



ATENA S.P.A. HAS A QUALITY
MANAGEMENT SYSTEM
CERTIFICATED BY RINA
IN COMPLIANCE WITH ISO 9001



Atena H+

24 Syncro Evo | ISO 2

Patent number: 102016000006819



Integrated system for clean rooms:
ISO 2 Class - Tested for air cleanliness by the Fraunhofer Institute IPA in Stuttgart according to the UNI EN ISO 14644-1 standard.
Tested for air permeability according to test method of UNI EN 1026 standard.

PANELS FEATURES AND DIMENSIONS
600x600 | 600x1200 | 300x600 | 300x1200 mm
other dimensions on request | Right edge
Shaped edges to apply air tight gasket and corners spring model

PANELS MATERIAL
Steel 5/10 | 6/10 - Aluminum 8/10

HIDDEN STRUCTURE
Steel Strong Easy T24 | Easy Antiseismic T24

ANTI-SEISMIC EQUIPMENTS
Atena Antiseismic Kit for ≤ 1,2 m plenum
Atena Antiseismic Kit for > 1,2 m high plenum

HANGERS
Twister, Nonius, Standard with spring, 90° hanger

COLORS
Atena white/silver pre-painted aluminum/steel
RAL / NCS coatings

FINISHING
Plain or perforated surface | Sublimation of images and effects
Antimicrobial treatment (**Defence H+**)

WALL ANGLES
"L" Syncro Evo with air tight gasket to apply on site

ACCESSORIES
Atena Lux | TAURUS EVO IP65 integrated lighting body

PANELS MATERIAL | M² METAL CEILING WEIGHT

PANEL MATERIAL	PANELS* Kg/m ²	STRUCTURE* Kg/m ²	LAMP WEIGHT * Kg/m ²
Steel 5/10	5,00	1,05	10
Steel 6/10	6,00	1,05	10
Aluminum 8/10	2,80	1,05	10

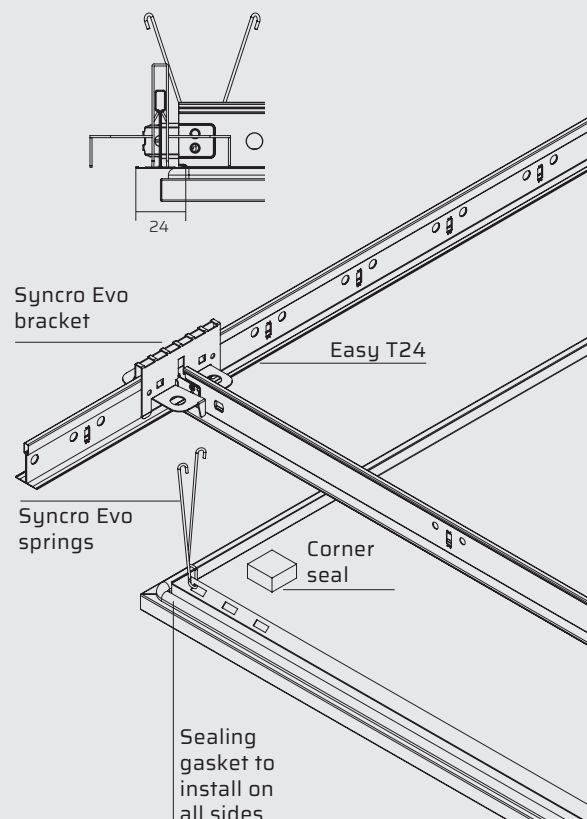
* Panel weight including hooking springs, corner seal and sealing gasket.
Structure weight including Syncro bracket, hangers and wall angles not included.



















SECTIONS

Metal ceiling made up of SYNCRO EVO panels with T24 structure.

