INTRODUCTION

Aluminum honeycomb panel is a kind of sandwich panel consinsting of two aluminum sheet and hexagonal aluminum honeycomb cell as core material. Thanks to its superb characteristic of light weight, good strength, hyper flatness, sound and heat proof, aluminum honeycomb panel has transferred from aviation industry's usage to civil application, and tend to be the most popular light panel, widely used in facade cladding industry, interior decoration, ceiling, partition, furniture industry, ship hull building and ship decoration, vehicle building and so on.

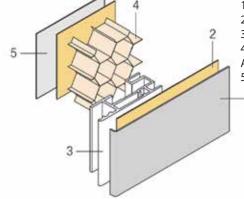
SPECIFICATIONS OF ALUMINUM HONEYCOMB PANEL

- 1) Total thickness: 6 mm 200mm
- 2) Aluminum thickness: 0.3mm 2mm
- 3) Width: 300mm 200mm; Length: 200mm 55000mm
- 4) Special size is available as required.
- 5) Superface finish: Available with various kinds of color, in PVDF or PE coating.
- Special finish: Granite or wood look, silver/gold brush, mirror faced, chameleon.

Customized color are available upon request.

APPLICATION OF ALUMINUM HONEYCOMB PANEL

- 1) Facade or curtain wall cladding
- 2) Interior wall decoration, ceiling, partition panel
- 3) Furmiture material, such as tebletop, doors
- 4) Aircraft doors and hatches
- 5) Racing car chassis and truck body



- 1. EXTERNAL ALUMINUM SKIN
- 2. ADHESIVE 3. ALUMINUM HONEYCOMB

1

- 4. EXTRUSION OF PERIMETER ALUMINUM
- 5. ALUMINUM INTERIOR SKIN



Structural Adhesives

Aluminum alloy sheet

Aluminum honeycomb core

Main Features





TECHNOLOGY PARAMETERS

- Bending strength: 17.9 Mpa
- Compression strength: 1.33 Mpa
- Tensile shear strength: 0.6 Mpa
- Thinckness deviation: +- 0.5mm
- Flatness deviation: +- 1.0 mm
- Every Volume: 32 dB



ADHESIVE FOR PANEL LAMINATING

Adhesive film:

The thermoplastic film improves the glue's cohesive strength, flexibility and bonding strength with aluminum sheet, which secures the application of honeycomb panel in long term. Flim for option: 1) 117°C, 2) 180°C

PRODUCT FEATURES

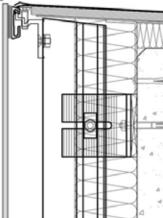
-Light weight: standard panel per square meter weights only 16Kg. and 6mm thick glass quite, is only 1/50 of the weight of stone material with thickness.

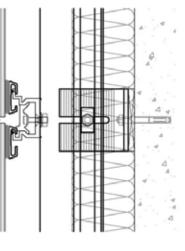
-impact resistance: resistance to impact strength than 3cm thick granite big 10 times.

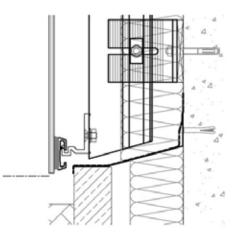
-Various sizes: standard panel size 1200 x 2400mm, according to actual situation and provide all kinds of size specification panel.

-High strength: after acid freeze-thaw test (a 35°C - 50°C) cycle 120 times, not the strength of reduced. -Convenient installation, costs less insulation, heat insulation effect is good.

LUMINUM HONEY COMB INSTALLATION







PARAPET

HORIZONTAL JOINT

BOTTON

-Specifications	Super micro-aperture			Micro-aperture				Regular honeycomb						
(mm)	honeycomb			honeycomb										
Cell size available	1/30″	1/25″	1/15″	1/10"	1/8″	1/6″	1/5″	1/4″	1/3″	3/8″	1/2″	3/4"	4/5″	1″
(mm)	0.87	1.04	1.73	2.6	3.17	3.47	5.2	6.35	8.47	9.53	12.7	19.05	20.32	25.9
Alu foil Alloy&thk (mm)	3003H18 0.025 0.03	3003H18 0.025 0.03	3003H18 0.04	0.05 5052H	118: 0.04 5,0.06 118:0.04 5, 0.06	06,0.07 5052H	0.04,0.05,0. ,0.08, 0.1 118:0.04 5, 0.06	3003H18:0.04,0.05,0.06,0.07,0.08,0.1 5052H18:0.04,0.05, 0.06						
Max expanded size (mm)	300 x 300	300 x 300	1000 x 1000	1200 x 1200	1500 x 1500	2000 x 1600	2000 x 1700	8000 × 1700						







