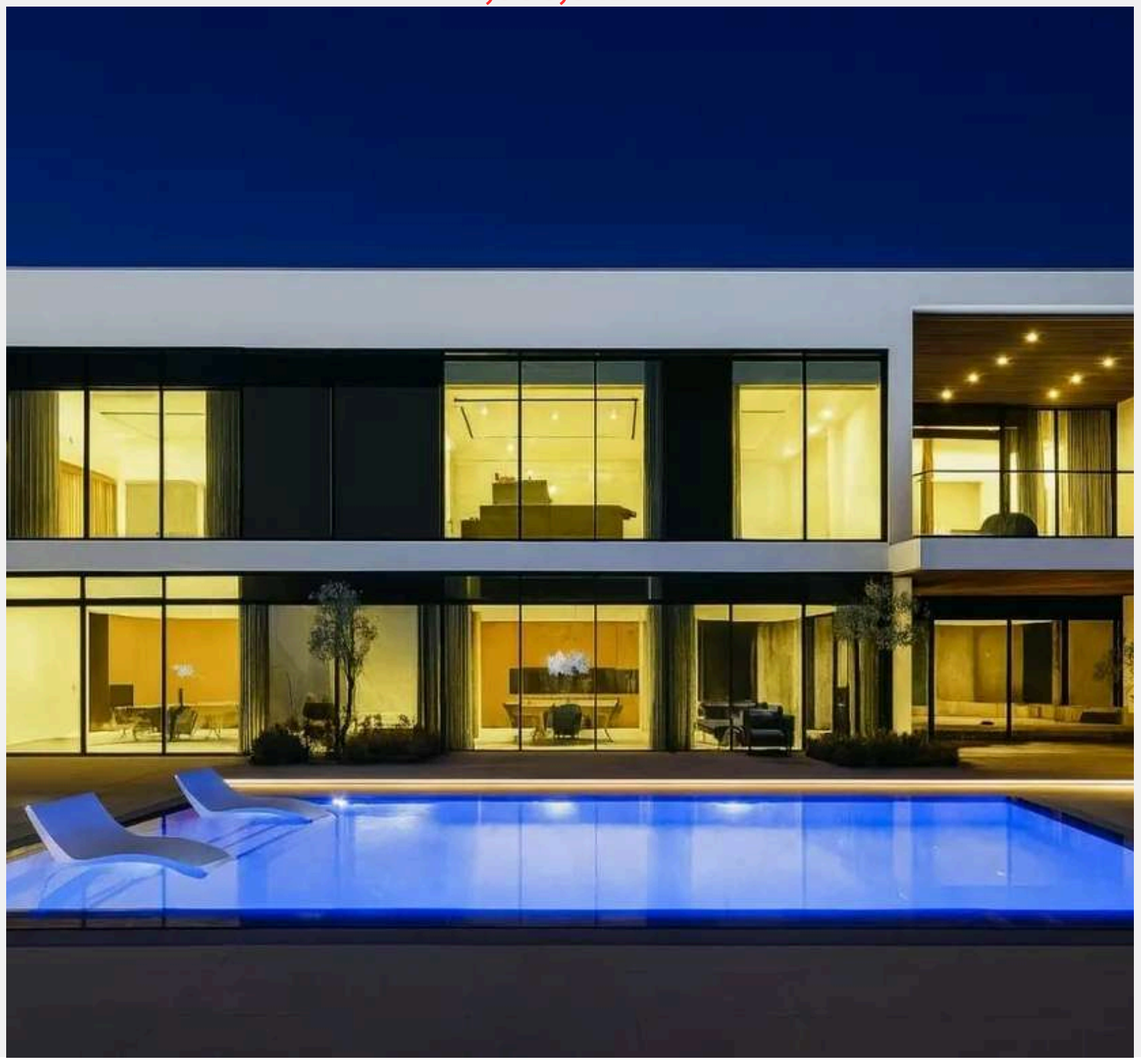
PREVIOUS PROJECTS

Private villa

252,221

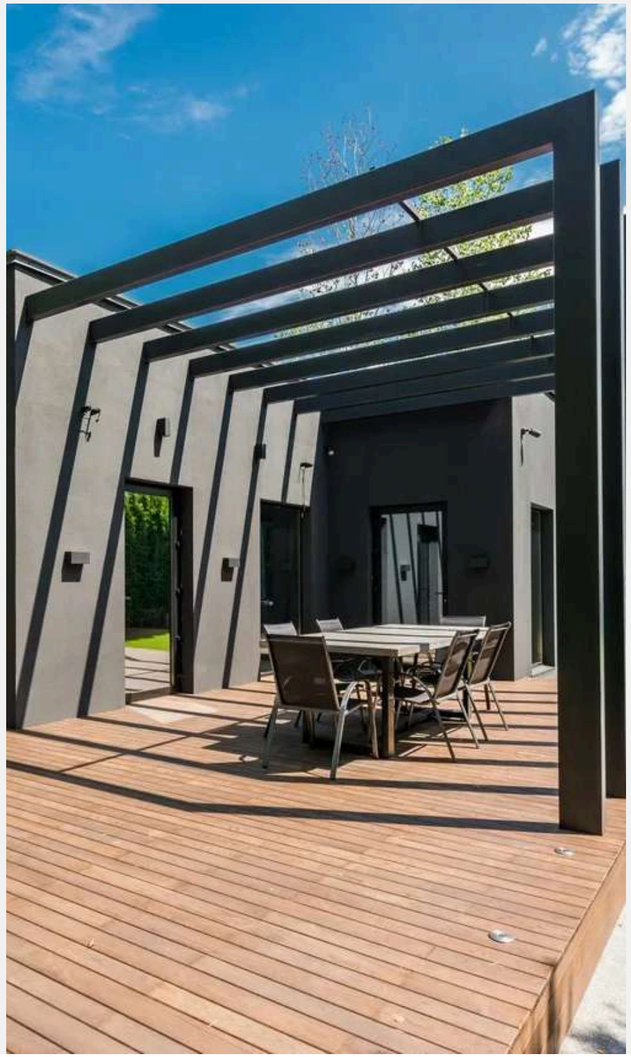
Private villa

4,098,341



Private villa

76,088



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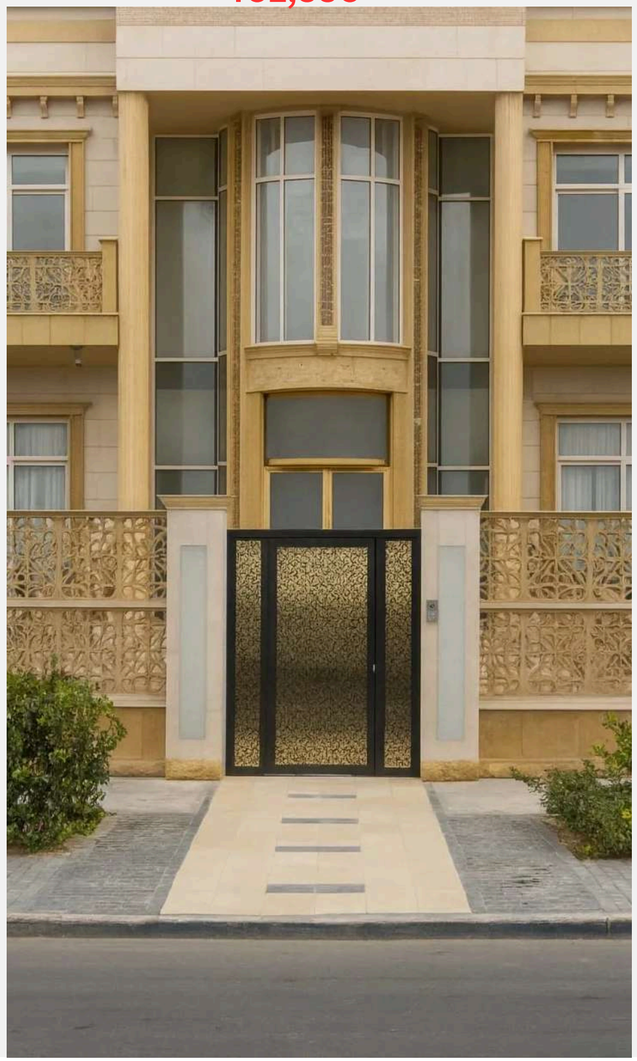
PREVIOUS PROJECTS