Right edge









TECHNICAL PERFORMANCES

	FLEXION RESISTANCE	Maximum span 1200 mm - 1 Class EN13964		FIRE REACTION	Classe A1 UNI EN 13501-1
	METAL CEILING MAXIMUM LOAD ⁽²⁾	12 kg/sqm		LIGHT REFLECTION	Smooth glossy white: up to 85% ISO 7724-2 (3)
	DURABILITÀ VERNICIATI	Classe C EN13964		GALVANIZED ITEM DURABILITY	B Class EN13964
	ACOUSTICS	Information in "Acoustic Performance"		COLOR STABILITY	In compliance with technical tolerances standard. Test according the ΔE - CIELab method. ISO 7724-2 (3)
	CORROSION RESISTANCE	Galvanized steel products: C2 Class Pre-painted galvanized steel products: C3 Class Post-painted galvanized steel products: C4 Class Pre/post-painted aluminum products: C5 Class			
	(RH%) RELATIVE HUMIDITY RESISTANCE	Galvanized steel products: ≤ 90% Pre/post-painted galvanized steel products: > 90% Stainless steel and aluminium products: > 90%			
	AIR CLEANLINESS CLASS	ISO 2 ISO 14644-1 - Fraunhofer institute - Stuttgart			
	AIR TIGHTNESS	Test carried out according UNI EN 1026 standard Istituto Giordano.			
	CLEANING ⁽¹⁾	Wet cloth with warm water and neutral non-abrasive detergents. High pressure water			
	DISINFECTION IDONEITY ⁽³⁾	"Defence 4H*" galvanised post-painted steel products only. VDI2083 P.17; ISO 4628-1; ISO2812-1 - Fraunhofer institute - Stuttgart			
	ANTIMICROBIAL PROPERTIES ⁽⁴⁾	Products "Defence 1H*" in galv. pre-painted steel : action > 99% Products "Defence 2H*" in pre-painted aluminum: action >99% ISO 22196 JIS Z 2801-2010 Products "Defence 3H* 4H*" in alu. / galv. st. post-paint.: action >99%			
	RESISTANCE TO MOLD ⁽⁵⁾	Products "Defence H*" are resistant to mold thanks to their chemical-physical properties.			

(1): Clean the metal ceiling by dry-cleaning before proceeding with water; the false ceiling can be washed with high pressure water if sealed with silicone.
(2): Value calculated with Easy T24 and Easy Antiseismic T24 structures. (3): Frequent cleaning with diluted disinfectants containing active agents such as formalin, hydrogen peroxide, sulfuric acid, phosphoric acid, hydrochloric acid, isopropanol, sodium hydroxide and sodium hypochlorite. (4): Information on the tested bacterial spectrum available on request. (5): pre-painted and post-painted steel and aluminum products are resistant to mold thanks to their chemical-physical properties. Products maintain the declared performance properties if properly cleaned and maintained.

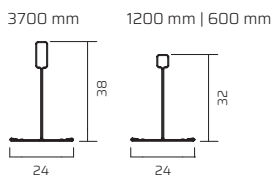
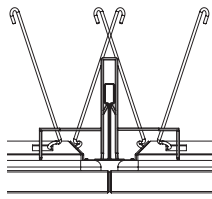
SUSTAINABILITY

	RELEASE OF DANGEROUS SUBSTANCES*	None CAM 2.4.1.3 EN13964		FORMALDEHYDE*	E1 Class CAM 2.3.5.5
	DISASSEMBLY*	Steel Aluminium 100% recyclable CAM 2.4.1.1		MATERIAL DEMOLITION AND REMOVAL*	Non hazardous waste in compliance with CAM 2.5.1.
	RECYCLED PRODUCT CONTENT*	CAM 2.4.1.8 compliance		GREEN BUILDING	Requirements: LEED (BREEAM and ITACA for cross-section aspects)

* Data declaration as required by the ISO 14021 standard

All dimensions are nominal and expressed in millimeters.
All technical specification data and information can be changed without advise.
For further information please contact sales department:
tel. + 39 0421 75526 export@atena-it.com

BASE 24 STRUCTURE SYSTEM



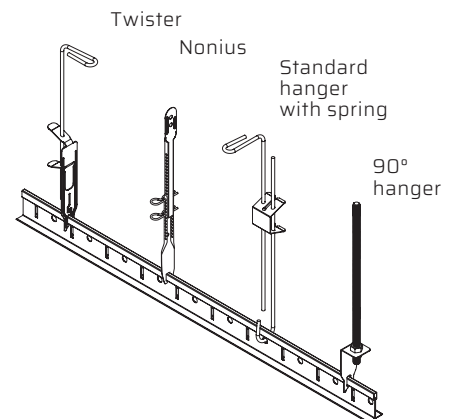
*Verify the interaxe according to the load at m² and particular conditions.