Aluminum honeycomb panels Fiberglass honeycomb composite panels Standard Thickness: 6mm,10mm,15mm,20mm,25mm	Standard size	:: 1200x2500mm & 1!	500x1400mm				
Fiberglass aluminium haneycomb panel technical data							
Panel-Thickness:	6mm	10mm	15mm	20mm	25mm		
Fiberglass,front side (mm)	1	1	1	1	1		
Fiberglass,back side (mm)	1	1	1	1	1		
Weight [kg/mm2]	3.6	4.05	4.35	5	5.31		
Technical Propertles:							
Fiberglass type		ur	saturation resin b	ase			
Modulud of Elastlcity [N/mm2]			70′000				
Tensile Strength of cover sheets [N/mm2]			Rm*220				
0.2% Proof Stress [N/mm2]	Rp02*130						
Elongation	A50*8%						
Temperature Resistance	-40* to+90*						
Linear Thermal Expansion	1.2 mm/m at 100* temperature difference						
Surface:							
Front skin	1.0mm Fiberglass unsaturation resin base						
Rear skin		1.0mm Fiberg	lass unsaturation	resin base			
Honeycomb Core:							
Cellsize		"1/4",3/8", 1/2"					
Bonding Glue:							
Two-components modified epoxy resin	poxy resin H.B Fuller						
Brand:							
Dimensional Tolerances:							
Thickness		*0.5mm					
Width	0/+2mm						
Length			0/+3mm				

ALUMINIUM CORE PANELS

MetallicSolution.com

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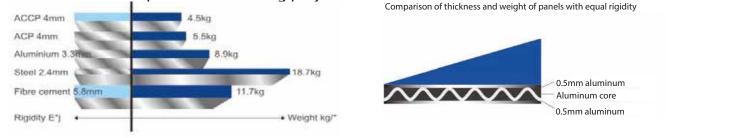
ALUMINIUM CORE PANEL

ALUMINIUM

CORE PANEL: Aluminium core pand (ACCP/Aluminium 3D panel) is a composite panel consisting of two aluminium sheets and aluminium core.

> The superb properties of this materials boots one's inspiration and offer architecture a whole new range of solutions-no matter your proyect is a private home or public building.

It is can be used at metro station, banks or hotels, supermarkets and stadium or hospitals and other big projects.



PANEL PROCESSING:



Sawing

Cutting

Bending



 $\Lambda \Lambda \Lambda /$ Glueing



Decorative Work

1. The adhesive direct construction method

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Riveting

- 2. Double-sided adhensive tape and adhensive and usage
- 3. Curtain wall dry hanging construction method
- 4. The building curtain wall

Welding

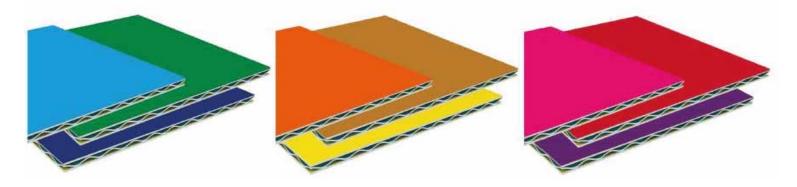
REQUIRED THICKNESS AND ACTUAL WEIGHTS WITH SAME REGIDITY

	Aluminiun	n		Solid alu	minium	Aluminium composite panel		
Rigidity (EJ)	Section modulus	Thickness	Weight	Thickness	Weight	Thickness	Weight	
1250 kN cm²/m	1.25 cm³/m	3 mm	3.5 kg/m ²	2.7 mm	7.3 kg/m ²	3 mm	4.5 kg/m ²	
2400 kN cm ² /m	1.25 cm³/m	4 mm	4.5 kg/m²	3.3 mm	8.9 kg/m²	4 mm	5.5 kg/m ²	

Thickness		± 0.2 mm
Width		-0/+4 mm
Length	1000-4000 mm	-0/+6 mm
Length	4001-6000 mm	-0/+10 mm

Specification	1220 (width) * 2440(length) * 4(thickness)mm		
	1220 (width) * 2440(length) * 4(thickness)mm		
Special Size	Width: 1000mm,1250mm, 1550mm, 1600mm		
Maximum Length	< 6000mm		
Minmum Order	Standard colour: 600 m ² , Special colour: 1000m ²		