Private villa

402,550

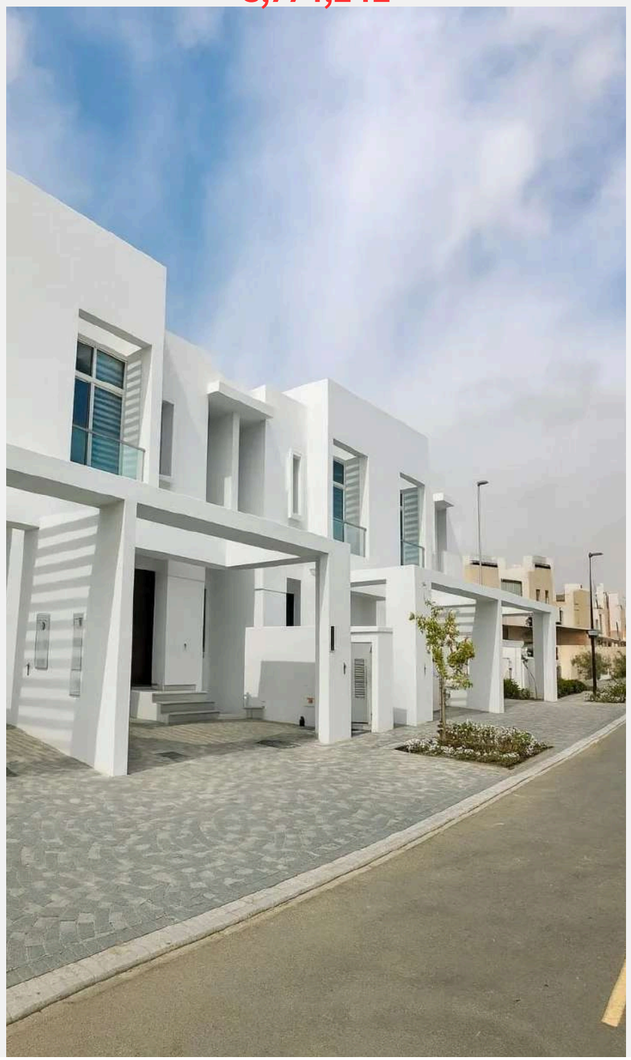


Private villa

502,477

Private villas

3,774,141



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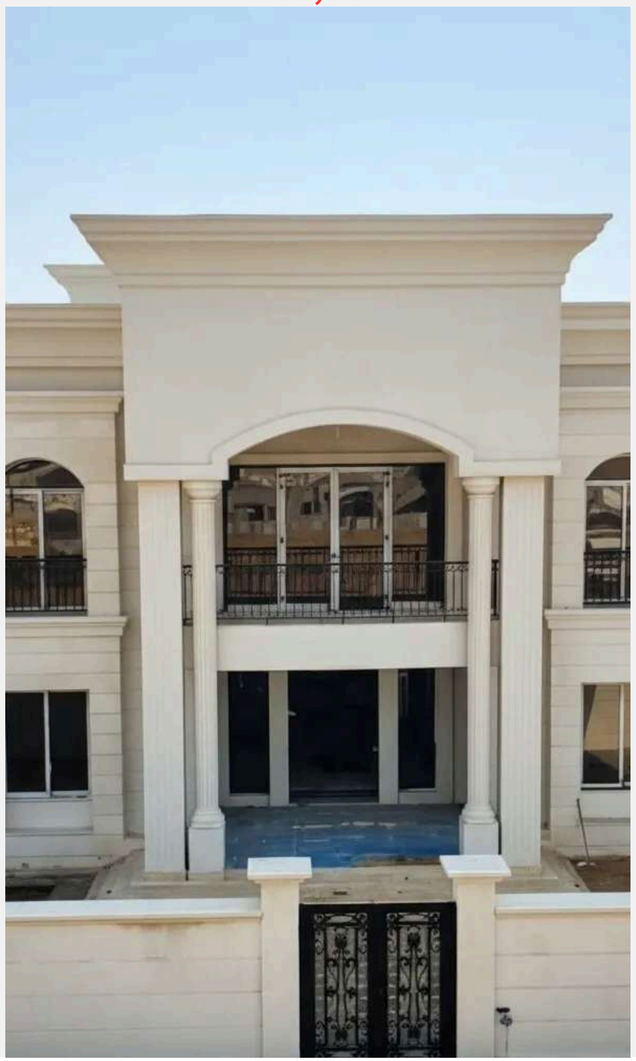
Stars glass & aluminium Co.

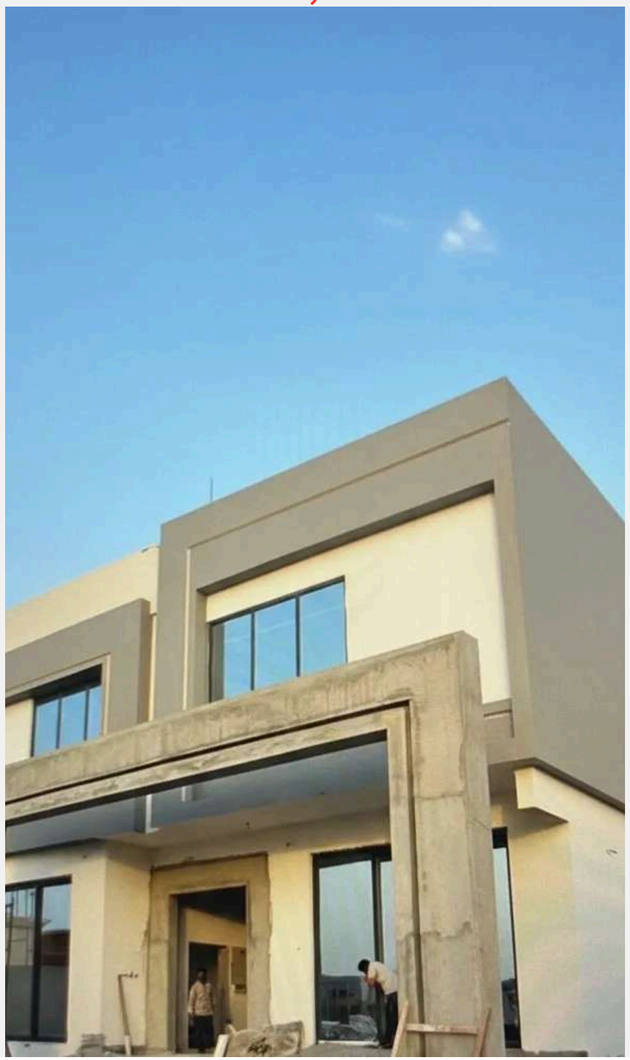
PREVIOUS PROJECTS

Private villa
405,554



Private villa
1,204,554

Private villa
941,544



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Stars glass & aluminium Co.

EXPORTING

GLOBAL BUILDERS - BOSASO SOMALIA

3,056,008

NOVARA INTERIORS

1,560,905

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Safety & Sustainability Commitment

At Stars glass & aluminium Co, we are dedicated to ensuring the highest standards of quality and efficiency in all our operations. To achieve this, we source state-of-the-art machinery from globally recognized aluminum and glass processing equipment manufacturers. From cutting and tempering to double glazing and insulation, our advanced solutions cater to all your aluminum and glass needs. By leveraging premium equipment, we ensure superior quality and performance in every project we undertake.

Sustainability
Aluminum and glass are vital in reducing greenhouse gas emissions and mitigating the impact of climate change through energy-efficient practices. At Aluma Gate, we are committed to ethical operations and sustainable practices. We aim to be the leading provider of advanced glass and glazing solutions in the Middle East, focusing on energy conservation and environmental responsibility.

Health & Safety at the Workplace
The health and safety of our employees are paramount at Stars glass & aluminum Co . We continuously strive to:

- Provide a safe working environment that is free from hazards and minimizes occupational risks.
- Offer ongoing training to enhance the competencies of our employees and foster creativity and initiative, ensuring high-quality results and a strong safety culture.
- Identify, assess, and manage occupational risks, with a focus on preventing accidents, emergencies, and occupational diseases.
- Adhere to the highest safety standards by complying with all relevant safety regulations and industry best practices. Our operations are fully aligned with federal and municipal safety laws in the UAE.

OUR POLICY & PROCEDURES

At Stars glass & aluminium Co., our primary policy is to meet and exceed our customers' needs and expectations. We achieve this by maintaining strict oversight of the quality and precision in the production of premium glass and aluminum products. Our commitment to excellence is supported by a robust quality control system, ensuring that we consistently deliver superior glass products, day in and day out.

To drive continuous improvement and foster growth, we invest in the ongoing training and development of our team members. This commitment ensures that our workforce stays at the forefront of industry standards. Furthermore, all of our equipment undergoes regular inspections and maintenance to prevent manufacturing errors and defects.

We understand the delicate nature of glass products, which is why we use our own fleet of trucks for deliveries. This ensures the safe transport of materials, arriving at your location in perfect condition. Our logistics team manages daily deliveries to local customers, with a scheduled delivery service one to three times a week, catering to clients throughout the UAE.

Stars glass & aluminium Co.

COMPANY NAME	CONSULTANT	PROJECT NAME
Royal International Construction	AECOM	Bawabat Al Sharq, Phase 3, 153 villas, Abu Dhabi
Gantoot Gulf Contracting	Al Taif	G+4, 4 Building, Jebel Ali, Dubai
Golden Falcon Construction Co. LLC	Fawzi Aarabi Engineering	G+7 Sayed, Al Karbi, Sharjah
Golden Falcon Construction Co. LLC	Amin Consultant	G+15 Al Qasimia, Sharjah
Al Habbai Contracting LLC	Style Consultant Engineer	G+4, 4 Building, Sonapoor, Dubai
Al Habbai Contracting LLC	Style Consultant Engineer	G+12 Al Nahda, Dubai
Golden Falcon Construction Co. LLC	Sharjah Engineering Consultant	G+7 Muweilah, Sharjah
SS Lootah Contracting Company	Engineering Consultant Group	30 Villas, Al Hamriya, Dubai
Golden Falcon Construction Co. LLC	Sharjah Engineering Consultant	G+3, 3 Building, Al Hamriya, Sharjah
Al Habbai Contracting LLC	Style Consultant Engineer	G+4, Al Qusais, Dubai
Gulf Towers Contracting Company LLC	Sharjah Engineering Consultant	G+13, Al Qasimia, Sharjah
Majik Construction	Adnan Saffarini Engineering	G+2 Villa for Ahmad Al Chany, Al Barsha, Dubai
Golden Falcon Construction Co. LLC	Adnan Saffarini Engineering	G+5 Al Khan, Sharjah
Al Qabdah Building Constructing Co.	Ajad Consultancy	G+30 Al Saad Tower 1, Al Taawon, Sharjah
Al Wathba	Ajad Consultancy	G+16 Golden Crown Tower - Hotel Apartments, Sharjah
FAM Real Estate	International Consultant	G+16 Fam Real Estate Building
Emirates Valley Contracting	Adnan Saffarini Engineering	G+2 (12 Villas), Mirdiff, Dubai
Al Ashram Contracting	Hjaze Consultancy	G+10, 2 Building in Nasir Square, Dubai
Gulf Fab Con	Fire point, Police Point	Expo 2020, Dubai
Demar	NEB Consultancy	G+9 Building, Al Qusais, Dubai

SR	CUSTOMER	PROJECT
1	Hussian Project	Anodized Aluminium
2	Doctor Adil Alsmaldi	Shower Glass
3	Abdul Al Shamali	Aluminium w/ SS Door & Shower Glass
4	Al Amaara Al Shamiah	Powder Coated Aluminium Sliding Window with Arch
5	Madam Maisoon	Sliding Window + Aluminium Door
6	Sultan Al Shamsi	Powder Coated Aluminium Sliding Window with Islamic Arch
7	Julfar Contracting	12 villas Windows, Balconies & handrails
8	MAJCO Const.	Supply & Installation of Powder coated Aluminium Curtain Wall / UPVC with double glazed glass
9	Emirates Valley Cont.	12 villas G+2
10	Suhaib Cont.	Townhouse
11	Venus Aluminium	Louver Door
12	Fath Al Khair	Sliding Window
13	Istanbull Foodstuff	Supply & Installation of Glass Partition
14	Abdullah Ahmed	Supply & Installation of Powder Coated Aluminium Sliding Windows & double leafed Aluminium Hinged door CNC design
15	Esha Interiors	Aluminium Hanging Cabinet with Rack & Shelving Unit
16	Juma Al Suwaidi	Supply & Installation of powder coated Aluminium Hinged Door

Stars glass & aluminium Co.