COMPONENT INCIDENCES

ID	DESCRIPTION	INCIDENCE*
1	SYNCR0 EVO PANEL	2,78 pz/mq
2	"L SYNCR0 EVO" WALL ANGLE	1 pz/mq
3	HANGERS	1 pz/mq
4	EASY T24 3700 (h38)	0,85 ml/mq
5	EASY T24 1200 (h32 h38)	1,70 ml/mq
6	EASY T24 600 (h32 h38)	0,85 ml/mq
7	T24 SYNCR0 BRACKET	-
8	TAURUS EVO IP65 LIGHTING BODY	-

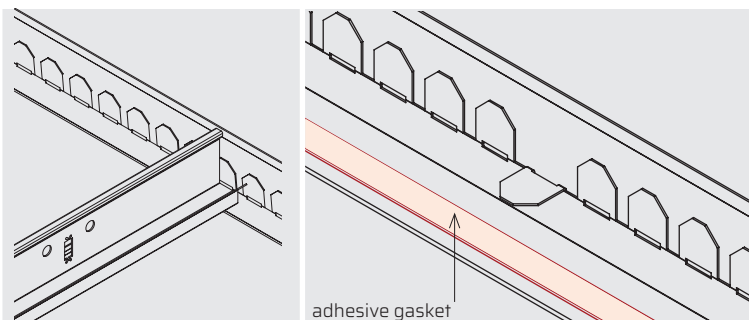
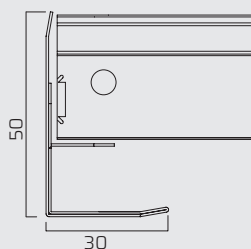
* Component incidences 600x600mm model

HANGERS



WALL ANGLE

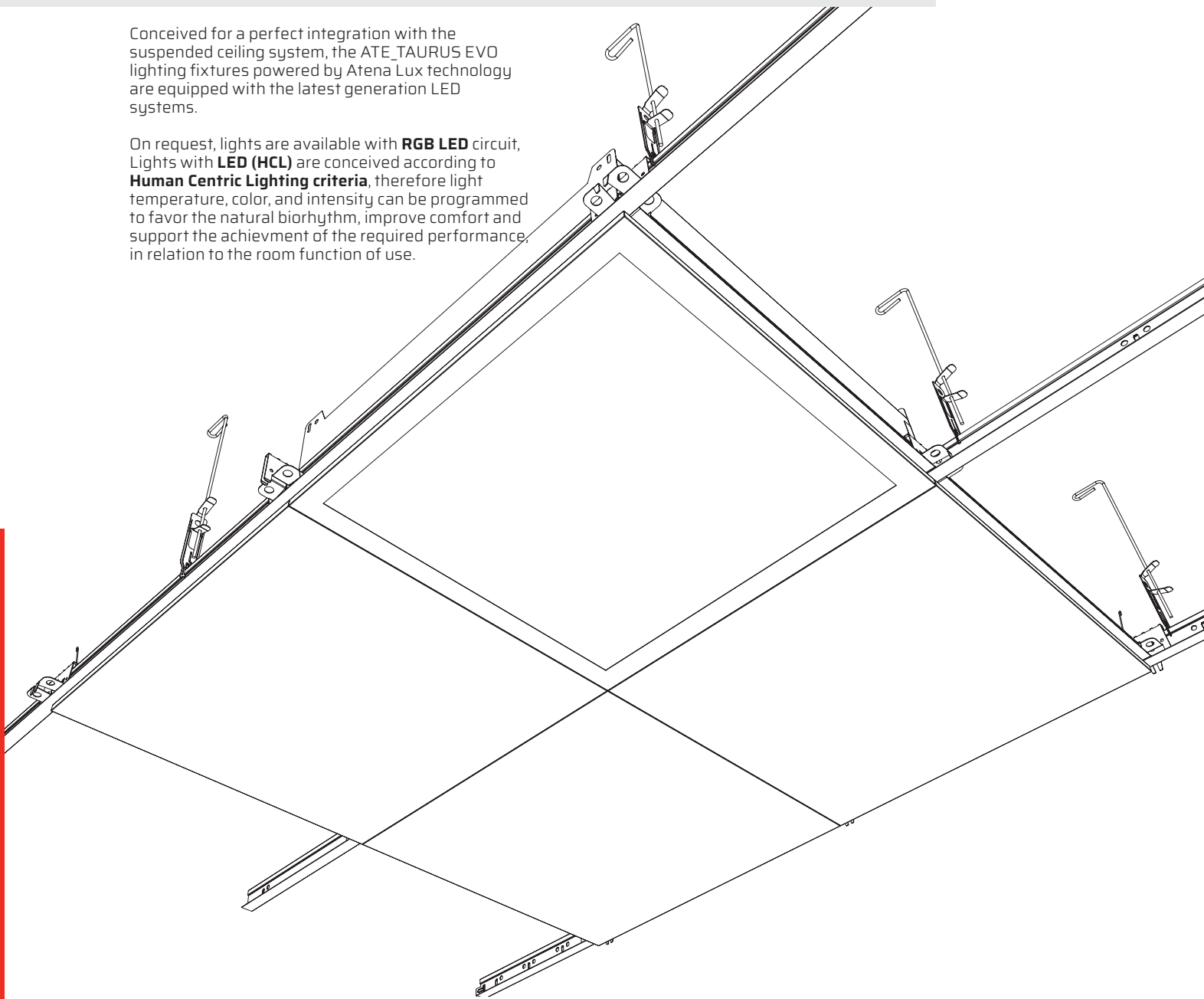
SYNCR0 EVO
 Nearby T profile, wall angles must be bended at 90 degrees to allow profiles laying.



