

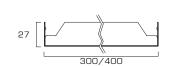
Data Sheet ENIGMA

DESCRIPTION

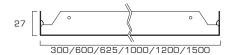
Suspended ceiling system made up of steel or aluminum tiles installed on hidden structure. Enigma tiles are available with right or bevelled edge.

SECTIONS _

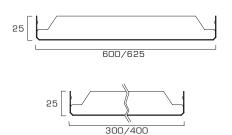
RIGHT EDGE

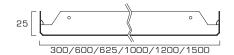


600/625

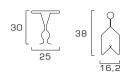


BEVELLED EDGE





STRUCTURE PROFILE SECTION



Enigma can be installed with five different hidden structures.

TECHNICAL DATA

600x600 mm - 625x625 mm - 300x300 mm - 300x1200 mm 300x1500 mm 400x1000 mm - 400x1200 mm - 400x1500 mm TILES DIMENSION Other dimensions on request TYPE Clip-in tiles Right or bevelled edge MATERIAL AND WEIGHTS Aluminum 5/10: 1,61 kg/sqm 1,92 kg/sqm 2,24 kg/sqm Aluminum 6/10: Aluminum 7/10: Steel 5/10: Steel 6/10: 4,60 kg/sqm 5,52 kg/sqm HIDDEN STRUCTURE Single triangular structure

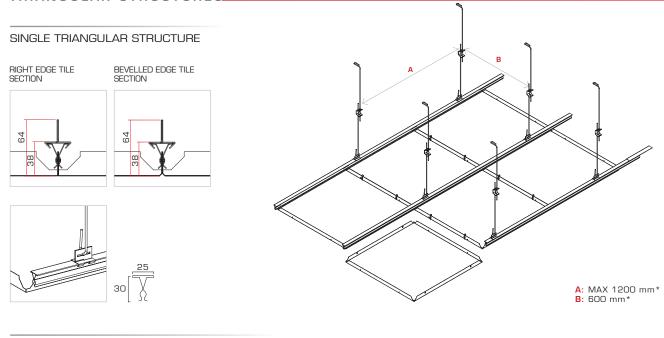
Double triangular structure with Winger Single continental structure Double continental structure with Winger

Double continental structure with Winger Double continental structure with "U" profile

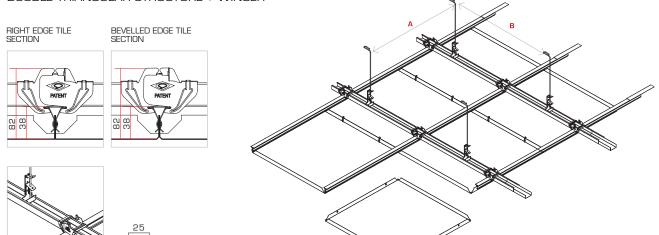
CERTIFICATIONS						
FLEXION RESISTANCE	Maximum span mm 1200 - 1 Class					
DURABILITY OF PRE AND POST PAINTED MATERIALS	C Class					
DURABILITY OF GALVANISED MATERIALS	B Class					
RELEASE OF DANGEROUS SUBSTANCES	No release of any dangerous	substance according to European Law EN 13964:2014				
FIRE REACTION		l: plain or perforated tiles with Viledon Plus A1 Class Viledon A2s1dO Class - structure A1 Class				
ACOUSTIC TEST	Refer to Atena Acustic Catalo	gue				
BEARING CAPACITY	model 600x600: 8 kg/sqm	model 300x1200: 10 kg/sqm				

TRIANGULAR STRUCTURES

MODEL $600 \times 600 \text{ mm}$



DOUBLE TRIANGULAR STRUCTURE + WINGER

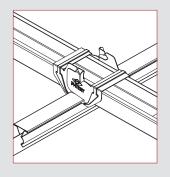


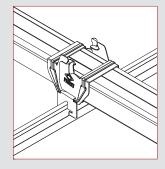
^{*}Interaxe to be verified according to the load on m2.

WINGER

PATENTED

Winger is a safe and easy hooking system conceived to fix triangular and continental profiles to "C" carrier in few steps. The best way to reduce installation time in comparison to traditional systems.