SR	CUSTOMER	TYPE OF WORK	MATERIAL
1	TSSC	Supply and Installation	Shower Glass Enclosures + Bathroom Partitions
2	Golden Crown Tower	Hotel Apartments	Supply and Installation of Bathroom Mirrors
3	Venus Aluminium	Fabrication	Double-Leaf Louver Hinges Door
4	Saif Belhasa	Supply and Installation	Balustrades
5	Fino International	Supply	U-Channel
6	Mastercraft Technical	Supply and Installation	Staircase & Balcony
7	Venus Aluminium	Supply and Installation	GEZE ECDrive Framed
8	Al Hamad Industrial	Supply	60 x 3mm Round Pipe
9	Al Hamad Industrial	Supply and Installation	Balustrades
10	Emirates Aluminium & Glass Co.	Supply and Installation	Dorma Easy Frameless
11	TSSC	Supply and Installation	Dorma Easy
12	Al Zarqaa Alum & Glass Co. LLC	Supply and Installation	Dorma Easy
13	Mastercraft Technical	Supply and Installation	U-Channel Floor Guide
14	Fino International	Supply	Glass Fittings Accessories
15	TSSC	Supply	Glass
16	Orange Interiors	Supply and Installation	Shower Enclosures
17	Al Hamad Industrial	Supply and Installation	Dorma Easy Frameless
18	Supply	Supply	Aluminium Profiles
19	TSSC	Supply	6mm Clear Glass
20	Tech Aluglass	Supply and Installation	Geze HR100 Safety Sensor
21	Al Marsa	Supply	Glass
22	Katilink	Supply	Aluminium Profiles
23	Al Zarqaa Alum & Glass Co. LLC	Supply and Installation	Access Control
24	Everest Technologies	Supply and Installation	Staircase
25	Venus Aluminium	Supply and Installation	GEZE ECDrive Frameless 13.5 Glass
26	Katilink	Supply and Installation	Dorma ES200 Easy - frame
27	Saif Belhasa	Supply	Non Thermal Aluminium Double Door
28	TAREK	Supply and Installation	Geze Ecdrive 12mm glass & bottom lock
29	Fino International	Supply	Low Iron Glass
30	Hisn Al Fahidi Aluminium LLC	Supply and Installation	Geze Ecdrive Frameless
31	Al Zarqaa Alum & Glass Co. LLC	Supply and Installation	Dorma Easy Frameless Access Card
32	Hisn Al Fahidi Aluminium LLC	Supply and Installation	Geze Slimdrive Framed
33	Tarek	Supply and Installation	Geze HR100 Safety Sensor
34	Apple Interiors	Supply and Installation	Schuco ASS70FD
35	Tarek	Supply and Installation	Dorma Easy Frameless

Stars glass & aluminium Co.

APPROVALS

المكتب الوطني للهندسة
استشارات معمارية و هندسية
National Engineering Bureau
Architectural & Engineering Consultants

PLOT NO.	247-400	LOCATION/BLOCK NAME	AL QUSAIS INDUSTRIAL 4th
AREA OF PLOT	5,251.61 sq.m	PROPERTY TITLE	PRIVATE
NO. OF FLOORS ALLOWED	G+9	NO. OF FLOORS PROPOSED	B+G+9
LAND USE ALLOWED	COMM / OFFICE / RESI	LAND USE PROPOSED	COMM / RESI
F.A.R ALLOWED	5.25	F.A.R PROPOSED	5.20

BUILDING TYPE	COMM / RESI					
SUBMISSION TYPE	PRELIMINARY	FINAL	NEW	REVISION	ADDITION	URGENT
WORK DESCRIPTION	PROPOSED COMM / RESI BUILDING: B+G+9 FLOORS					

PARKING REQUIRED	117	EXISTING BUILT UP AREA	
EXISTING PARKING		APPROVED AREA	
ADDITIONAL PARKING		NOT APPROVED AREA	
		DEMOLISHED AREA	
TOTAL PARKING PROPOSED	111	ADDITIONAL AREA	
		TOTAL BUILT UP AREA	268,541.49 SQ.FT

BUILDING DETAILS

PARKING FLOORS AREA	4,082.56	m²
NET COMMERCIAL AREA	913.45	m²
NET SHOPPING CENTER AREA	--	--
NET OFFICES AREA	--	--
NET RESIDENTIAL AREA	15,500.46	m²
NO. OF APARTMENT < 1500 SQ.FT.	104	Nos.
NO. OF APARTMENT > 1500 SQ.FT.	--	Nos.
NO. OF STUDIOS	--	Nos.
NO. OF OFFICES	--	Nos.
NO. OF SHOPS / SHOWROOMS	9	Nos.
NO. OF LIFTS	4	Nos.
TOTAL BUILDING HEIGHT	44.50	m

BUILDING NOTES

- ✓ MECHANICAL VENTILATION TO BE PROVIDED AS PER ASHRAE STANDARDS.
- ✓ GLASS CLEANING CRADLE TO BE PROVIDED AS PER DM RULES.
- ✓ GARBAGE COMPS & CONTAINERS TO BE PROVIDED AS PER DM REGULATIONS.

PROPOSED B + G + 9 FLOORS
COMMERCIAL / RESIDENTIAL BUILDING
ON PLOT NO.247-400,
AL QUSAIS INDUSTRIAL FOURTH.

OWNER' S NAME & SIGNATURE	CONSULTANT'S SIGNATURE & DATE
YOUSUFFALI MUSALIAM VEEITIL ABDUL KADER	NATIONAL ENGINEERING BUREAU

DESIGNER	NAME	REGISTER	AREA
ARCHITECT	MR. DEEPAK PARKAR		
ARCHITECT			
STRUCTURAL	JAMI LADALLAH		
STRUCTURAL			
STRUCTURAL			
SERVICES			

FOR MUNICIPALITY USE ONLY

DRAINAGE APPROVAL		ROAD APPROWAL	CIVIL DEFENCE APPROVAL	ENVIRONMENT APPROVAL	BUILDING NUMBER
AC	DRAINAGE				STREET NUMBER
					STREET NAME

AUTHOR... PPROVAL

MUNICIPALITY CONDITIONS	
1-	
2-	
3-	
4-	

Status: PRM	Drawing No. G0-00	Date: SEP.2015
File Ref.		Scale: NTS
Project No. 15-1564	Sheet No. -	Revision -

Stars glass & aluminium Co.

APPROVALS

Stars Glass and Aluminium Co | Eng. Adnan Saffarini Office Architects & Engineering Consultants | الصقور الذهبية Golden Falcons

SUB- CONTRACTOR APPROVAL

PROJECT : HOTEL BILDING (B+G+5TYP+HC)
CONSULTANT : ENG.ADNAN SAFFARINI ENGINEERING CONSULTANT
CONTRACTOR : GOLDEN FALCONS CONSTRUCTION.

Date: 25/10/2017 Ref. MSF No.12

Sub- Contractor	Work / Job
STAR GROUP - ALUMA GATE ALUMINUM & GLASS	ALUMINUM WORKS (ALU DOOR, HANDRAIL & SHOWER GLASS)

Specified	Proposed	Reason For Alteration
GHURAIR		

List of Attachments to this form:

☐ Catalogues ☑ Samples ☑ Documents

Signatures: Sub-Contractor Eng Project Manager

FOR CONSULTANTS USE

☐ Approved ☑ Approved As Noted ☐ Not Approved

Comments / Notes:
- glass design shall be as approved Sample.
- 10mm Tempered.
- accessories to be S.S 316
- Handrail sample Required be Proceed.

Contractor's Project Manager: Date:

P.O. Box 2614 Sharjah - U.A.E. Golden Falcons Const. Co. L.L.C

Consultant's Projects Manager: Date: 26-10-2017

Stars Glass and Aluminium Co | JABAL HAFEET BLDG CONT CO. L.L.C | QHC Architects & Engineers

SUB- CONTRACTOR APPROVAL

PROJECT: SHARJAH CO-PERATIVE SOCEITY, AL SEYOUH, SHARJAH
CONSULTANT: QHC ARCHITECTS & ENGINEERS
CONTRACTOR: JABAL HAFEET BLDG CONT CO. L.L.C

Date: 25/10/2017 Ref. MSF No.12

Sub- Contractor	Work / Job
STAR GROUP - ALUMA GATE ALUMINUM & GLASS	ALUMINIUM WORKS (ALUMINIUM DOORS, WINDOWS, STAINLESS STEEL WORKS)

Specified	Proposed	Reason For Alteration
GHURAIR		

List of Attachments to this form:

☐ Catalogues ☑ Samples ☑ Documents

Signatures: Sub-Contractor Eng Project Manager

FOR CONSULTANTS USE

☐ Approved ☐ Approved As Noted ☐ Not Approved

Comments / Notes:

Contractor's Project Manager: Date:

JABAL HAFEET INTERNATIONAL BLDG CONTRACTING LLC
P.O.Box: 45795, Sharjah, UAE

Consultant's Projects Manager: Date:

Client: LINE | National Engineering Bureau | Main Contractor: Benaa Emirates Contractors

APPROVAL OF SUB-CONTRACTOR / PRE-QUALIFICATION

Project Name:	B+G+9 Floors Commercial / Residential Building	Project Code: C - 002
		Date: 24/01/2018
Plot No / Location:	Plot No. 247-400 Alqusais Industrial Area 4, Dubai U.A.E	Ref. No: SC / 0032– REV. 00
Main Contractor: Benaa Emirates Contractors		
Department:	☐Architectural ☒Civil ☐Electrical ☐Mechanical ☐Structural ☐Others	
Work Description	Mechanical, Electrical, plumbing, Fire Alarm & Fire Fighting Work GLASS SERVICES & ALUMINIUM FABRICATION	

S.No.	NEB Specified Sub-Contractor	Same As Specified	Alternative Proposed Sub-Contractor
		ALUMA GATE ALUMINIUM AND GLASS INSTALLATION	3pcs prequalification – hard copy

RECEIVED NEB SITE SUPERVISION 24 JAN 2018 For ... Time ... Sign ...

Enclosure:

Reason for Alternation:

Submitted By: (Name) Engr. Hatem	Signature:	Date: 24/01/2018
Received By: (Name)	Signature:	Date:

BELOW PORTION FOR NEB USE ONLY

Status: ☐Approved ☒Approved as noted ☐Resubmitted ☐Rejected

Comments (Refer to NEB SPTI):
- No objection for Aluma gate subject to Client approval
- Shop drawings & Materials to be submitted after client approval

Signed By: (Name) Khan Mumaad	Signature:	Date: 14/2/2018
Hand Over to: (Name) AKHIL	Signature:	Date: 21/02/18
Client Approval : (Name) Pramod Muridas	Signature:	Date: 20/2/2018

Comments:
1. Subject to material approval
2. Mock up sample to be provided before the final approval of the subcontractor.
3. Approval is subjected to fully complying the project specification
4. Third party test is required as per specification.
5. Colour sample

HANDOVER DATE 21/02/2018

Stars glass & aluminium Co.