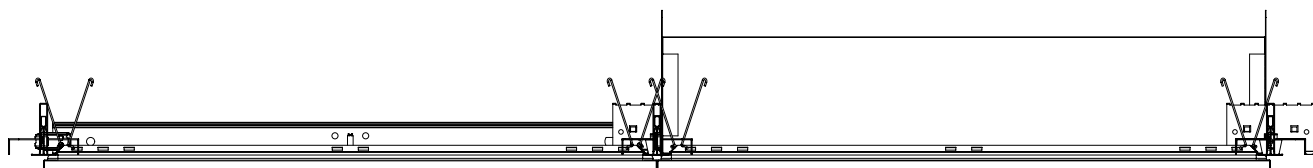
TAURUS EVO IP65 INTEGRATED LIGHTING BODY

Conceived for a perfect integration with the suspended ceiling system, the ATE_TAURUS EVO lighting fixtures powered by Atena Lux technology are equipped with the latest generation LED systems.

On request, lights are available with **RGB LED** circuit, Lights with **LED (HCL)** are conceived according to **Human Centric Lighting criteria**, therefore light temperature, color, and intensity can be programmed to favor the natural biorhythm, improve comfort and support the achievement of the required performance, in relation to the room function of use.



SYSTEM SECTION



ATE_TAUROS EVO | by Atena Lux

MODULE DIMENSION

600x600 mm

MATERIALS

Visible part made of the same material and finishing of the ceiling.

Lighting body made in steel, matt RAL 9003 white caotaed with thermosetting epoxy powders at 180°, after degreasing, phosphating and washing treatment.

OPTICAL GROUP

MOT optic with high transmittance opal methacrylate diffuser. Optics resistant to glow-wire test at 650°C according to CEI EN 60695-2-11 standards.

PMO optic with microprismatic polycarbonate diffuser, protected from UV rays for better resistance to atmospheric agents. Optic with controlled light emission with luminance values < 3000 cd/m² for emission angles greater than 65° on all planes (UGR<19) and therefore suitable for installation in environments with the use of video terminals according to UNI EN 12464- 1. Glow-wire test 850°C.

PROTECTION CLASS

Total IP 65

LIGHT SOURCE

High efficiency LEDs arranged on rigid modules, color rendering **CRI>80** and **CRI>90**, color temperature **4000K** (3000K and 5000K available on request), selected 3 MacAdam ellipses LED diode to ensure color uniformity.

WHITE + RGB and **LED TUNABLE WHITE 2700-6500K** (HCL) models available on request.

Sources duration under normal conditions: more than **50.000h L80/F10** at **Ta=25°C**.