UPON REQUEST



HONEYCOMB PANELS





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HONEYCOMB PANELS







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HONEYCOMB PANELS



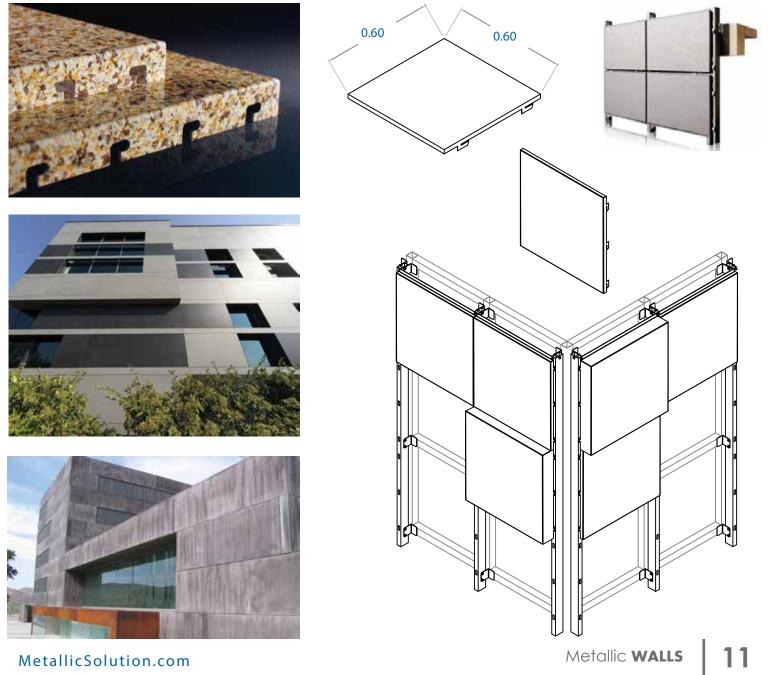


Metallic WALLS ALUMINUM CLADDING PANEL

ALUMINUM CLADDING PANEL

CLADDING

PANEL: Aluminum cladding is made of high quality and high strength aluminum alloy sheet, common thickness used is 2, 2.5, 3 type 3003, and status H24. The maximun size of the conventional material is 1220 mm x 2400mm. The structure is mainly composed of panels, stifeners and bracket components. the bracket components can be directly formed from the panel through mounting the brackets on the hems of the panel. The stiffeners are connected to the welding screw on the back of the panel, to become a solid whole component, has greatly enhanced the strength and rigidity of the aluminum cladding, and ensured the smoothness and seismic capacity in the long-term use. If noise and heat insulation is needed, material with high efficiency of noise and heat insulation can be intalled in the inside of the aluminum sheet.



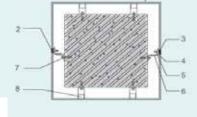
ALUMINIUM CLADDING PANEL



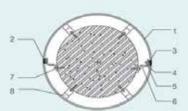


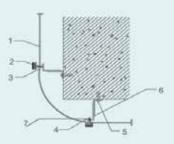


Aluminum cladding
 Weather resistant sealant
 Foam pad
 Staggered installation of suspended ear
 Self-tapping Screws
 Angle steell welding after leveling
 Expansion bolt
 Aluminum square tube



- Aluminum cladding
 Weather resistant sealant
 Foam pad
 Staggered installation of suspended ear
 Self-tapping Screws
 Angle steell welding after leveling
 Expansion bolt
 Aluminum square tube
- 1.Aluminum cladding 2.Weather resistant sealant 3.Foam pad 4.Staggered installation of suspended ear 5.Expansion bolt 6.Angle steell welding after leveling 7.Self-tapping Screws

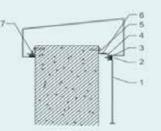


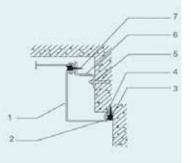




Aluminum cladding
 Weather resistant sealant
 Foam pad
 Staggered installation of suspended ear
 Expansion bolt
 Angle steell welding after leveling
 Self-tapping Screws

Aluminum cladding
 Weather resistant sealant
 Foam pad
 Staggered installation of suspended ear
 Expansion bolt
 Angle steell welding after leveling
 Self-tapping Screws





DRY-HANG

PLATE: A new type of construction technology in wall decoration. The method of metal pendant will be hanging directly on the wall or hanging in the wall hanging on the steel frame, no grouting paste. The principle is the main structure of the main force on the point, through the metal pendant plate will be fixed in the building, the formation of decorative curtain wall.







WALL ALUMINUM

VENEER: INSTALLATION INTRUCTIONS

-According to design drawings and lofting a keel aluminum surface to complete the line;

-Determine the costruction direction, ruled by size requirements installed the main and auxiliary keel (square steel keel); keel ensure fltness of the surface;

- aluminum veneer installation: Required installed aluminum veneer, surrounded corner are self-tapping screws, then insert into the aluminum layering:

-installation process should keep hands clean, can not have sweat, oil and other unclean phnomenon.



HYPERBOLIC

PLATE: Aluminum panel light weight, waterproof, anti-fouling,fire prevention, corrosion resistance, good processability, low maintenance cost, long service life. aluminum curtain wall veneer can be booked into a solitary form and abnormity, the surface of the different form, make the building more noble and elegant style.

suitable for al kinds of building external walls, the lobby facade, column, elevated corridors, pedestrian bridge, elevators bag, balcony package while, widely recently signs, indoor decoration alien condole top, etc.