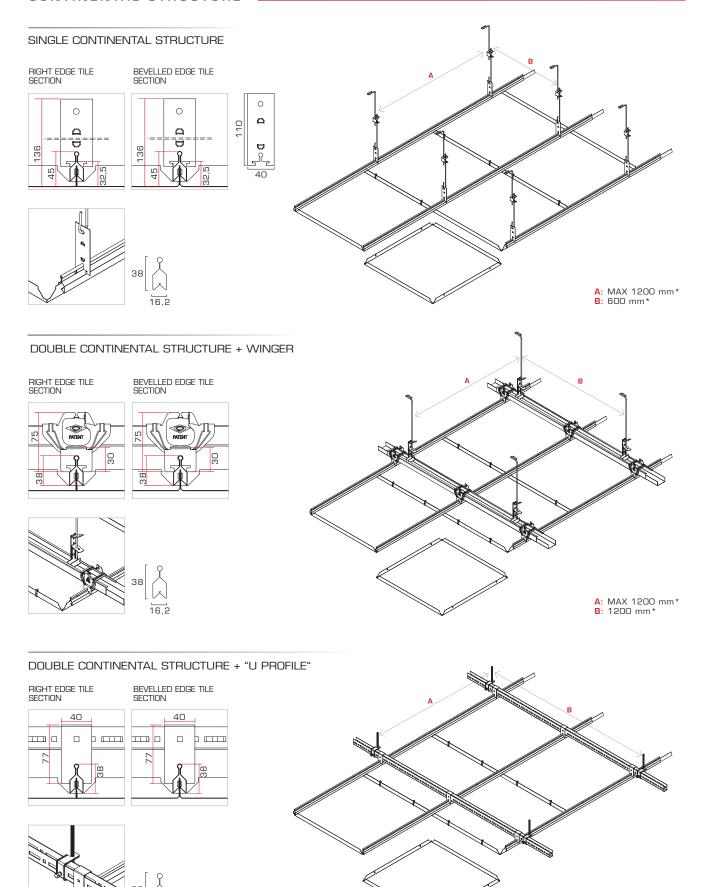


A: MAX 1200 mm* B: 1200 mm*

MODEL 600 x 600 mm

A: MAX 1500 mm*

CONTINENTAL STRUCTURE

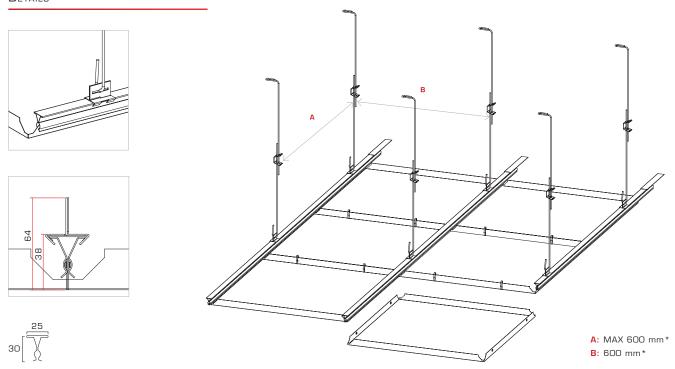


^{16.2} *Interaxe to be verified according to the load on m².

SINGLE TRIANGULAR STRUCTURE _

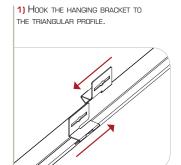
MODEL 600 x 600 mm

DETAILS

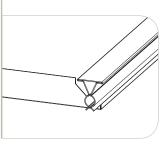


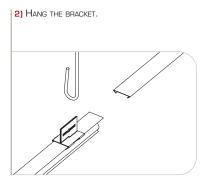
Laying instructions:

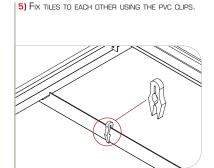
- Draw the lines of the perimeter frame.
- Determine the height of the ceiling with a level and mark it with a string.
- Install the perimeter profiles.
- Proceed with the hangers.
- Install structure and tiles as following:



4) COMPLETE THE INSTALLATION OF THE TILES PUSHING THEM ON PROFILES.