WIRING

Power supply 220-240V 50-60Hz.

LED wiring with rigid cable, sect. 0.50 mm² and PVC-HT sheath resistant to 90°C according to CEI 20-20. Terminal block with maximum permissible cable cross-section of 2.5 mm².

I Insulation class. Suitable for installation on normally flammable surfaces.

- **LED-F** model with (ON/OFF) fixed output electronic driver and protection fuse included.
- Dimmable **LED-F DALI**, with dimmable electronic driver and protection fuse included.
- Models with **Emergency Kit** 1/3h autonomy.

ACCESSORIES AND HANGERS

Suspending brackets to lay the lighting body in the structure included. Hooking brackets and harmonic steel springs for lighting diffuser installation, included. Suspension cables on request. Lighting and accessories must be independently suspended.

All dimensions are nominal and expressed in millimeters.
All technical specification data and information can be changed without advise.
For further information please contact sales department:
tel. + 39 0421 75526 export@atena-it.com

Direct light emission **ATE_TAUROS EVO LED** fixture, suitable for installation with **ATENA "24 SYNCRO EVO"** modular panels with hidden structure and air tight gasket. Total protection system against dust and water jets, suitable for installation in chemical laboratories, hospital rooms, wards, operating theaters and all environments where particular aseptic conditions are required.



SOURCE CHARACTERISTICS

W	CCT	IRC	MOT		PMO		IP
			F.E. [lm]*	EFF [lm/W]	F.E. [lm]*	EFF [lm/W]	
38	4000K	>80	4218	111	4446	117	65
38	4000K	>90	3382	89	3572	94	65
44	4000K	>80	4884	111	5148	117	65
44	4000K	>90	3916	89	4136	94	65
50	4000K	>80	5550	111	5850	117	65
50	4000K	>90	4450	89	4700	94	65
78	4000K	>80	10218	124	10218	131	65
78	4000K	>90	7722	99	8190	105	65

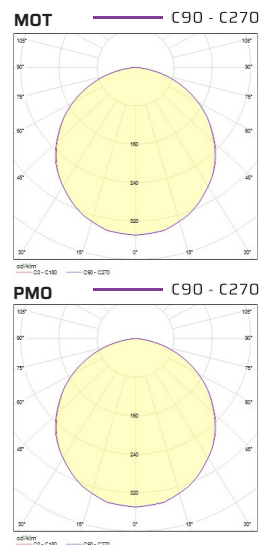
* The actual flow may have a tolerance of ±10%.

Caption:

CCT= Color temperature
CRI= Color rendering index
IP= Protection Class
F.E.= Actual flow
EFF= Efficiency