Metallic **WALLS** ALUMINUM SHEET

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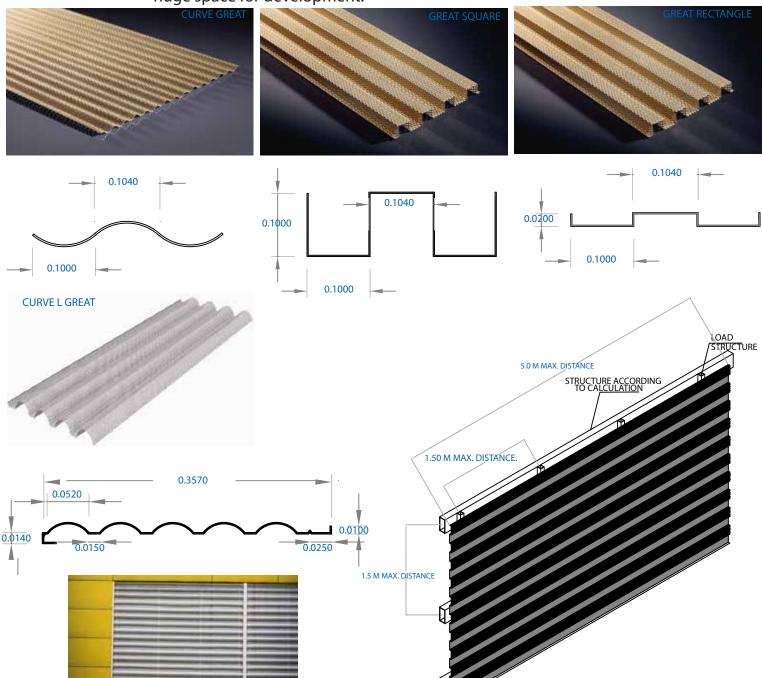
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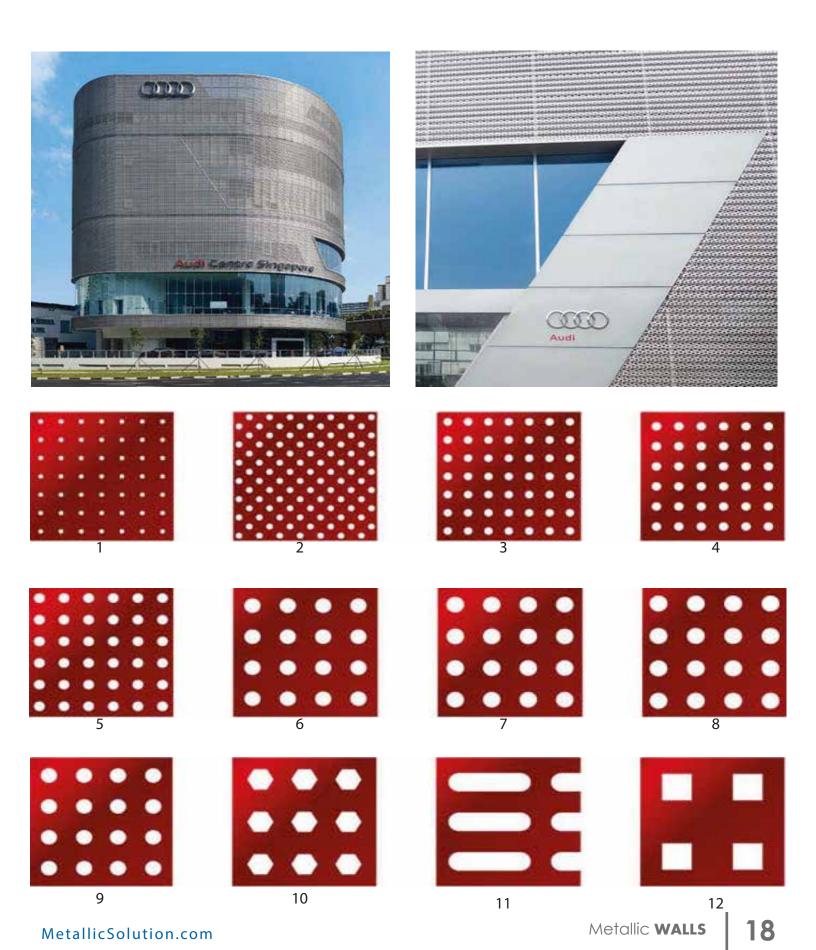
GREAT WALL

GREAT WALL: Metal eco aluminium decorative materials, can be applied not only indoors, but also can be outdoors.

It is also suitable for use in construccion, building materials, decoration materials industry, the furniture industry and other industrial products; can be processed into sound- absorbing panels, wall panels, door panels, door frames, window frames, skirting, waist, corner line, door so a variety of decorative materials, which extends out of the product can reach hundreds of varieties used in various industries, with a huge space for development.