MODEL 600 x 600 mm

















	SINGLE TRIANGULAR STRUCTURE									
ID	DESCRIPTION	MATERIAL	QUANTITY							
1	ENIGMA TILE	steel / aluminum	(pcs/sqm)	2,78						
2	TRIANGULAR PROFILE L=4000 mm	galvanised steel 5/10	(lm/sqm)	1,70						
3	TRIANGULAR PROFILE JOINT	galvanised steel 5/10	(pcs/sqm)	0,45						
4	FIXING CLIP FOR TS	galvanised steel 5/10	(pcs/sqm)	1,5						
5	CLIPS	PVC	(pcs/sqm)	4						
6	Ø4mm DOUBLE SPRING	spring steel	(pcs/sqm)	1,5						
7	Ø4mm HANGER WITH EYE	galvanised steel	(pcs/sqm)	1,5						
8	Ø4mm HANGER WITH HOOK	galvanised steel	(pcs/sqm)	1,5						

Note for Enigma tile applicaion: Post painted steel Enigma to be used with continental profile.

Pre painted steel Enigma to be used with triangular profile.

Pre and post painted aluminum Enigma to be used with pre painted triangular profile.

MATERIAL WEIGHTS ____

MODEL 600 x 600 mm

		TILES	COMBINED HIDDEN S	TRUCTURES WEIGHT		
MODEL	DIMENSION	MATERIAL	THICKNESS	кg/sqm	SINGLE TRIANG K g/ S	
						S+P
			5/10	1,61	0,81	2,42
		ALUMINUM	6/10	1,94	0,81	2,75
ENIGMA	600 x 600		7/10	2,24	0,81	3,05
		STEEL	5/10	4,61	0,81	5,42
			6/10	5,53	0,81	6,34

THIS TERM REFERS TO THE WEIGHT OF THE STRUCTURE ONLY
THIS TERM REFERS TO THE TOTAL WEIGHT OF THE CEILING STRUCTURE AND TILES

STRUCTURE WEIGHTS DO NOT CONSIDER HANGERS - TILES WEIGHT REFERS TO SMOOTH TILES ONLY

PACKAGING ____

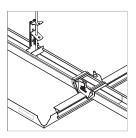
	PACKAGING									
MODEL	DIMENSION	MATERIAL	THICK.	PIECES PER BOX*	BOXES PER PALLET	CODE**				
	600 x 600	ALUMINUM 600 × 600 STEEL	5/10	10	28	PENIRL5BICOOONB				
			6/10	10	28	PENIRL6BICOOONB				
ENIGMA			7/10	10	28	PENIRL7BICOOONB				
			5/10	10	28	PENIRC5BICOOONB				
			6/10	10	28	PENIRC6BICOOONB				

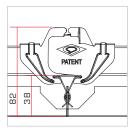
^{* *} The grey part of the code changes according to the tiles specifications

DOUBLE TRIANGULAR STRUCTURE + WINGER _____

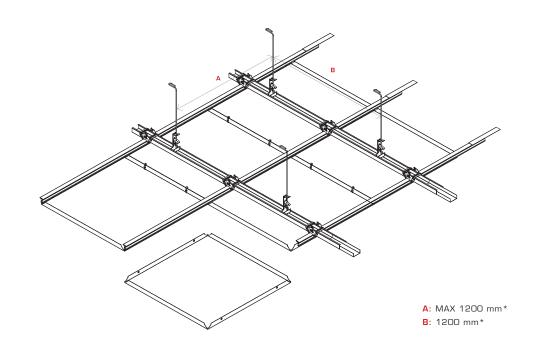
MODEL 600 x 600 mm

DETAILS





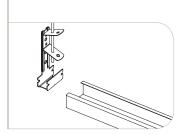




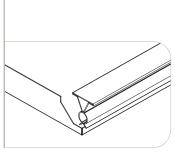
Laying instructions:

- Draw the lines of the perimeter frame.
- Determine the height of the ceiling with a level and mark it with a string.
- Install the perimeter profiles.
- Proceed with the hangers.
- Install structure and tiles as following:

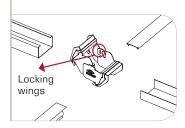




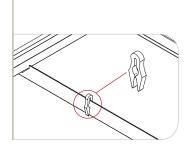
4) Complete the tiles installation pushing them on profile.

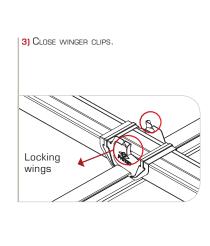


2) PLACE THE WINGER HOOK OVER THE CARRIER AND CLOSE IT WITH THE TRIANGULAR PROFILE.