APPROVALS

11/28/2018 IMG-20181121-WA0001.jpg

[redacted]

Atrium

Ref: Our Ref: AAEC/DB/1018/17/AD
Date: 06/12/2017

Project Name: B+G+4TYP+ROOF RESIDENTIAL BUILDING AT PLOT JVC12LMRP004
Client: Mohamed Gheyath
Main Contractor: Al Falasi Engineering & Construction Co. LLC
Project Address: Jumeirah Village Circle - Dubai

To Whom It May Concern

We Atrium Architectural & Engineering Consultancy confirm that M/S Stars Glass & Aluminium Co. are approved to carry out fabrication and installation of aluminium and glass works for our projects.

This Certificate is issued upon the request of M/S Stars Glass and Aluminium Co. without holding any responsibilities towards any Third Party

Mr. Mamoun Balaawi
Managing Partner

[redacted]

1/1

AL NISR
Roads and Building Contracting L.L.C

النسر
لمقاولات الطرق والبناء ذ.م.م

Date: 14 March 2019

To,
STARS GLASS & ALUMINIUM CO LLC
Sharjah, United Arab Emirates

Subject : **RECOMMENDATION LETTER**

TO WHOM IT MAY CONCERN,

Dear Sir / Madam,

This is to be confirm that Stars Glass & Aluminium Co. has been the supplier/fabricator of our school projects for development of Tareq Bin Zayed School and Zaydia School at Alain, Abudhabi, UAE for the year of 2018 from period June 2018 to October 2018 under LPO Ref No : NISR/ALAIN/2018/0003 & NISR/ALAIN/2018/0006.

They have completed the project in an orderly and timely manner, meeting the critical deadline dates. They have co-operative and have shown complete flexibility in order to ensure that the schools are ready and finished on date

We would certainly recommend Stars Glass & Aluminium Co. for future work.

Thanks & Regards

Eng .Momen Jehad
Project Manager
Al Nisr Roads & Building Contracting LLLC

Abu Dhabi Office T: +971 2 448 5969 F: +971 2 448 5967 P.O Box 111118
Dubai Office T: +971 4 335 7095 F: +971 4 335 7096 P.O. Box 99257
Email: [redacted]
Web: [redacted]

[redacted]

ESC
ALUMINIUM SYSTEMS

Intercontinental Residence
Marsa Plaza Building
Dubai Festival City, Dubai, U.A.E.

AUTHORIZATION

STARS GROUP
P.O. Box 3574
Industrial Area 2, Sharjah UAE

Is an authorized fabricator and installer of Doors, Windows and Curtain Walls by **ESC Aluminum Systems** and has been working with E S C system.

ESC gives full authorization to **M/s. Stars Group.** to use ESC Aluminium Systems for their Projects.

In extension, **ESC** declares that we provide **them** with our full technical support as per contractual agreement between **Stars Group.** and **ESC**, for the structural calculations, shop drawings and any engineering assistance, regarding his projects.

ESC Building Materials Trading Co. LLC
(E S C Aluminium Systems)

Date : July 3, 2019

Mohammed Al Masri
C E O

ESC Building Materials Trading Co. L.L.C. شركة ذي إس سي لتجارة مواد البناء ذ.م.م

P.O.Box 15307 Dubai - UAE
Tel. : +971 4 2515656, Fax : +971 4 2515800
E-mail : contact@esc700.com
www.esc700.com

Stars glass & aluminium Co.

CERTIFICATIONS

الخليج للسحب
Gulf Extrusions

AUTHORIZED FABRICATOR
CERTIFICATE

Gulf Extrusions Hereby Certifies That

Al Nejoum Aluminium & Glass Ind. Co. L.L.C.

Is An Authorized Fabricator Of Gulf Extrusions' Building Systems.

2020.11.10
14:32:02 +04'00'

Christian Witsch
CEO

INNOVATIVE ALUMINIUM EXCELLENCE

This certificate is valid from 01/11/2020 to 01/11/2021

Stars glass & aluminium Co.

CERTIFICATIONS

الخليج للسحب
Gulf Extrusions

17th November 2020

TO WHOM IT MAY CONCERN

This is to certify that M/s. Stars Glass and Aluminium Co., P.O. Box 3574, Sharjah, U.A.E. is an authorized dealer of Gulf Extrusions profiles.

This certificate is issued upon request from M/s. Stars Glass and Aluminium Co., Sharjah, but without any engagement on our part and is valid if presented in original.

For **Gulf Extrusions LLC**

Christian Witsch
Chief Executive Officer

Gulf Extrusions LLC | A Subsidiary of Al Ghurair Group
Gulf Extrusions LLC, Po Box 5598, Dubai, United Arab Emirates Tel: 00971 4 884 6166 Fax: 00971 4 884 6830 www.gulfex.com

CERTIFICATE OF REGISTRATION

SIS CERT.

This Certificate has been awarded to

STARS GLASS & ALUMINIUM CO.

P.O. Box 3574, Industrial Area 2, Sharjah, U.A.E.

In recognition of the organization's Management System which complies with

ISO 9001:2015
Quality Management System

The scope of activities covered by this certificate is defined below

Trading & Fixing Aluminum Glass and Accessories

Certificate Number: **SISBALQ06202012216**
Date of Issue of Original Certificate: **25.06.2020**
Date of Issue of latest certificate: **25.06.2020**
First Surveillance due on: **25.05.2021**
Second Surveillance due on: **25.05.2022**
Expiry Date: **24.06.2021**
Re-certification Due on: **25.05.2023**

Managing Director

IAF MLA IAS ACCREDITED Management Systems Certification Body MSCB -131

Note: This certificate is valid only if produced with the continuation letter after the surveillance is carried out successfully.

The Organization's documentation and Implementation has been reviewed and found to comply with the relevant standard rules. This certificate of Registration is based on the evaluation of the mentioned scope given above. Organization is responsible for maintaining the responsibilities of the relevant standard rules. Any significant changes in the scope of the certification or standard referred above render this certificate invalid. This is an accredited certificate issued by SIS Certifications Pvt. Ltd. sanctioned for issue by International Accreditation Services , 3060 Saturn Street Suite 100 Brea, California 92821-1732, USA. Corporate office(SIS):- Unit No. 312, 3rd floor, Vipul business Park, Sohna Road, Sector-48, Gurgaon-122018, Haryana, India, Web:- http://www.siscertifications.co.in, www.siscertifications.com
The status of this certificate can be verified on "http://www.siscertifications.co.in"

Issue No.: 01

CERTIFICATE OF REGISTRATION

SIS CERT.

This Certificate has been awarded to

AL NEJOUM ALUMINIUM & GLASS IND. CO. LLC

P.O. Box 3574, Industrial Area 2, Sharjah, U.A.E.

In recognition of the organization's Management System which complies with

ISO 9001:2015
Quality Management System

The scope of activities covered by this certificate is defined below

Manufacturing of Aluminum Foil Coils - Fire - Resistant Metal Doors - Doors and Windows & Frames and Metal Shutters

Certificate Number: **SISBALQ06202012215**
Date of Issue of Original Certificate: **25.06.2020**
Date of Issue of latest certificate: **25.06.2020**
First Surveillance due on: **25.05.2021**
Second Surveillance due on: **25.05.2022**
Expiry Date: **24.06.2021**
Re-certification Due on: **25.05.2023**

Managing Director

IAF MLA IAS ACCREDITED Management Systems Certification Body MSCB -131

Note: This certificate is valid only if produced with the continuation letter after the surveillance is carried out successfully.

The Organization's documentation and Implementation has been reviewed and found to comply with the relevant standard rules. This certificate of Registration is based on the evaluation of the mentioned scope given above. Organization is responsible for maintaining the responsibilities of the relevant standard rules. Any significant changes in the scope of the certification or standard referred above render this certificate invalid. This is an accredited certificate issued by SIS Certifications Pvt. Ltd. sanctioned for issue by International Accreditation Services , 3060 Saturn Street Suite 100 Brea, California 92821-1732, USA. Corporate office(SIS):- Unit No. 312, 3rd floor, Vipul business Park, Sohna Road, Sector-48, Gurgaon-122018, Haryana, India, Web:- http://www.siscertifications.co.in, www.siscertifications.com
The status of this certificate can be verified on "http://www.siscertifications.co.in"

Issue No.: 0

Stars glass & aluminium Co.

CERTIFICATIONS

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

In accordance with UKAS accreditation to ISO 17065
Certification is Hereby Granted

to

Al Nejoum Aluminium & Glass Ind. Co. LLC

Plot No. 3341, Bldg. No. 14, Street No. 71,
Warehouse No.6, Sharjah Industrial Area 2,
P.O. Box 3574, Sharjah, United Arab Emirates

for

Latched Single Acting, Single Leaf Steel Doorset
Test Method: EN 1634-1:2014+A1:2018

which, subject to limitations described on the following pages and continued listing on www.tbwcert.com, complies with Product Certification Scheme
SD01 Fire Resistant Door & Hardware Scheme

In witness whereof, this Certificate is issued this 15th day of July 2020

Sandy Dweik
Chief Executive Officer

Nicholas Purcell
Director of Certification

Certificate Number: TBW0100626

Initial registration: July 15, 2020 Issued: July 15, 2020 Expiration: July 14, 2023
File Name: TD079_CRT_SD01RF_SLSD_(f)

This certificate and schedules are held in force by regular Factory Inspections by Thomas Bell-Wright International Consultants (TBWIC). Refer to www.tbwcert.com or contact TBWIC Certification Division to validate the current status of Certification. This certificate remains the property of Thomas Bell-Wright International Consultants, PO Box 26385, Dubai, UAE. Tel: +971 4 8215777, Email: certification@bell-wright.com
Web: www.bell-wright.com
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F 19 Scheme Certificate Issue 7 Issued Feb 2020

Latched Single Acting, Single Leaf Steel Doorset

1. Certification is given for the subject doorset in accordance with the manufacturer's installation instructions and subject to the limitations below to provide Fire Resistance in accordance with test standard EN 1634-1:2014+A1:2018 as per the table below:

Table 1. Scope of Certification

Description	Overall Dimension	Fire Resistance Rating
Latched Single Acting, Single Leaf Steel Doorset	1095 x 2195 mm (width x height)	Up to 180 mins *(integrity only)*