PERFORATIONS



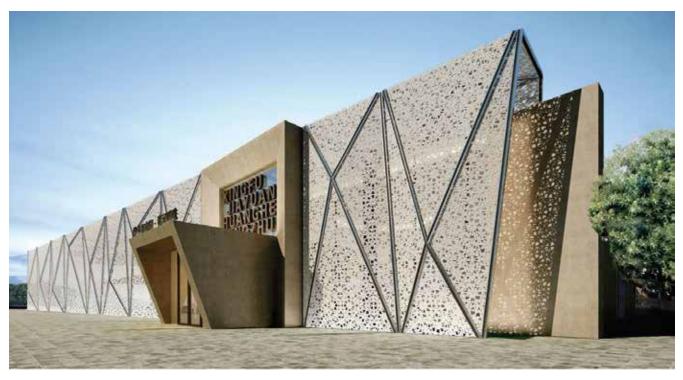
ALUMINUM

SHEET: The hollowed carving as a kind of carving technology, requires exquisite and delicate process. Designers cleverly integrated into the moderm architectural decoration of this element, brig to us the decorative art with fashion and personality. Engraving sheets can give a sense of continuous extension into the depth of space on the plane sheets, with a transparent and ventilate role. Matching different patterns, and different sizes of holes with changes in density makes the objest plane dynamic, combined with different shapes and environments for sculpt shaped handling, so that the line is more lively, elegant, breaking through the traditional design concept, which is more suitable for many occasions such as all kinds of modern senior clubs, offices and so on, opens the endless thinking space which is full of citality for the fashion family, it is really a practical and beautiful new decoration form.