5) Fix tiles to each other using the PVC CLIPS





MODEL 600 x 600 mm



















	DOUBLE TRIANGULAR STRUCTURE + WINGER										
ID	D DESCRIPTION MATERIAL		QUANTITY								
1	ENIGMA TILE	steel / aluminum	(pcs/sqm)	2,78							
2	TRIANGULAR PROFILE L=4000 mm	galvanised steel 5/10	(lm/sqm)	1,70							
3	TRIANGULAR PROFILE JOINT	galvanised steel 5/10	(pcs/sqm)	0,45							
4	CLIPS	PVC	(pcs/sqm)	4							
5	WINGER HOOK	galvanised steel 8/10	(pcs/sqm)	1,50							
6	49x27 "C" CARRIER L=4000 mm	galvanised steel 6/10	(lm/sqm)	0,85							
7	CARRIER JOINT	galvanised steel 6/10	(pcs/sqm)	0,22							
8	HOOK WITH SPRING	galvanised steel 8/10	(pcs/sqm)	3							
9	Ø4mm HANGER WITH EYE	galvanised steel	(pcs/sqm)	1							

Note for Enigma tile applicaion:

Post painted steel Enigma to be used with continental profile. Pre painted steel Enigma to be used with triangular profile.

Pre and post painted aluminum Enigma to be used with pre painted triangular profile.

MATERIAL WEIGHTS _____

MODEL 600 x 600 mm

		TILES	COMBINED HIDDEN STRUCTURES WEIGHT			
MODEL	DIMENSION	MATERIAL	Local Control of the		STRUCTURE + WINGER	
						S+P
			5/10	1,61	1,26	2,87
		ALUMINUM	6/10	1,94	1,26	3,20
ENIGMA	600 x 600		7/10	2,24	1,26	3,50
		STEEL	5/10	4,61	1,26	5,87
			6/10	5,53	1,26	6,79

THIS TERM REFERS TO THE WEIGHT OF THE STRUCTURE ONLY
THIS TERM REFERS TO THE TOTAL WEIGHT OF THE CEILING STRUCTURE AND TILES S + P

STRUCTURE WEIGHTS DO NOT CONSIDER HANGERS - TILES WEIGHT REFERS TO SMOOTH TILES ONLY

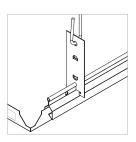
PACKAGING _

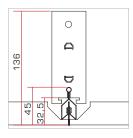
	PACKAGING									
MODEL	DIMENSIONS	MATERIALS	THICK.	PIECES PER BOX*	BOXES PER PALLET	CODE**				
		ALUMINUM	5/10	10	28	PENIRL5BICOOONB				
			6/10	10	28	PENIRL6BICOOONB				
ENIGMA	600 x 600		7/10	10	28	PENIRL7BICOOONB				
		CTEEL	5/10	10	28	PENIRC5BICOOONB				
		STEEL	6/10	10	28	PENIRC6BICOOONB				

^{* *} The grey part of the code changes according to the tiles specifications

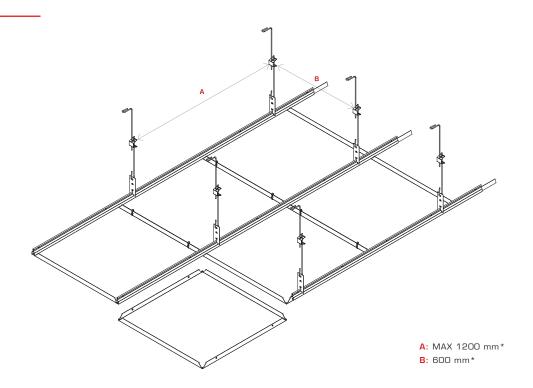
SINGLE CONTINENTAL PROFILE _

DETAILS



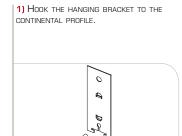


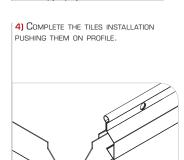




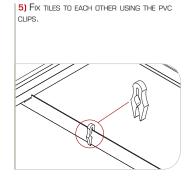
Laying instructions:

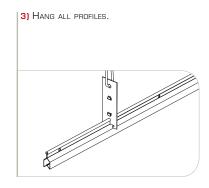
- Draw the lines of the perimeter frame.
- Determine the height of the ceiling with a level and mark it with a string.
- Install the perimeter profiles.
- Proceed with the hangers.
- Install structure and tiles as following:











MODEL 600 x 600 mm

















	SINGLE CONTINENTAL STRUCTURE									
ID	DESCRIPTION	MATERIAL	QUANTITY							
1	ENIGMA TILE	steel / aluminum	(pcs/sqm)	2,78						
2	CONTINENTAL PROFILE L=4000 mm	galvanised steel 6/10	(lm/sqm)	1,70						
3	CONTINENTAL PROFILE JOINT	galvanised steel 5/10	(pcs/sqm)	0,45						
4	FIXING CLIP	galvanised steel 10/10	(pcs/sqm)	1,5						
5	CLIPS	PVC	(pcs/sqm)	4						
6	Ø4 mm DOUBLE SPRING	spring steel	(pcs/sqm)	1,5						
7	Ø4 mm HANGER WITH EYE	galvanised steel	(pcs/sqm)	1,5						
8	Ø4 mm HANGER WITH HOOK	galvanised steel	(pcs/sqm)	1,5						

Note for Enigma tile applicaion: Post painted steel Enigma to be used with continental profile.

Pre painted steel Enigma to be used with triangular profile.

Pre and post painted aluminum Enigma to be used with pre painted triangular profile.

MATERIAL WEIGHTS ____

MODEL 600 x 600 mm

		TILES	COMBINED HIDDEN S	TRUCTURES WEIGHT		
MODEL	DIMENSION	MATERIAL	THICKNESS	кg/sqm	SINGLE CONTINEN Kg/s	
						S+P
		600 x 600 STEEL	5/10	1,61	1,01	2,62
			6/10	1,94	1,01	2,95
ENIGMA	600 x 600		7/10	2,24	1,01	3,25
			5/10	4,61	1,01	5,62
			6/10	5,53	1,01	6,54

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THIS TERM REFERS TO THE TOTAL WEIGHT OF THE CEILING STRUCTURE AND TILES

STRUCTURE WEIGHTS DO NOT CONSIDER HANGERS - TILES WEIGHT REFERS TO SMOOTH TILES ONLY

PACKAGING __

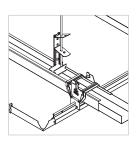
	PACKAGING									
MODEL	DIMENSION	MATERIAL	THICK.	PIECES PER BOX*	BOXES PER PALLET	CODE**				
	600 x 600	ALUMINUM 600 × 600 STEEL	5/10	10	28	PENIRL5BICOOONB				
			6/10	10	28	PENIRL6BICOOONB				
ENIGMA			7/10	10	28	PENIRL7BICOOONB				
			5/10	10	28	PENIRC5BICOOONB				
			6/10	10	28	PENIRC6BICOOONB				

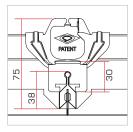
^{* *} The grey part of the code changes according to the tiles specifications

DOUBLE CONTINENTAL STRUCTURE + WINGER _____

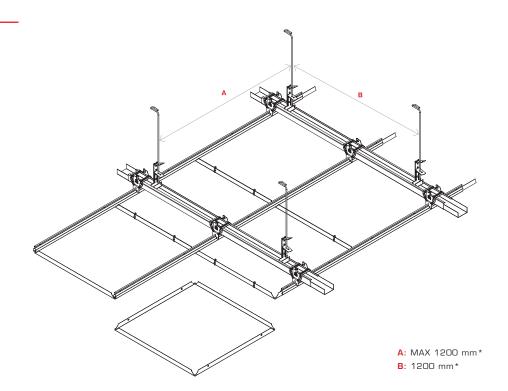
MODEL 600 x 600 mm

DETAILS



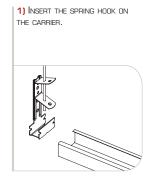


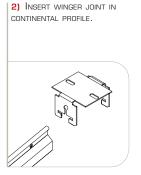




Laying instructions:

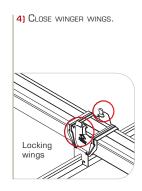
- Draw the lines of the perimeter frame.
- Determine the height of the ceiling with a level and mark it with a string
- Install the perimeter profiles.
- Proceed with the hangers.
- Install structure and tiles as following:





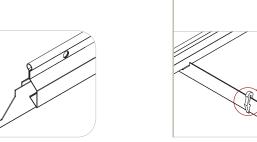
6) FIX TILES EACH OTHER USING THE PVC







5) COMPLETE THE TILES INSTALLATION



^{*} Verify the interaxe according to the load at m² and particular conditions

MODEL 600 x 600 mm





















	DOUBLE CONTINENTAL STRUCTURE + WINGER										
ID	DESCRIPTION	MATERIAL QUAN		ΊΤΥ							
1	ENIGMA TILE	steel / aluminum	(pcs/sqm)	2,78							
2	CONTINENTAL PROFILE L=4000 mm	galvanised steel 6/10	(lm/sqm)	1,70							
3	CONTINENTAL PROFILE JOINT	galvanised steel 5/10	(pcs/sqm)	0,45							
4	CLIPS	PVC	(pcs/sqm)	4							
5	WINGER HOOK	galvanised steel 8/10	(pcs/sqm)	1,50							
6	WINGER JOINT	galvanised steel 10/10	(pcs/sqm)	1,50							
7	49x27 "C" CARRIER L=4000 mm	galvanised steel 6/10	(lm/sqm)	0,85							
8	CARRIER JOINT	galvanised steel 6/10	(pcs/sqm)	0,22							
9	HOOK WITH SPRING	galvanised steel 8/10	(pcs/sqm)	1							
10	Ø4 mm HANGER WITH EYE	galvanised steel	(pcs/sqm)	1							

Note for Enigma tile applicaion:

Post painted steel Enigma to be used with continental profile.

Pre painted steel Enigma to be used with triangular profile.

Pre and post painted aluminum Enigma to be used with pre painted triangular profile.

MATERIAL WEIGHTS __

MODEL 600 x 600 mm

		TILES	COMBINED HIDDEN S	TRUCTURES WEIGHT		
MODEL	DIMENSIONS	MATERIALS	THICKNESS Kg/sqm DOUBLE CONTINENTAL			
						S+P
		ALUMINUM	5/10	1,61	1,11	2,72
			6/10	1,94	1,11	3,05
ENIGMA	600 x 600		7/10	2,24	1,11	3,34
		STEEL	5/10	4,61	1,11	5,72
			6/10	5,53	1,11	6,64

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THIS TERM REFERS TO THE TOTAL WEIGHT OF THE CEILING STRUCTURE AND TILES

STRUCTURE WEIGHTS DO NOT CONSIDER HANGERS - TILES WEIGHT REFERS TO SMOOTH TILES ONLY

PACKAGING _

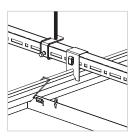
PACKAGING							
MODEL	DIMENSION	MATERIAL	THICK.	PIECES PER BOX*	BOXES PER PALLET	CODE**	
ENIGMA	600 x 600	ALUMINUM	5/10	10	28	PENIRL5BICOOONB	
			6/10	10	28	PENIRL6BICOOONB	
			7/10	10	28	PENIRL7BICOOONB	
		STEEL	5/10	10	28	PENIRC5BICOOONB	
			6/10	10	28	PENIRC6BICOOONB	

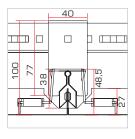
^{* *} The grey part of the code changes according to the tiles specifications

DOUBLE CONTINENTAL STRUCTURE WITH "U" PROFILE_____

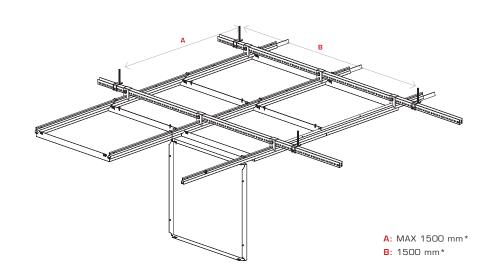
MODEL 600 x 600 mm

DETAILS





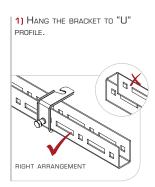




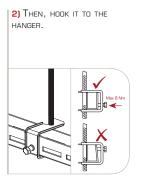
Laying instructions:

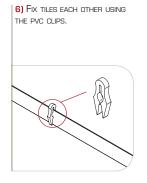
- Draw the lines of the perimeter frame.
- Determine the height of the ceiling with a level and mark it with a string.
- Install the perimeter profiles.