2. Readers of this document should be familiar with Resistance to Fire Testing and the requirements of ISO/IEC 17065:2012. The Certification will be listed on www.tbwcert.com, while it remains current. This Certification is not valid if it is not listed.
3. The doorset was approved on the basis of TBWIC Product Certification Scheme SD01 for Fire Resistant Doors and Hardware which includes pre-test sampling, evidence of performance (under ref: TBWIC Test Report No. TD130 Rev.0), Technical Verification and Proof of Performance, compliance to Factory Production Control Requirements and Surveillance & Re-certification Inspection/ Audits.
4. The latched single-acting, single-leaf steel doorset was composed of a leaf made of 1.5 mm thick galvanised steel sheet (ASTM A653 CS Type A) skin and mineral wool infill. The frame is made of 1.5 mm thick hot-dipped galvanised steel sheet (ASTM A653 CS Type A) with a minimum jamb depth of 150 mm, and a minimum 15 mm stop. The allowable dimensions are mentioned in Table 2.
5. Limitations:
   - 5.1. This certification covers the performance of the doorset against the requirements of EN 1634-1:2014+A1:2018 for fire resistance with respect to integrity only.
   - 5.2. This certification covers the complete doorset assembly and does not cover individual components on their own.
   - 5.3. This certification covers the maximum door dimensions, the specification of components, and specifications of ironmongeries & accessories as detailed in the test report.
   - 5.4. The thickness of the steel sheet used in the door leaf and door frame are minimum and shall not be reduced unless otherwise approved by TBWIC certification. Heavier gauges are permitted.
   - 5.5. The doorset was tested with a touch-bar panic exit device installed on the fire side. There were no door handles, mortise sashlock and cylinder used on the test. Due to the nature of the tested configuration, the performance of the doorset when fitted with door handles, mortise sashlock and a cylinder cannot be determined; therefore penetrations on the door leaf to allow the installation of lever-type door handles, mortise sashlock, a cylinder or any accessories which are not part of the tested door specification is not permitted unless otherwise approved by this certification.
   - 5.6. The door shall be installed only on a rigid supporting construction consisting of either of blockwork, masonry or homogenous concrete wall with a minimum density of 2350 kg/m³ and thickness appropriate for the expected fire resistance period, with steel bolts fixing and with frame backfill. The spacing of the fixings shall not exceed that, which has been tested. Other types of supporting construction are not allowed unless otherwise approved by this certification.
   - 5.7. The doorset covered under this certification shall be provided with label fixed at the specified locations which contain the details of the company, the rating of the door, the test standard and QR code that links to the current listing of the manufacturer to the TBWIC website.

Certificate number: TBW0100626
Page 2 of 4

Director of Certification
Nicholas Purcell

Seal number: 101134
Issued: 15 Jul. 2020
Valid to: 14 Jul. 2023

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5.8. This certification covers the doorset dimensions, as mentioned in Table 2.

Table 2: Permitted dimensions

	Latched Single Acting, Single Leaf Steel Doorset [Note1]
Fire Resistance Rating (Integrity Only)	180 minutes [Note 2]
Maximum Leaf Height	2467 mm
Maximum Leaf Width	1162 mm
Minimum Leaf Thickness	49 mm
Maximum Frame Height	2524 mm
Maximum Frame Width	1259 mm
Minimum Jamb Depth	150 mm
Minimum Jamb Stop	15 mm

Note 1: Full details of the door construction and configuration can be referred to, in TBWIC Test report ref: TD130 Rev.0
Note 2: The increase in the door dimension are only be valid for doorsets with a fire rating up to 180 minutes, and shall be pro-rata and SHALL NOT in any case result in an increase in doorset area of more than 20% over the tested doorset.

6. Typical doorset configuration
   - 6.1. Latched Single Acting, Single Leaf Steel Doorset

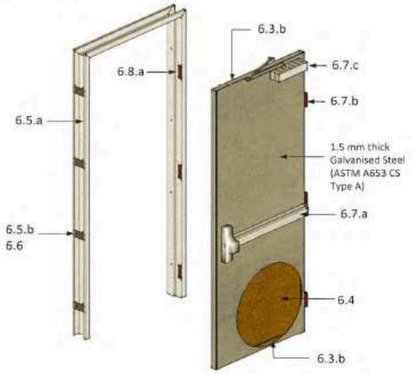

Figure 1 – Typical door construction details

Certificate number: TBW0100626
Page 3 of 4

Director of Certification
Nicholas Purcell

Seal number: 101134
Issued: 15 Jul. 2020
Valid to: 14 Jul. 2023

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Stars glass & aluminium Co.

CERTIFICATIONS

6.2. Door Configuration

The doorset is a latched single acting, single-leaf steel doorset with a mineral wool infill. The leaf skin is made of 1.5 mm thick galvanised steel (ASTM A653 CS Type A). The permitted dimensions of the doorset shall be according to Table 2.

6.3. Leaf Construction

a. Edge Construction Detail – "Interlocking Edge" construction made of 1.5 mm thick galvanised steel (ASTM A653 CS Type A), spot welded at a nominal distance of 20 mm from the ends and 500 mm centres. The edge construction details may not be changed.
b. Top and Bottom Edge Channel – 43 × 20 × 1.5 mm (web x flange x thickness) galvanised steel channel, recessed type fixing, plug welded at a nominal 100 mm ends and 120 mm centres.

6.4. Core

Mineral wool "SXXX" with a minimum density of 140 kg/m³ and thickness of 50 mm.

6.5. Door Frame

a. The door frame is made of 1.5 mm thick hot-dipped galvanised steel (ASTM A653 CS Type A), double rabbet jamb and header, with a minimum depth of 150 mm and minimum 15 mm stop, mitred joint, welded and ground smooth.
b. Anchor Plate – Galvanised Steel, 148 × 55 × 1.5 mm (length × width × thickness)

6.6. Wall Fixing

The doorset shall be fixed to the masonry wall using Ø10 × 132 mm (diameter × length) commercial-grade expansion bolt at a nominal spacing of 581 – 641 mm centres, 137 mm from top of the jamb and 240 mm from the sill. The frame shall be installed with frame backfill using cement masonry grout. The distance between each fixing location may not be increased.

6.7. Hardware

a. Panic exit device – Stainless steel finish "Touch Bar Panic Latch CPH6080F" | ANSI/BHMA A156.3-(2008) Grade 1 by Consort Architectural Hardware Ltd.
b. Hinges – Stainless Steel Butt Hinges 102 × 76 × 3 mm (width × height × thickness) Butt Hinges "HINBB443" by Euro Art
c. Door Closer – Surface mounted door closer "DCT2024" by Eurospec Architectural Hardware Limited. All hardware items shall be as tested. Alternate hardware shall be upon the approval of TBWIC Certification.

6.8. Hardware Reinforcements

a. Frame Hinges Reinforcements – 165 × 38 × 4.5 mm (length × width × thickness) Hot Rolled steel fixed at a nominal distance of 177 mm from the sill, 155 mm from the top of the jamb and at 911 mm centres
b. Hinge Cover – 1.5 mm thick Hot-dipped Galvanised Steel
Note: The thickness of the steel used for hardware reinforcements are minimum and may not be reduced. Refer to test report no. TD130 Rev.0 for full details of hardware reinforcement specification, dimensions and fixing.

7. Approved Manufacturing Location

Plot No. 3341, Bldg. No. 14, Street No. 71,
Warehouse No.6, Sharjah Industrial Area 2,
P.O. Box 3574, Sharjah, United Arab Emirates

Certificate number: TBW0100626

Director of Certification
Nicholas Purcell

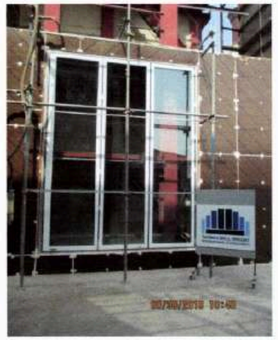
Seal number: 101134

Issued: 15 Jul. 2020
Valid to: 14 Jul. 2023

Page 4 of 4

FINAL REPORT
CURTAINWALL TESTING
FOLDABLE DOOR PROJECT

ALUMA GATE ALUMINUM & GATE INSTALLATION
P. O. BOX 3574
SHARJAH, UAE
FAX: 04 543 3041
TEL: 04 543 3937



THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

Foldable Door Project
Report Date: 10/27/19 8:41 AM
File: TF075
File Name: TF075FoldableDoorFR.docx

PO BOX 26385, DUBAI UAE T +971 (0)4 821 5777 admin@bell-wright.com www.bell-wright.com
DUBAI ABU DHABI DOHA

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

File No: TF075

Accreditation
Testing

ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories *with*

1. United Kingdom Accreditation Service (UKAS) - Testing Laboratory: **4439**
2. International Accreditation Service (IAS) - Testing Laboratory: **TL-626**
3. GCC Accreditation Center (GAC) -Testing Laboratory: **ATL-0017**
www.ukas.comwww.iasonline.orgwww.gcc-accreditation.org

Memberships

Members of European Group of Organization for Fire Testing, Inspection and Certification
www.egolf.org.uk

Member of International Trade Council
www.thetradecouncil.com

Member of Association for Specialist Fire Protection
www.asfp.org.uk

Member of Centre for Window and Cladding Technology
www.cwct.co.uk

The work which is a subject of this document falls wholly or partly under the accreditation marked below:

ISO 17025 UKAS	✓
ISO 17025 IAS	☐
ISO 17025 GAC	☐
Non-accredited test	☐

D:\CW Testing\T 10-19\FR\TF075 FoldableDoorFR.docx

Page 2 of 31

CERTIFICATIONS

1. General Parameters

PROJECT NAME	FOLDABLE DOOR PROJECT	
TEST SEQUENCE		
Test 1	Air Permeability Test	BS EN 1026: 2016
Test 2	Water Tightness Test	BS EN 1027: 2016
Test 3	Resistance to Wind Load Test (P1 and P2 Load)	BS EN 12211: 2016
Test 4	Air Permeability Test	BS EN 1026: 2016
Test 5	Water Tightness Test	BS EN 1027:2016
Test 6	Resistance to Wind Load Test (P3 Load)	BS EN 12211: 2016

RELEVANT INFORMATION	
Type	Foldable Door
Materials	
Glass Type	Double Glazed: 6mm Clear Tempered Glass + 12mm Mill Finish Aluminium Spacer + 6mm Clear Tempered Glass
Glass Thickness	24mm
Specimen Size	3.0m wide by 4.0m height as per shop drawing
Flat/Curve	Flat and Vertical

Client	
Main Contractor	
Alum. Contractor	Aluma Gate Aluminum & Gate Installation
Consultant	

2. Witnesses

NAME	COMPANY	TELEPHONE
Mr. Larry Cura	Aluma Gate Aluminum & Gate Installation	0544473201
Mr. Richard Asis	Aluma Gate Aluminum & Gate Installation	0525727921

3. Door Test Result

Testing results were all recorded as mentioned below with reference to the test sheets attached, witnessed by representatives listed above during the course of testing.