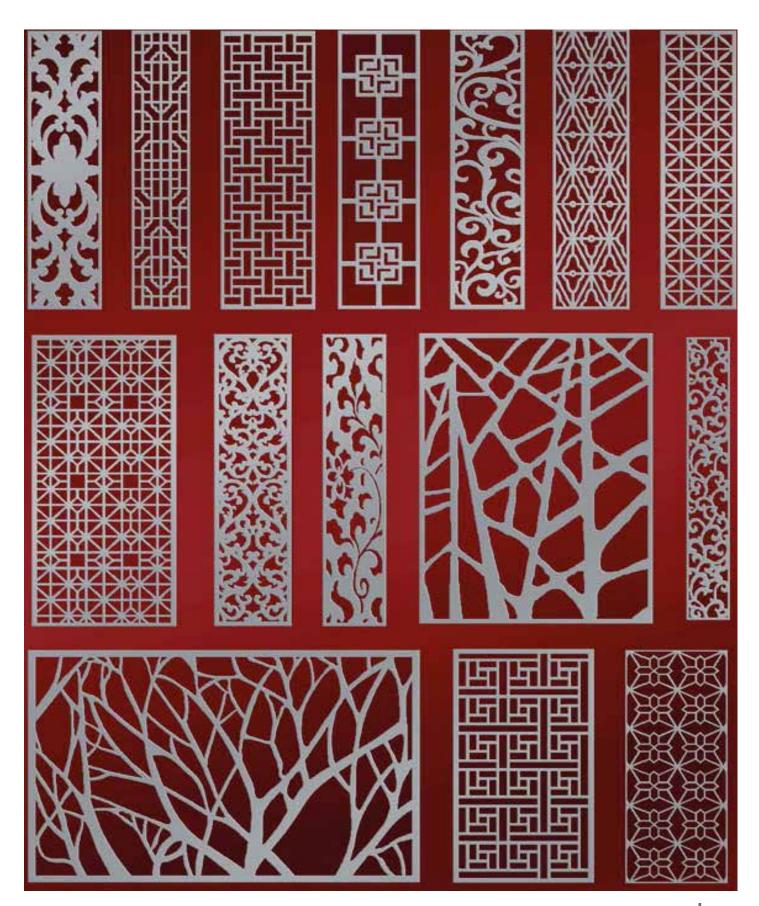




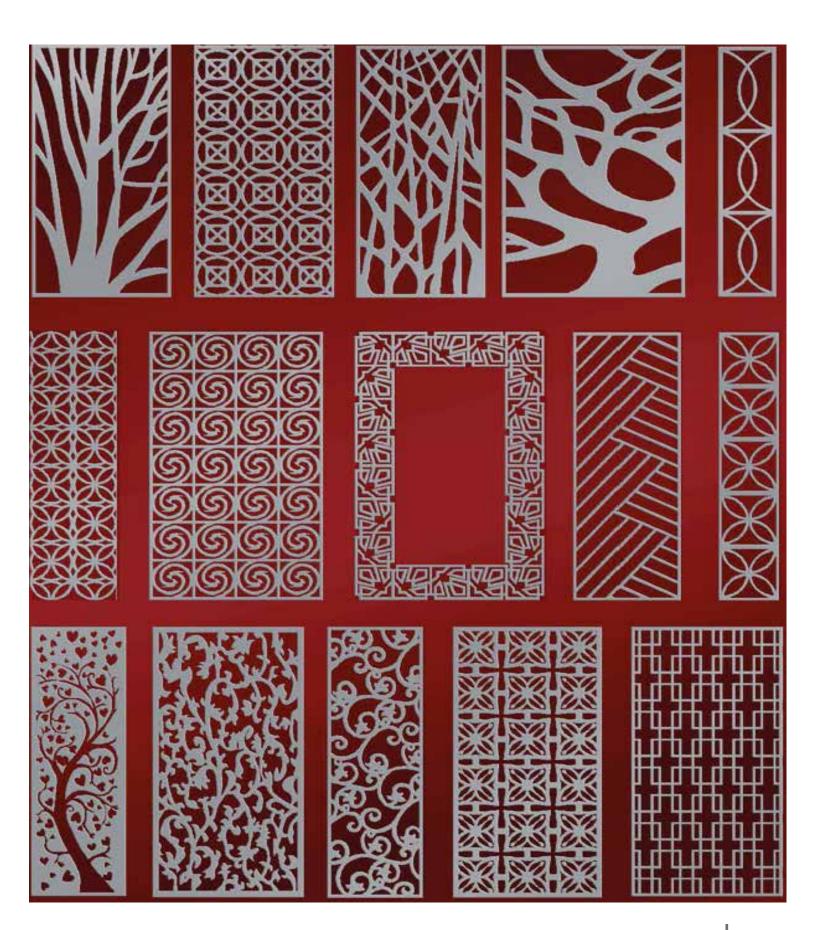




DESIGNS



DESIGNS

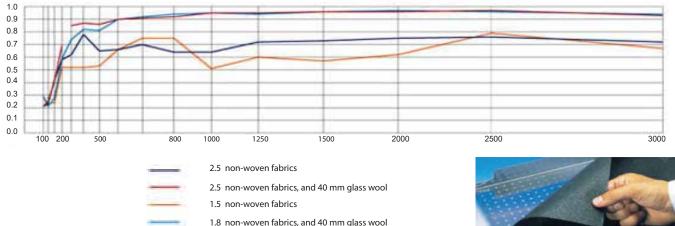


NOISE ABSORPTION

ABSORPTION Perforated metal ceiling products can solve the problem of noise effectively. When the source of the noise is in the specified sound absorption range, after the noise passes through noise absorption material, friction caused and makes the acoustic energy to be converted into heat energy. thereby reducing the acoustic wave. In the outdoor or indoor environment, the perforated from of the ceiling and the difference of noise absorption material may affect its absorption ability and characteristics. Different perforated mode and the content of absorbing material, are all turned up to be catered to different degress of noise absorption requirements.

"Noise Absorption" means absorb most of the sound, to reduce the reflection of sound waves. As show in figure A, the use of very thin noise absorbing material can achieve a fairly good sound insulation effect.





PROJECTS











Averallic WALLS AWNIN LOUVERS

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PRODUCT ADVANTAGES:

ADVANTAGES: The external awning of the building is one of the passive energy saving measures to prevent, in an effective way, the direct sunlight getting into the interior through the exterior window, the design of appropriate external shading measures can prevent sun radiation resulting in over heat structureof the building envelope, and effectively avoid indoor glare, thereby reducing building energy consumption, and can also increase indoor comfort, Moreover, the exterior awning components can also enrich the facade of the building, giving a more beautiful appearance for the fecade of the building.



Electrodynamic Awning louvers





AWNIN LOUVERS

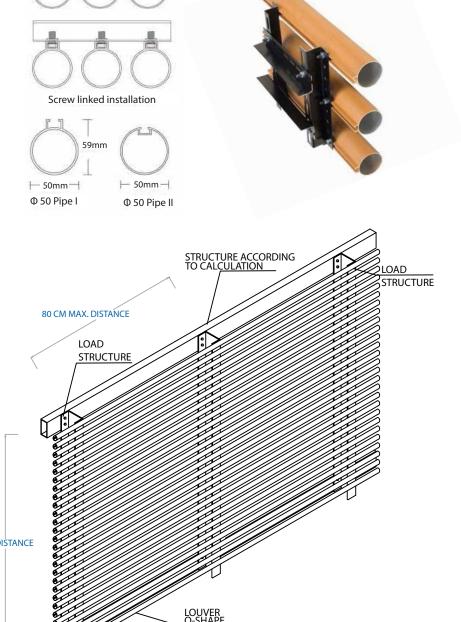
AWNIN LOUVERS:

The fixed type awning louvers is of simple structure, high structure strength good permeability, easy to be cleaned, beatiful and tidy appearance, very easy to be used in large quantily. It is widely used in all kinds of office buildings and home decoration architecture. Size: Whatever your project requires. Thickness: 1.0mm-3.0mm