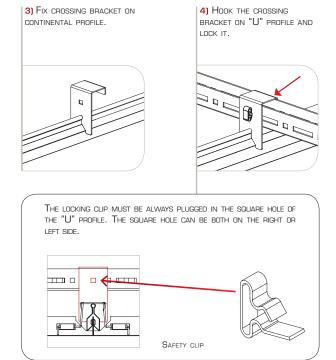
- Prepare the hanger grid fixing the threaded bar to the loft.
- Install structure and tiles as following:











MODEL 600 x 600 mm





















	DOUBLE CONTINENTAL STRUCTURE WITH "U" PROFILE							
ID	DESCRIPTION	MATERIAL	QUANTITY					
1	ENIGMA TILE	steel / aluminum	(pcs/sqm)	2,78				
2	CONTINENTAL PROFILE L=4000 mm	galvanised steel 6/10	(lm/sqm)	1,70				
3	CONTINENTAL PROFILE JOINT	galvanised steel 5/10	(pcs/sqm)	0,45				
4	DOUBLE CONTINENTAL SYSTEM BRACKET	galvanised steel 10/10	(pcs/sqm)	1,15				
5	CLIPS	PVC	(pcs/sqm)	4				
6	30x20x30 "U" PR0FILE L=4050 mm	galvanised steel 15/10	(lm/sqm)	0,70				
7	"U" PROFILE JOINT	galvanised steel	(pcs/sqm)	0,20				
8	Ø6 mm THREADED BAR BRACKET	hardened steel	(pcs/sqm)	0,60				
9	SAFETY CLIP	spring steel	(pcs/sqm)	1,15				
10	Ø6 mm THREADED BAR	galvanised steel	(pcs/sqm)	0,60				

Note for Enigma tile applicaion:

Post painted steel Enigma to be used with continental profile. Pre painted steel Enigma to be used with triangular profile.

Pre and post painted aluminum Enigma to be used with pre painted triangular profile.

MATERIAL WEIGHT _____

MODEL 600 x 600 mm

TILES					COMBINED HIDDEN STRUCTURES WEIGHT		
MODEL	DIMENSION	MATERIAL	MATERIAL THICKNESS		DOUBLE CONTINENTAL STRUCTURE WITH "U" PROFILE Kg/sqm		
						S+P	
ENIGMA	600 x 600	ALUMINUM	5/10	1,61	1,59	3,20	
			6/10	1,94	1,59	3,53	
			7/10	2,24	1,59	3,83	
		STEEL	5/10	4,61	1,59	6,20	
			6/10	5,53	1,59	7,12	

THIS TERM REFERS TO THE WEIGHT OF THE STRUCTURE ONLY

S + P THIS TERM REFERS TO THE TOTAL WEIGHT OF THE CEILING STRUCTURE AND TILES
STRUCTURE WEIGHTS DO NOT CONSIDER HANGERS - TILES WEIGHT REFERS TO SMOOTH TILES ONLY

PACKAGING ____

PACKAGING							
MODEL	DIMENSION	MATERIAL	THICK.	PIECES PER BOX*	BOXES PER PALLET	CODE**	
ENIGMA	600 x 600	ALUMINUM	5/10	10	28	PENIRL5BICOOONB	
			6/10	10	28	PENIRL6BICOOONB	
			7/10	10	28	PENIRL7BICOOONB	
		STEEL	5/10	10	28	PENIRC5BICOOONB	
			6/10	10	28	PENIRC6BICOOONB	

^{* *} The grey part of the code changes according to the tiles specifications

TECHNICAL SPECIFICATION _

MATERIAL AND COLOR:

Aluminum 5/10 White | Silver | Gloss AISI

Aluminum 6/10 White | SilverSteel 5/10 - 6/10 White | Silver

Postpainted similar to RAL 9010 and RAL 7035 (gloss and matt)

Postpainted all RAL color gloss and semi-gloss

SILVER postpainted similar to RAL 9006 and all matt RAL colors.

See "Colors and Materials" data sheet

FINISHING:

Plain surface

Perforated surface:

- Perforation type
- Hole
- Diagonal or parallel perforation
- % perforated area

Read Atena Perforations data sheet

HIDDEN STRUCTURE:

- Single triangular structure
- Double triangular structure + Winger
- Single continental structure
- Double continental structure + Winger
- Double continental structure + "U" profile

PERIMETER PROFILES:

Chosen by project requirements, see Metal Modular Catalogue, "Perimeter profiles" section.