4. Test Summary

4.1. Test History

No.	TEST	DATE & TIME	PASS / FAIL
1	Air Permeability, BS EN 1026: 2016	September 30, 2019	PASSED

- Differential test pressure = 300 Pascals
- Permitted leakage = 5.4 $m^3/hr/m^2$
- Specimen Area fixed glazing = 12 m^2
- Total allowable leakage for fixed glazing = 64.80 m^3/hr

Results:

- Specimen sealed with polyethylene sheet, Extraneous air leakage at 300 Pa (Q_E) = 139.9 m^3/hr.
- Total air leakage (Q_T) for chamber plus specimen at 300 Pa = 183.3 m^3/hr.
- Specimen air leakage (Q_S) at 300 Pa = 43.4 m^3/hr at standard condition.

Test Pressure, Pa	50	100	150	200	250	300
Allowable Leakage, m^3/hr	19.62	31.15	40.82	49.45	57.38	64.80
Actual Leakage, m^3/hr	3.1	12.8	20.5	37.7	40.4	43.4

The recorded actual leakage for infiltration tests is less than the allowable air leakage correspondingly. The test was recorded passed.

2	Water Resistance - Static Pressure Test, BS EN 1027: 2016	September 30, 2019	PASSED

The specimen was covered with 24 nozzles, producing a total of 5.28 gallons per minute of water volume flow (24 L/min) applied in the entire test specimen during the test.
Peak test pressure = 300 Pascals
Duration =15 minutes at zero test pressure (access door opened)
= 5 minutes each at 50, 100, 150, 200 and 300 Pa (access door closed)
= Total time for water spray is 40 minutes.
= 400 mm distance of water spray to face of the specimen
During the test, no water leakage was observed along internal side of the specimen and so the test was recorded passed.

3	Resistance to Wind Load Test - BS EN 12211: 2016	September 30, 2019	PASSED

Six linear displacement transducers (LDT) were positioned in place along internal side of the specimen to measure deflection values of horizontal and vertical members of the specimen.

The maximum deflection allowed was L/175 so obtained by deducting the average readings of the outermost gauges from the middle gauge of the member being measured. The following transducers were positioned as follows:

LDT #s	LDT #s LOCATION (refer to mock-up diagram)
1-2-3	Along the mullion
4-5-6	Along the mullion

The test procedure mentioned in the method statement was followed. After applying 3 pulse pressures. The positive wind load was applied in careful increments in accordance to the standard. The wind load pressure at 400 Pascal was held for 30 seconds at which the frontal deflections was recorded. The test was recorded passed.

Following this, the negative wind load was applied at 400 Pascal and held for 30 seconds at which the deflection was recorded. No visual damage was observed and the deflection reading were within the allowable limit. The test was recorded passed.

Wind Load	Applied Load Pa	L value, mm	Allowable Permanent Deflection of	Maximum net deflection recorded along member, mm

		L / 175, mm			
		Mullion	Mullion	1-2-3	4-5-6
+	400	3720	21.3	12.3	12.6
-	400			15.7	15.4

Refer to test sheet for details.

4	Air Permeability, BS EN 1026: 2016	September 30, 2019	PASSED

- Differential test pressure = 300 Pascals
- Permitted leakage = 5.4 $m^3/hr/m^2$
- Specimen Area fixed glazing = 12 m^2
- Total allowable leakage for fixed glazing = 64.80 m^3/hr

Results:

- Specimen sealed with polyethylene sheet, Extraneous air leakage at 300 Pa (Q_E) = 139.9 m^3/hr.
- Total air leakage (Q_T) for chamber plus specimen at 300 Pa = 185.5 m^3/hr.
- Specimen air leakage (Q_S) at 300 Pa = 45.6 m^3/hr at standard condition.

Test Pressure, Pa	50	100	150	200	250	300
Allowable Leakage, m^3/hr	19.62	31.15	40.82	49.45	57.38	64.80
Actual Leakage, m^3/hr	11.6	18.2	25.2	36.9	40.4	45.6

The recorded actual leakage for infiltration tests is less than the allowable air leakage correspondingly. The test was recorded passed.

5	Water Resistance - Static Pressure Test, BS EN 1027: 2016	September 30, 2019	PASSED

The specimen was covered with 24 nozzles, producing a total of 5.28 gallons per minute of water volume flow (24 L/min) applied in the entire test specimen during the test.
Peak test pressure = 300 Pascals
Duration =15 minutes at zero test pressure (access door opened)
= 5 minutes each at 50, 100, 150, 200 and 300 Pa (access door closed)
= Total time for water spray is 40 minutes.
= 400 mm distance of water spray to face of the specimen
During the test, no water leakage was observed along internal side of the specimen and so the test was recorded passed.

6	Resistance to Wind Load Test – Safety, BS EN 12211: 2016	September 30, 2019	PASSED

Prior to the safety load test (P3) application, (P2) load cycle application was conducted as per method statement. The wind resistance test to safety (P3) measured the residual deformation of the framing members after having applied 1.5 times the design load and released pressure. Initial test run was in the positive wind load direction and followed by the negative direction. Refer to tabulation below:

Wind Load	Applied Load Pa	L value, mm	Allowable Permanent Deformation of L/ 1000, mm	Maximum net deformation recorded along member, mm

Stars glass & aluminium Co.

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THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

File No: TF075

		Mullion	Mullion	1-2-3	4-5-6
+	400	3720	3.72	0.45	0.2
-	400			2.2	2.45

No detrimental effects nor sign of distortion and breakage occurred as observed and all deformation readings were found within the allowable limit and so the test was recorded passed.

4.2. Description of Modification or Adjustments

None

4.3. Compliance Statement

The Foldable Door system was tested as described in this document in conformance with the project requirement, with results of each test mentioned herein as recorded.
The test results are valid for the conditions under which the specimen was tested.

This Final Report is respectfully submitted by:
Thomas Bell-Wright International Consultants

Tested by:

Joselito Adoan
Testing Engineer

Reviewed and authorized by:

Clarence Facun
Testing Manager

P.O.Box: 26585
DUBAI - U.A.E.

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United Arab Emirates
Ministry of interior
Civil Defense G.H.Q

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وزارة الداخلية
القيادة العامة للدفاع المدني
لجنة اعتماد المختبرات العالمية
وبيوت الخبرة ومعاهد التدريب

TBWIC Issue No. 1

Date: 23-Jul-2020

CERTIFICATE OF COMPLIANCE

This certificate of compliance validates the following			
TEST REPORT NUMBER 'Assessment Reports' are not acceptable	TD130 Rev.0	CERTIFICATE NUMBER	TBW0100626
DATE OF ISSUE	25-Aug-2019	DATE OF ISSUE	15-Jul-2020
DATE OF EXPIRY	N/A	DATE OF EXPIRY	14-Jul-2023
Manufacturer details			
NAME OF FACTORY/ MANUFACTURER	Al Nojoum Aluminium & Glass Ind. Co. LLC	NAME OF THE BRAND	Stars Group
FACTORY ADDRESS / REGION (STREET / TOWN / CITY / COUNTRY)	Plot No. 3341, Bldg. No. 14, Street No. 71, Warehouse No.6, Sharjah Industrial Area 2, P.O. Box 3574, Sharjah, United Arab Emirates	MODEL / NO	Latched Single Acting, Single LeafDoorset
WEBSITE	www.starsaluminium.com	LOGO ON THE PRODUCT	
TEL	+971 6 543 3937	EMAIL	stars@starsaluminium.com

P.O.Box: 26585
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TBWIC Issue No. 1

Product Details From Test Report		Reference Test Report page NO
DESCRIPTION OF THE PRODUCT (TECHNICAL DETAILS FROM TEST REPORT, SUCH AS ACTUAL FIRE RATINGS/DIMENSIONS/THICKNESS/ SENSITIVITY ETC)	The latched single-acting, single-leaf steel doorset was composed of a leaf made of 1.5 mm thick galvanised steel sheet (ASTM A653 CS Type A) skin and mineral wool infill. The frame is made of 1.5 mm thick hot-dipped galvanised steel sheet (ASTM A653 CS Type A) with a minimum jamb depth of 150 mm, and a minimum 15 mm stop. The allowable dimensions are mentioned in Table 1 below. *Table 1:* Permitted dimensions Fire Resistance Rating (Integrity Only): 180 minutes [Note 1] Maximum Leaf Height: 2467 mm Maximum Leaf Width: 1162 mm Minimum Leaf Thickness: 49 mm Maximum Frame Height: 2524 mm Maximum Frame Width: 1259 mm Minimum Jamb Depth: 150 mm Minimum Jamb Stop: 15 mm *Note 1. The increase in the door dimensions are only valid for doorsets with a fire rating up to 180 minutes, and shall be pro-rata and SHALL NOT, in any case, result in an increase in doorset area of more than 20% over the tested doorset.* The Full details of the door construction and configuration can be referred to, in TBWIC Test report ref: TD130 Rev.0	Page 5,6
TEST STANDARD (SUCH AS ASTM/BS EN/ DINETC)	**EN 1634-1:2014+A1:2018;** Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 1: Fire resistance test for door and shutter assemblies and openable windows **EN 1363-1:2012;** Fire resistance tests - Part 1: General requirements **EN 1363-2:1999;** Fire resistance tests - Part 2: Alternative and additional procedures	Page 4
TEST DESCRIPTION	**General Description of the Assembly** The specimen consisted of a single acting, single leaf steel doorset with rockwool infill installed within a rigid supporting construction. The overall dimensions of the doorset were 1095 x 2195 x 150mm (w x h x Jamb depth). **Supporting Construction** The specimen was installed within a rigid supporting construction made of solid blocks with a nominal density of 2350kg/m³ and a structural opening of size 1105 x 2200 x 200mm (w x h x thk.). A 150mm thick reinforced concrete lintel was used along the head of the structural opening. The space between the head of the test frame and the lintel was filled with AAC blocks of density 550 kg/m³.	Page 4 to 6