TYPES OF LOUVERS

O-SHAPE

- Material: aluminum
- Thickness: 0.5mm or 0.6mm
- Colors: more than 100 standard and
- special colors upon request
- Uses: bankruptcy
- Termination: Standar and Woodgrains
- Measurement: maximum length 3
 meters
- Yield: 50 profiles / m2







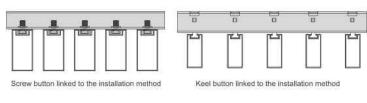
1.5 M CM MAX. DISTANCE

AWNIN LOUVERS

BULLET-SHAPE/TU-SHAPE

- Material: aluminum
- Thickness: 0.5mm or 0.6mm
- Colors: more than 100 standard and special colors upon request
- Uses: bankruptcy
- Termination: Standar and Woodgrains

• Measurement: standard nominal size is 25x70mm, 30x80mm, 50x100mm, etc, special size. maximum length 3 meters

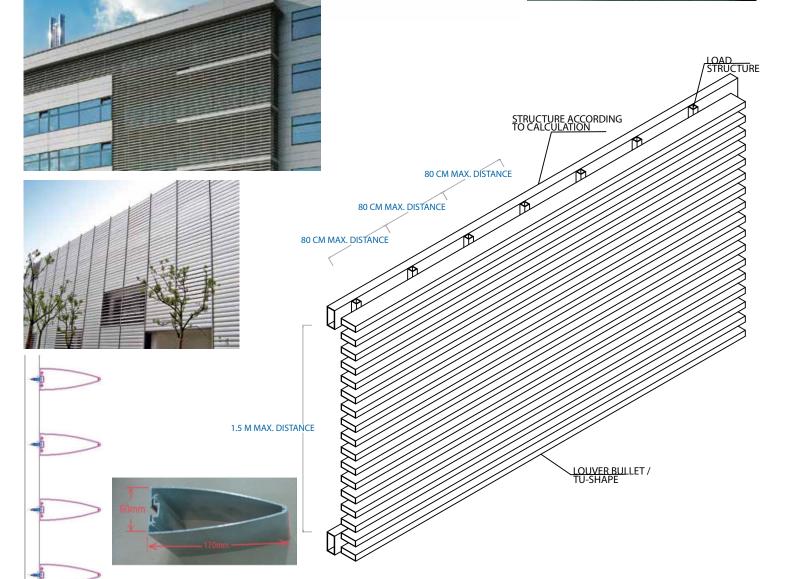


TU-SHAPE

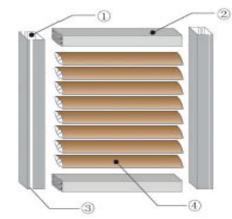


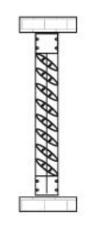
BULLET-SHAPĒ

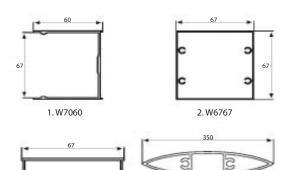




AWNIN LOUVERS



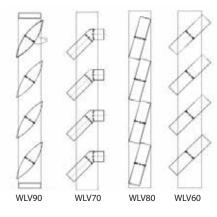




3.W7060A



- Material: aluminum
- Thickness: 0.5mm or 0.6mm
- Colors: more than 100 standard and special colors upon request
- Uses: bankruptcy
- Termination: Standar and Woodgrains
- Measurement: Maximum length 5
 meters



4. WLV90



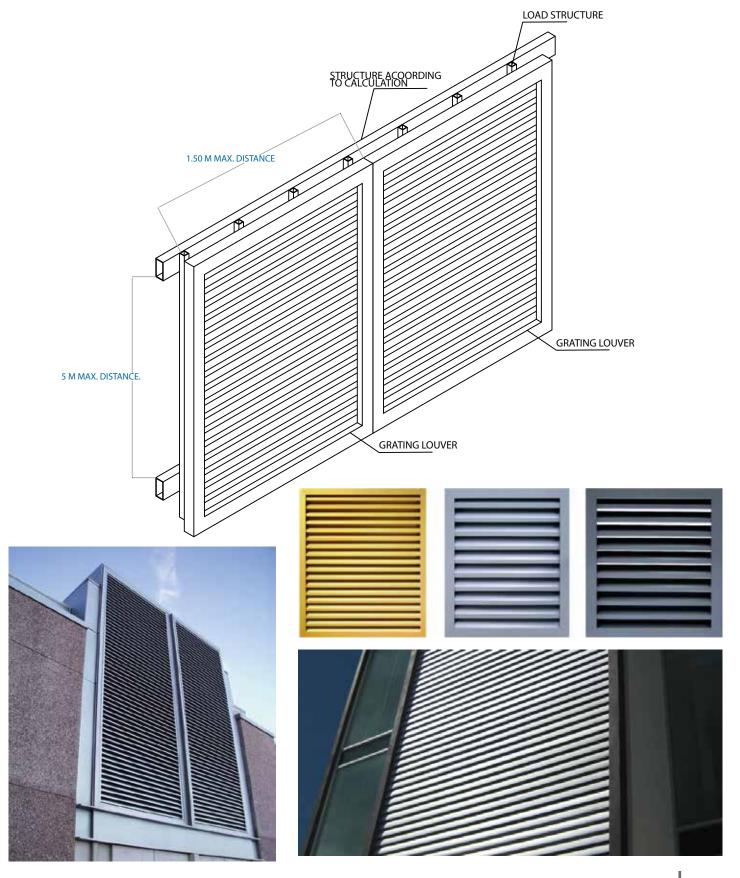
Parameters of the outdoor sunshade louver series products