Fire reaction according to UNI EN 13964 A1 Class for plain or perforated tiles with Viledon Plus, A2s1dO Class for perforated tiles with standard Viledon.

The panels will be removable to ensure any easy access to the interspace and a flexible positioning of the lighting elements.

In case the perimeter frame is made up of cutted tiles, we recommend the use of plain tiles.

Good results in terms of sound-absorbency can be obtained with perforated tiles by inserting rockwool or mineral fiber on the back, packed in hot-sealed polyethylene containers.

STORAGE MODE _____

In order to guarantee to customers the realization of a perfect false ceiling, materials supplied by Atena S.p.A. shall be maintained in good conditions from purhcase to installation.

They must be stored in a closed, clean and dry site.

Atena S.p.A. protects its products with resistant packaging under normal handling.

Please handle packages with care to avoid shocks and inappropriate handling that might damage what is provided.

Tiles are packaged in brown cardboard boxes with stripe and delivered on pallets secured with cellophane.

The manual handling must be carried out with caution and in compliance with safety regulations at work.

For carriage of packaged products on pallets, provide a mechanical transport to avoid damages or risks resulting from inadequate transport.

CLEANING, MAINTENANCE AND REMOVAL_

Cleaning and maintenance require some attention and care even though are easy to make and don't take much time. It is necessary to use neutral and not aggressive soaps. In case of any damage, tiles can be repainted or replaced.

False ceilings maintenance usually refers to:

placing, alignment or replacement of damaged or broken tiles. Panels can be also removed for restoration or maintenence of the system below.

The maintenance work shall be appointed to: specialised workers trained with technical data sheets about setting, removal and maintenance of the false ceilings, in order to ensure excellent results.

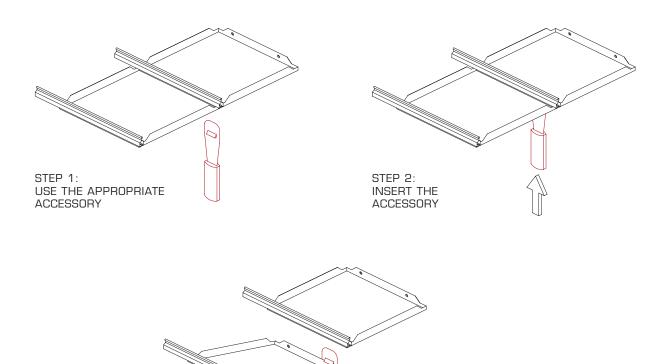
The tiles shall be taken off with the use of a specific tool supplied by Atena S.p.A. which allows the tiles removal without damaging the structure. (see picture below).

Using inadequate tools can damage the structure, causing adherence loss or even accidental panel fall.

All the maintenance intervention must follow the technical data sheet indication and every noted diversity has to be promptly reported.

Each worker assigned with maintenance operation must carefully remove the tile, perform the intervention and do not alter the false ceiling structure, the hanging system and the connection between these elements.

When the maintenance is over, install again the panels, verifying that the tiles are properly hooked on the profiles and the planarity is guaranteed. Any difference in tiles level is caused by wrong installation and, for this reason, they must be quickly controlled.



STEP 3:

UNLOCK THE TILE

LAWS REFERENCE AND WARRANTY_

Each Atena false ceiling is produced for internal use according to the technical rules for construction NTC 2008, and the specific regulations UNI EN 13964, 14195:2005.

Each Atena S.p.A. product has its own DOP (Declaration Of Performance) CE according to the European Law 305/2011.

False ceilings and claddings for internal and external use have to be dimensioned on environment features, to list some of the possible examples: earthquakes, wind, thermal expansion, place of installation, use destination of the building and project requests.

Indipendently by information, suggestions, advices and technical opinions exchanged between the parts, Atena S.p.A. will produce its products only according to the orders received and the technical drawings/projects attached, having no responsibility on what is not indicated in the order, in the technical drawings or in the project.

Atena S.p.A., as producer, is responsible for manufacturing defects. Complaints have to be presented according to the selling conditions. Materials used for Atena false ceilings have been produced just with this purpose, every other use is considered improper.