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	The supporting construction was in turn installed within a rigid test frame made of steel and dense refractory castable with a density of 2000 kg/m³ and opening size of 3050 x 3050 x 200mm (w x h x thk). **Conditions and Test Situation** A nominal 5mm gap was maintained between the fixed edges of the framing system and the supporting construction on both vertical jambs and top horizontal jamb. The door frame was grouted with cement as decided by the test sponsor. The test specimen was tested with the door leaf opening towards the unexposed direction. The door did not have any latch. A panic bar was installed on the exposed face of the doorset. A surface mounted door closer was installed on the unexposed face of the doorset as decided by the sponsor of the test. The average value of retention force measure on the leaf was 86N. Pre-test conditioning for operability, as prescribed in section 5 of EN 1634-1:2014+A1 2018, was completed in accordance with section A.2.2 of EN 16034:2014. Prior to the test, the door leaf was opened to a maximum distance and allowed to return to the closed position over 25 cycles using the self-closing device. In accordance with section 10.1.4 of EN 1634-1:2014+A1:2018, after cycling the door remained in its final closed position. Gaps between the fixed and movable parts of the specimen have been measured (Appendix 4 of the test report). **SPECIMEN VERIFICATION** **Specimen Installation** Installation of the specimen: Stars Glass & Aluminium Co. The specimen was delivered and installed on 2-Jul-19. The specimen was covered with tarpaulin after installation and stored in ambient conditions at temperatures ranging between 25°C and 45°C and 21% to 87% humidity. **METHOD OF TEST** **Performance Criteria** Integrity failure of the specimen shall be deemed to have occurred if the specimen collapses, if sustained flaming for more than 10 seconds is observed on the unexposed face, a positive cotton pad test is taken, or permitting the penetration of gap gauges through the specimen, as specified in section 11.1 of EN 1634-1:2014+A1:2018. Insulation failure shall be deemed to have occurred if the mean unexposed face temperature exceeds 140°C above its initial value and maximum unexposed face temperature, if any regular thermocouple exceeds 180°C above the initial mean unexposed face temperature, if any thermocouple immediately adjacent to the edge of the leaf opening exceeds 360°C, or if integrity failure occurs, as per section 11.2 of EN 1634-1:2014+A1:2018. **Measurements** The time-temperature curve has been controlled using nine thermocouples distributed in the furnace, and the thermocouples were placed at 100mm from the exposed face of the specimens.	

	The ambient temperature at the commencement of the test was 35°C. The pressure in the furnace was controlled at 16Pa its relative position 2400mm above the sill of the furnace, in accordance with paragraph 5.2.1 and 5.2.2 of EN 1363-1:2012. Unexposed face temperatures & radiation at a distance of 1m from the centre of the specimen have been measured (Appendix 3 of the test report). Deflection has been measured at several locations (Appendix 4 of the test report).	
SPECIFICATION OF TEST SPECIMEN	1. Door Configuration The doorset is a latched single-acting, single-leaf steel doorset with a mineral wool infill. The leaf skin is made of 1.5 mm thick galvanised steel (ASTM A653 CS Type A). . 2. Leaf Construction a. Edge Construction Detail – "Interlocking Edge" construction made of 1.5 mm thick galvanised steel (ASTM A653 CS Type A), spot welded at a nominal distance of 20 mm from the ends and 500 mm centres. The edge construction details may not be changed. b. Top and Bottom Edge Channel – 43 × 20 × 1.5 mm (web × flange × thickness) galvanised steel channel, recessed type fixing, plug welded at a nominal 100 mm ends and 120 mm centres. 3. Core Mineral wool "SXXX" with a minimum density of 140 kg/m³ and thickness of 50 mm 4. Door Frame a. The door frame is made of 1.5 mm thick hot-dipped galvanised steel (ASTM A653 CS Type A), double rabbet jamb and header, with a minimum depth of 150 mm and minimum 15 mm stop, mitred joint, welded and ground smooth. b. Anchor Plate – Galvanised Steel, 148 × 55 × 1.5 mm (length × width × thickness) 5. Wall Fixing The doorset shall be fixed to the masonry wall using Ø10 × 132 mm (diameter × length) commercial-grade expansion bolt at a nominal spacing of 581 – 641 mm centres, 137 mm from top of the jamb and 240 mm from the sill. The frame shall be installed with frame backfill using cement masonry grout. The distance between each fixing location may not be increased. 6. Hardware a. Panic exit device – Stainless steel finish "Touch Bar Panic Latch CPH6080F" | ANSI/BHMA A156.3 (2008) Grade 1 by Consort Architectural Hardware Ltd. b. Hinges – Stainless Steel Butt Hinges 102 × 76 × 3 mm (width × height × thickness) Butt Hinges "HINBB443" by Euro Art c. Door Closer – Surface mounted door closer "DCT2024" by Eurospec Architectural Hardware Limited. All hardware items shall be as tested. Alternate hardware shall be upon the approval of TBWIC Certification.	Pages 10 to 13

	7. Hardware Reinforcements a. Frame Hinges Reinforcements – 165 × 38 × 4.5 mm (length × width × thickness) Hot Rolled steel fixed at a nominal distance of 177 mm from the sill, 155 mm from the top of the jamb and at 911 mm centres b. Hinge Cover - 1.5 mm thick Hot-dipped Galvanised Steel Note: The thickness of the steel used for hardware reinforcements are minimum and may not be reduced. Refer to test report no. TD130 Rev.0 for full details of hardware reinforcement specification, dimensions and fixing.	
TEST RESULT (SUCH AS PASSED CRITERIA___/ COMPLIED TO___/ DURATION___/OBSERVATION___/ETC)	Test Result: **PASS** Fire Rating: **up to 180 minutes (Integrity only)** Test Report Reference: TD130 Rev 0 Test Method: EN 1634 Part 1:2014+A1:2018	Page 8
PRODUCT APPLICATION GUIDELINE (END USE) (CLEARLY STATE THE END USE WITH SPECIFIC APPLICATION, SUCH AS EXACT FIRE RATING/TO BE INSTALLED IN___/TO BE INSTALLED AT___/TO BE CONNECTED WITH___/TO BE INSTALLED WITH___ ETC ALONG WITH ANY WARNINGS SUCH AS NOT TO BE USED IN___/NOT TO BE INSTALLED AT___/ NOT TO BE INSTALLED WITH___ETC.	1. This certification covers the performance of the doorset against the requirements of EN 1634-Part 1:2014+A1:2018 for fire resistance with respect to integrity only. 2. This certification covers the complete doorset assembly and does not cover individual components on their own. 3. This certification covers the maximum door dimensions, the specification of components, and specifications of ironmongeries & accessories as detailed in the test report. 4. The thickness of the steel sheet used in the door leaf and door frame are minimum and shall not be reduced unless otherwise approved by TBWIC certification. Heavier gauges are permitted. 5. The doorset was tested with a touch-bar panic exit device installed on the fire side. There were no door handles, mortise sashlock and cylinder used on the test. Due to the nature of the tested configuration, the performance of the doorset when fitted with door handles, mortise sashlock and a cylinder cannot be determined; therefore penetrations on the door leaf to allow the installation of lever-type door handles, mortise sashlock, a cylinder or any accessories which are not part of the tested door specification is not permitted unless otherwise approved by this certification 6. The door shall be installed only on a rigid supporting construction consists of either of blockwork, masonry or homogenous concrete wall with a minimum density of 2350 kg/m³ and thickness appropriate for the expected fire resistance period, with steel bolts fixing and with or without frame backfill. The spacing of the fixings shall not exceed what has been tested. Other types of supporting construction are not allowed unless otherwise approved by this certification. 7. The doorset covered under this certification shall be provided with label fixed at the specified locations which contain the details of the company, the rating of the door, the test standard and QR code that links to the current listing of the manufacturer to the TBWIC website.	

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وبيوت الخبرة ومعاهد التدريب

TBWIC Issue No. 1

Laboratory and Certification Body Details

	CERTIFICATION BODY	TESTING FACILITY
NAME OF CERTIFICATION BODY & TESTING FACILITY	Thomas Bell-Wright International Consultants	Thomas Bell-Wright International Consultants
CERTIFICATION BODY ADDRESS / REGION (STREET / TOWN / CITY / COUNTRY)	46th & 47th Sts. Jebel Ali Ind. Area 1 PO Box 26385, Dubai, UAE	46th & 47th Sts. Jebel Ali Ind. Area 1 PO Box 26385, Dubai, UAE
WEBSITE	www.bell-wright.com	www.bell-wright.com
TEL	+ 971 4 821 5777	+ 971 4 821 5777
EMAIL	certification@bell-wright.com	fire@bell-wright.com
ACCREDITED BY (ACCREDITATION BODY AND WEBSITE)	UKAS www.ukas.com	UKAS www.ukas.com
AS PER (STANDARD TO WHICH ACCREDITED)	ISO/IEC 17065:2012	ISO/IEC 17025:2017
VALIDITY (EXPIRY DATE OF ACCREDITATION)	No expiry subject to yearly audits.	No expiry subject to yearly audits.
REFERENCE NUMBER: (ACCREDITATION NUMBER)	6762	4439
LISTING WEBSITE	www.tbwcert.com	www.tbwtrs.com
CERTIFICATION MARK / LOGO	THOMAS BELL-WRIGHT	THOMAS BELL-WRIGHT INTERNATIONAL CONSULTANTS

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TBWIC Issue No. 1

(ENDORSEMENT) TO BE SIGNED BY MANUFACTURER			
NAME OF MANUFACTURER'S SIGNATORY	Mr. Rami El Masri	SIGNATURE	
EMAIL / TEL	rami@starsaluminium.com +971 56 77 88 872	FACTORY OFFICIAL SEAL	
NOTES: I Undertake that all data and information provided are genuine and accurate			