Datasheet: sources features
CCT= 3000 and 5000 on request
Module: 600x600

PHOTOMETRIC CURVES

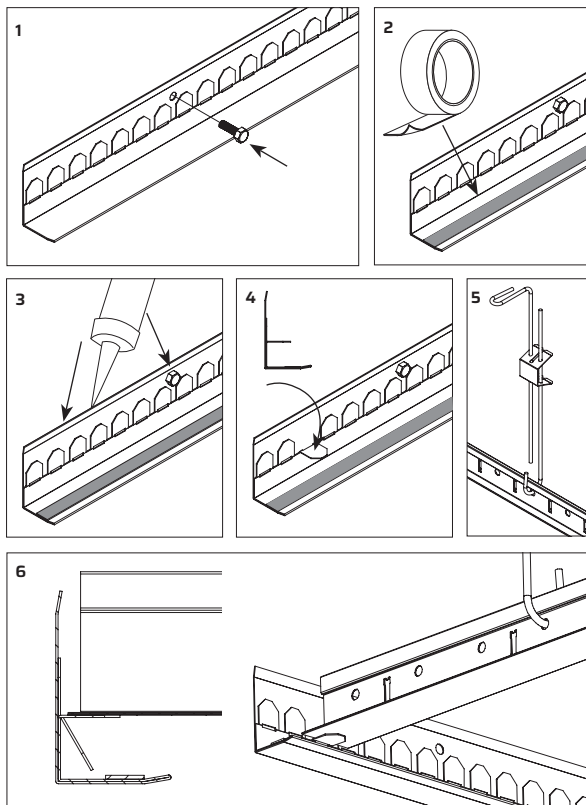
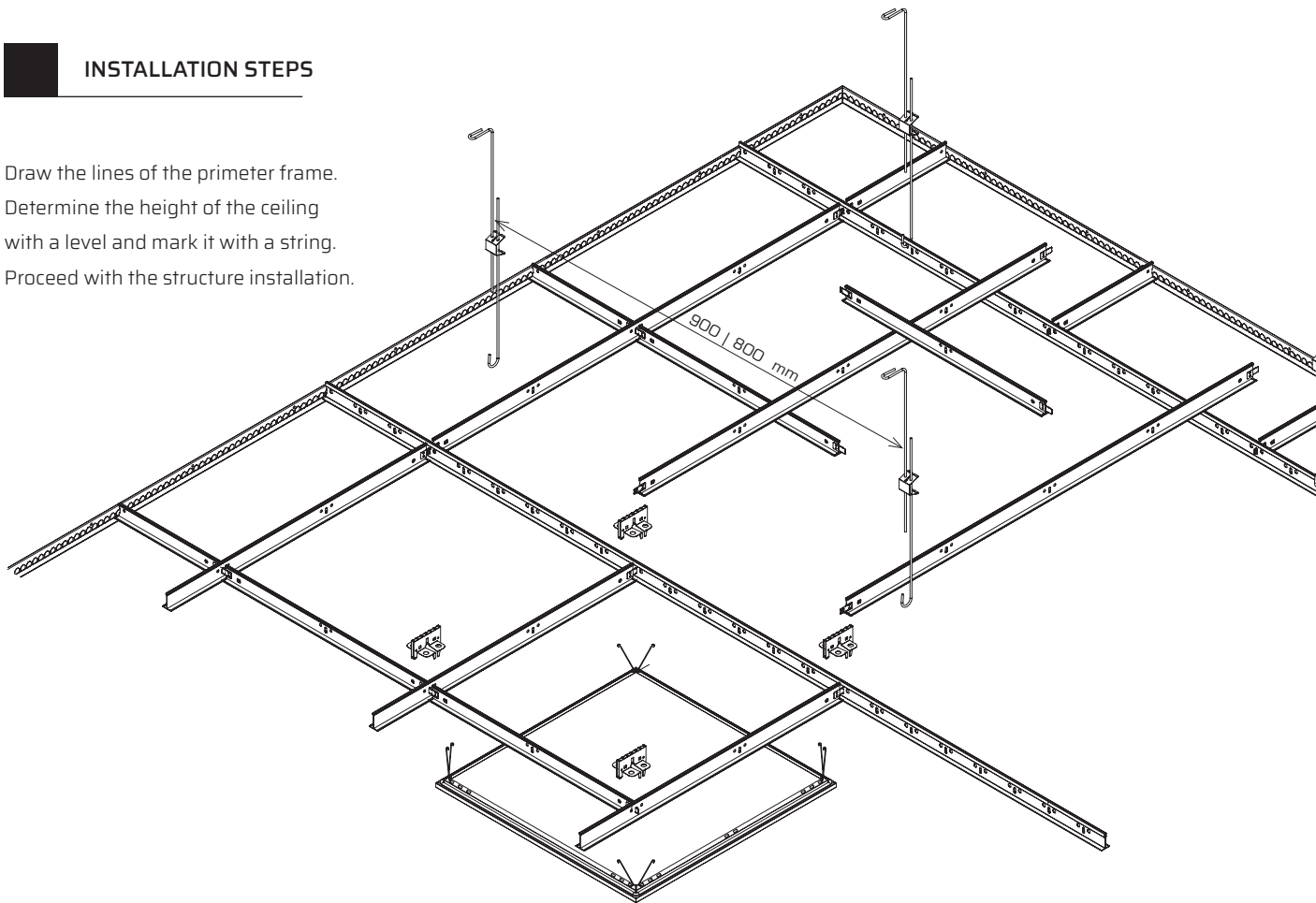


STANDARD COMPLIANCE

EN 61547	IEC/TR 62471-2	EN 60598-2-13
EN 55015	EN 60061-1	EN 62471*
EN 61000-3-2	EN 62031	EN 62560
EN 61000-3-3	EN 62493	EN 60968
EN 60529	EN 60598-1	*(risk class 0)