Legend name	Name (model)	Specification (thickness*de- gree) mm	Length (mm)
\bigcirc	HSL-I01	24x150	The recpmmended installation length is within 2000 mm
	HSL-102	40x200	
	HSL-103	50x180	
$\langle \rangle$	HSL-104	60x240	



Note: There are still a variety of profiles of different forms and specifications not mentioned here, and we welcome users to consalt us



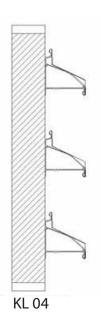


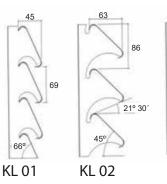
AWNIN LOUVERS

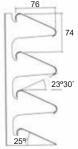
KEEL LOUVER

- Material: aluminum
- Thickness: 0.8mm or 3 mm
- Colors: customized according to customer requirements
- Specifications: customized according to customer requirements (mm)
- Surface processing: outdoor powder coating

 Surface treatment: outdoor full polyester powder coating (automatic electrostatic spray line, uniform color)







KL 03

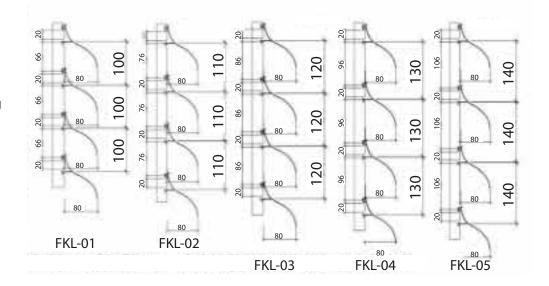




AWNIN LOUVERS

FIXED KEEL LOUVER

- Material: aluminum
- Thickness: 0.8mm or 3 mm
- Colors: customized according to customer requirements
- Specifications: customized according to customer requirements (mm)
- Surface processing: outdoor powder coating
- Surface treatment: outdoor full polyester powder coating (automatic electrostatic spray line, uniform color)





AWNIN LOUVERS

ROTARY LOUVER

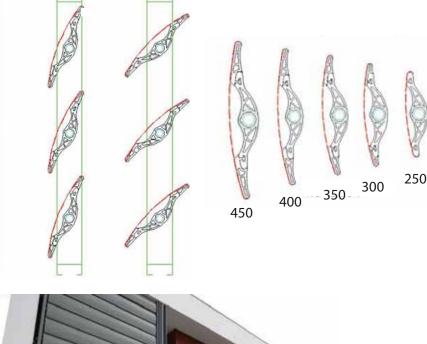
- Material: aluminum
- Thickness: 0.8mm or 3 mm
- Colors: customized according to customer requirements
- Specifications: customized according to customer requirements (mm)
- Surface processing: outdoor powder coating

• Surface treatment: outdoor full polyester powder coating (automatic electrostatic spray line, uniform color)

ACONTRACTOR











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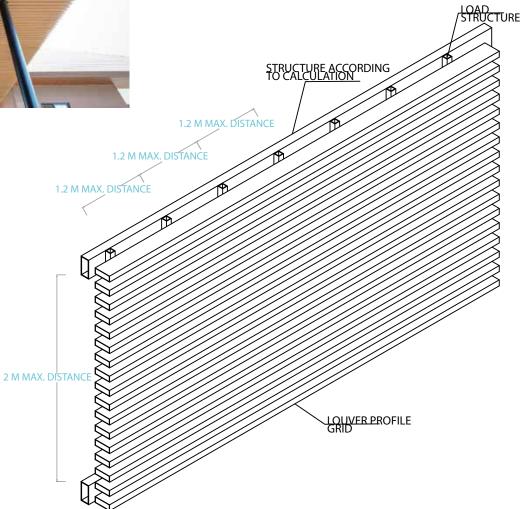
AWNIN LOUVERS

LOUVER PROFILE GRID

- Material: aluminum
- Thickness: 0.5mm or 0.6mm
- Colors: more than 100 standard and special colors upon request
- Uses: bankruptcy
- Termination: Standar and
- Woodgrains
- Measurement: Maximum length 5
 meters







AWNIN LOUVERS