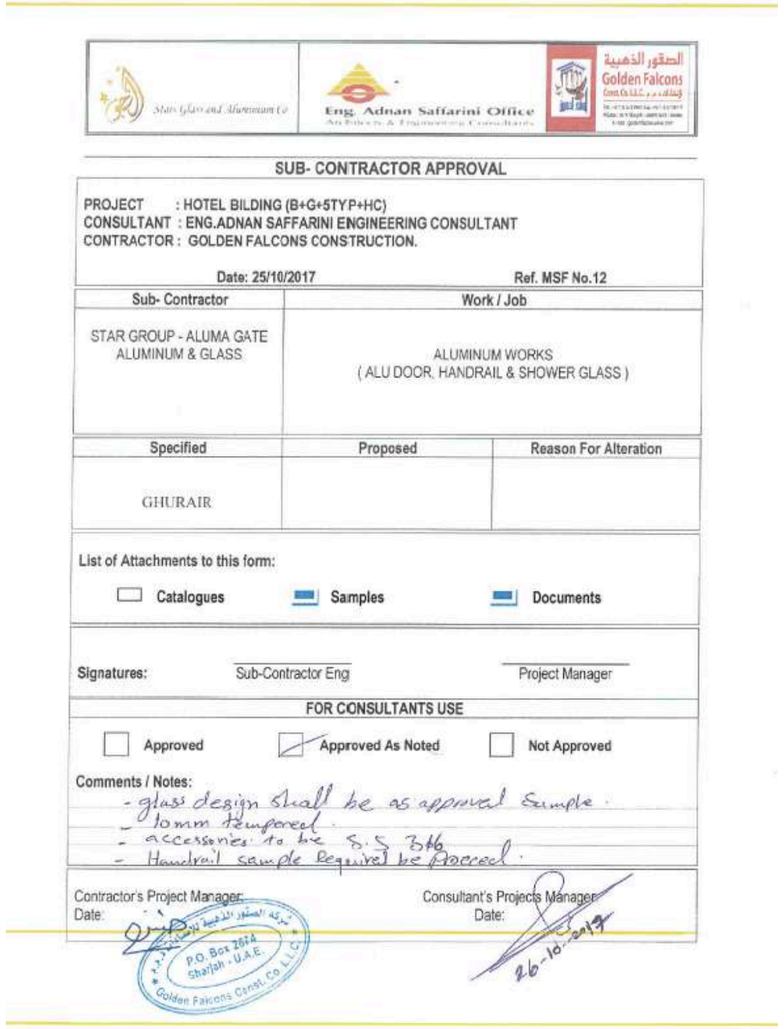
(ENDORSEMENT) TO BE SIGNED BY CERTIFICATION BODY			
NAME OF CERTIFICATION BODY SIGNATORY	Nicholas Purcell	SIGNATURE	
EMAIL / TEL	nick.purcell@bell-wright.com +971 4 821 5777	CERTIFICATION BODY OFFICIAL SEAL	P.O.Box: 26385 DUBAI - U.A.E.
NOTES: I Undertake that all data and information provided are genuine and accurate			

ATTACHMENTS:

- COPY OF 'CERTIFICATE OF COMPLIANCE' ISSUED BY CERTIFICATION BODY (OLD OR NEW)

Stars glass & aluminium Co.

APPROVALS



Stars Glass and Aluminium Co | Eng. Adnan Saffarini Office Architects & Engineering Consultants | الصقور الذهبية Golden Falcons

SUB- CONTRACTOR APPROVAL

PROJECT : HOTEL BILDING (B+G+5TYP+HC)
CONSULTANT : ENG.ADNAN SAFFARINI ENGINEERING CONSULTANT
CONTRACTOR : GOLDEN FALCONS CONSTRUCTION.

Date: 25/10/2017 Ref. MSF No.12

Sub- Contractor	Work / Job
STAR GROUP - ALUMA GATE ALUMINUM & GLASS	ALUMINUM WORKS (ALU DOOR, HANDRAIL & SHOWER GLASS)

Specified	Proposed	Reason For Alteration
GHURAIR		

List of Attachments to this form:

☐ Catalogues ☑ Samples ☑ Documents

Signatures: Sub-Contractor Eng Project Manager

FOR CONSULTANTS USE

☐ Approved ☑ Approved As Noted ☐ Not Approved

Comments / Notes:
- glass design shall be as approved Sample.
- 10mm Tempered.
- accessories to be S.S 316
- Handrail sample Required be Proceed.

Contractor's Project Manager: Date:

P.O. Box 2614 Sharjah - U.A.E. Golden Falcons Const. Co. L.L.C.

Consultant's Projects Manager: Date: 26-10-2017

Stars Glass and Aluminium Co | JABAL HAFEET BLDG CONT CO. L.L.C | QHC Architects & Engineers

SUB- CONTRACTOR APPROVAL

PROJECT: SHARJAH CO-PERATIVE SOCEITY, AL SEYOUH, SHARJAH
CONSULTANT: QHC ARCHITECTS & ENGINEERS
CONTRACTOR: JABAL HAFEET BLDG CONT CO. L.L.C

Date: 25/10/2017 Ref. MSF No.12

Sub- Contractor	Work / Job
STAR GROUP - ALUMA GATE ALUMINUM & GLASS	ALUMINIUM WORKS (ALUMINIUM DOORS, WINDOWS, STAINLESS STEEL WORKS)

Specified	Proposed	Reason For Alteration
GHURAIR		

List of Attachments to this form:

☐ Catalogues ☑ Samples ☑ Documents

Signatures: Sub-Contractor Eng Project Manager

FOR CONSULTANTS USE

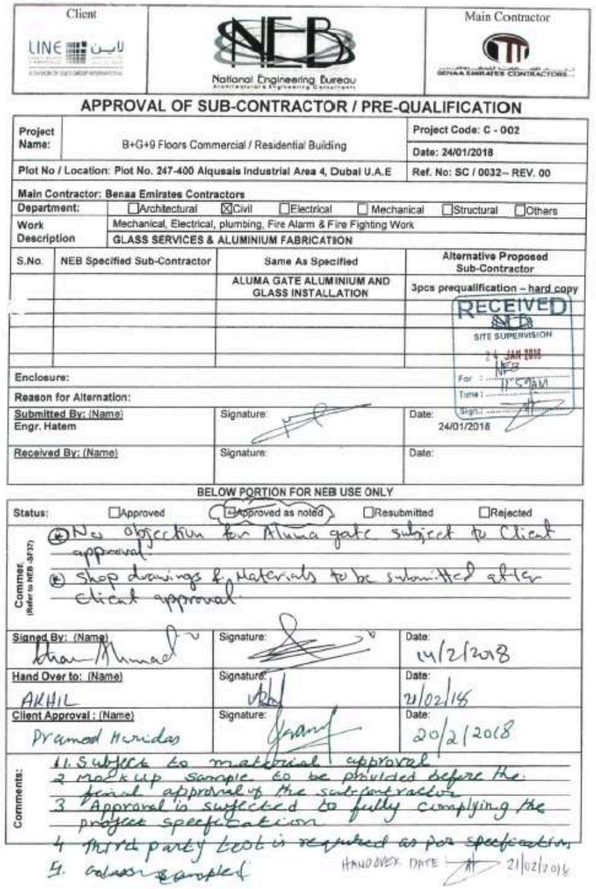
☐ Approved ☐ Approved As Noted ☐ Not Approved

Comments / Notes:

Contractor's Project Manager: Date:

جبل حفيت العالمية JABAL HAFEET INTERNATIONAL BLDG CONTRACTING L.L.C P.O.Box: 45795, Sharjah, UAE

Consultant's Projects Manager: Date:



Client: LINE | National Engineering Bureau | Main Contractor: Benaa Emirates Contractors

APPROVAL OF SUB-CONTRACTOR / PRE-QUALIFICATION

Project Name:	B+G+9 Floors Commercial / Residential Building	Project Code: C - 002
		Date: 24/01/2018
Plot No / Location: Plot No. 247-400 Alqusais Industrial Area 4, Dubai U.A.E		Ref. No: SC / 0032– REV. 00

Main Contractor: Benaa Emirates Contractors

Department: ☐ Architectural ☒ Civil ☐ Electrical ☐ Mechanical ☐ Structural ☐ Others

Work Description: Mechanical, Electrical, plumbing, Fire Alarm & Fire Fighting Work

GLASS SERVICES & ALUMINIUM FABRICATION

S.No.	NEB Specified Sub-Contractor	Same As Specified	Alternative Proposed Sub-Contractor
		ALUMA GATE ALUMINIUM AND GLASS INSTALLATION	3pcs prequalification – hard copy

RECEIVED NEB SITE SUPERVISION 24 JAN 2018 For ... Time ... Sign ...

Enclosure:

Reason for Alternation:

Submitted By: (Name) Engr. Hatem	Signature:	Date: 24/01/2018
Received By: (Name)	Signature:	Date:

BELOW PORTION FOR NEB USE ONLY

Status: ☐ Approved ☒ Approved as noted ☐ Resubmitted ☐ Rejected

Comments (Refer to NEB SPTI):
- No objection for Aluma gate subject to Client approval
- Shop drawings & Materials to be submitted after client approval

Signed By: (Name) Khan Mumad	Signature:	Date: 14/2/2018
Hand Over to: (Name) AKHIL	Signature:	Date: 21/02/18
Client Approval : (Name) Pramod Muridas	Signature:	Date: 20/2/2018

Comments:
1. Subject to material approval
2. Mock up sample to be provided before the final approval of the subcontractor.
3. Approval is subjected to fully complying the project specification
4. Third party test is required as per specification.
5. Colour sample

HANDOVER DATE 21/02/2018

Stars glass & aluminium Co.

LIST OF MACHINERIES

SR	MACHINE	DESCRIPTION	PURPOSE
1	Router Freezing Machine		Used for cutting and shaping aluminum profiles
2	Rotating Table – 4 Pneumatic Suction or Silicon		Used for handling and positioning glass during processing
3	Aluminium Cutting Machine		Used to cut aluminum profiles into desired sizes
4	Manual Glass CNC Cutting Table	Cutting Machine	Used for manual cutting of glass with CNC precision
5	CNC Cutting Machine	Cutting Machine	Automated machine for precise cutting of glass and aluminum
6	Straight & Shape CNC Cutting Machine	Cutting Machine	Used for straight and shaped cuts in glass and aluminum
7	Drilling Machine	Drilling Machine	Used to drill precise holes in aluminum and glass
8	Cutting Machine - Fabrication		Used for cutting aluminum profiles for fabrication
9	Rotating Table – 4 Pneumatic Suction	Repair & Maintenance	Used for repositioning glass during repair and maintenance
10	Router Freezing Machine		Used for precision routing and freezing of aluminum profiles
11	Air Compressor Machine		Provides compressed air for various machinery operations
12	Silicon Machine		Used to apply silicon to glass or aluminum surfaces
13	Glass Washing Machine		Cleans glass before further processing or installation
14	Butyl Machine		Used for applying butyl rubber to glass units for sealing
15	Spacer Bending Machine		Bends spacers used in insulated glass units
16	Manual Cutting Machine	Cutting Machine	Used for manual cutting of materials like glass and aluminum
17	Manual Milling Machine	Milling Machine	Used for manual milling of aluminum profiles
18	Double Head Cutting Machine	Cutting Machine	Cuts large aluminum profiles or glass pieces with two heads for efficiency
19	Automatic Cutting Machine	Cutting Machine	Fully automated machine for high-precision cutting of glass and aluminum
20	Crimping Machine		Used for crimping aluminum profiles to ensure secure joints