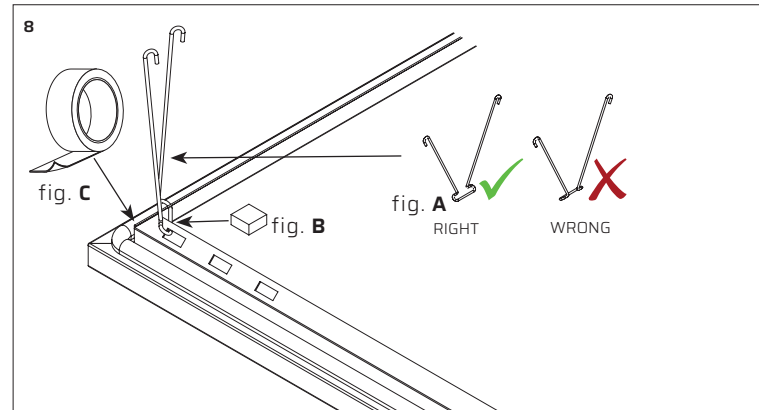
INSTALLATION STEPS

Draw the lines of the perimeter frame.
Determine the height of the ceiling
with a level and mark it with a string.
Proceed with the structure installation.



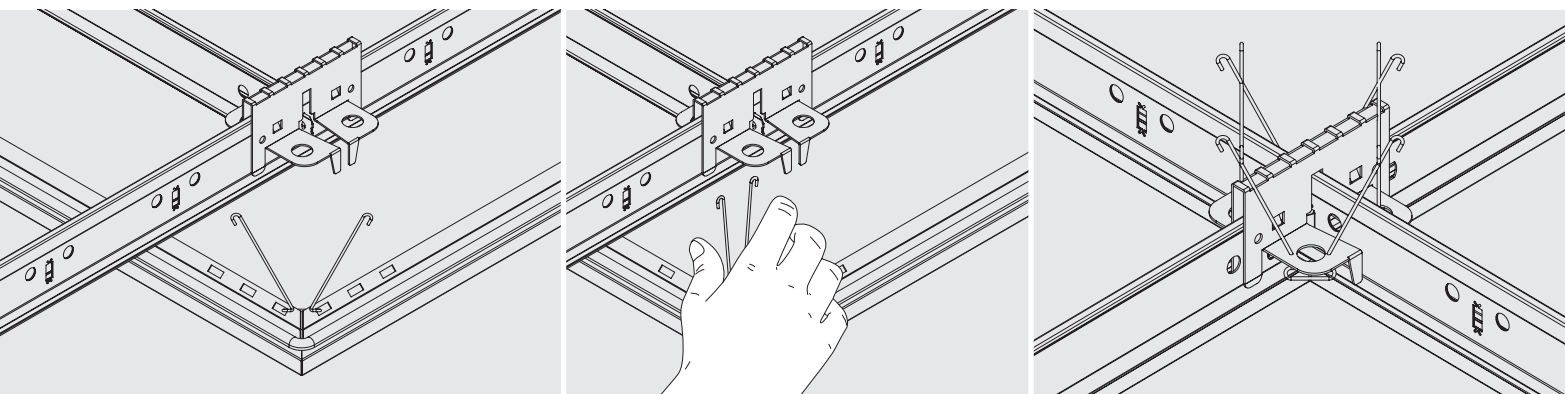
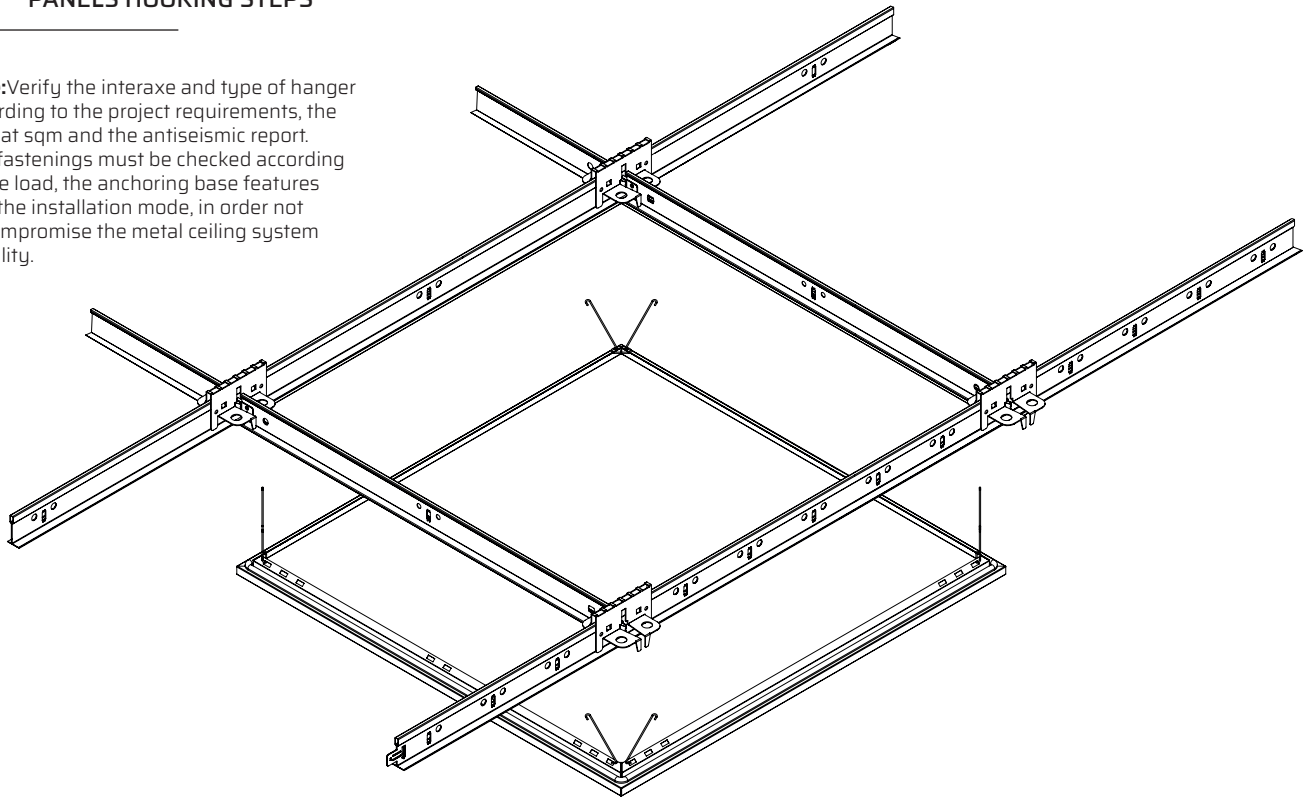
1. Install the wall angles with nails, screws and / or plugs suitable to the wall material.
2. Apply the **sealing gasket** on wall angle.
3. Use **non acetic silicone** to seal the top of wall angle and all fixing screw holes.
4. Bend the **wall angle wings at 90 degrees nearby T profiles**: to install 600x600 mm panels, bend the wings with an interaxe of 600 mm.
5. Fix the **hangers** according to the type of ceiling to be installed, verify the interaxe according to the load at m² and particular conditions.
6. Install the **T24 3700 mm main runners with an interaxe of 1200 mm with hangers every 900 | 800 mm or according to project requirements**.
Pay attention, T-grid must lay in the perimeter wings previously bent.
7. Insert **1200 mm cross T** in main runners and insert **600 mm cross T** in 1200 mm cross profiles.

8. **Prepare the panels** by applying the springs (fig. A), the sealing corners (fig. B) and the neoprene gasket on all sides (fig. C)
9. Insert **T24 Syncro brackets** at the crossings.
10. Proceed with the **panels installation** keeping free the last series before the wall angles.
11. Hook the panels on **T24 Syncro brackets** through the special springs.

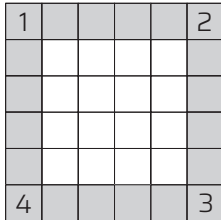


PANELS HOOKING STEPS

Note: Verify the interaxe and type of hanger according to the project requirements, the load at sqm and the antiseismic report. The fastenings must be checked according to the load, the anchoring base features and the installation mode, in order not to compromise the metal ceiling system stability.



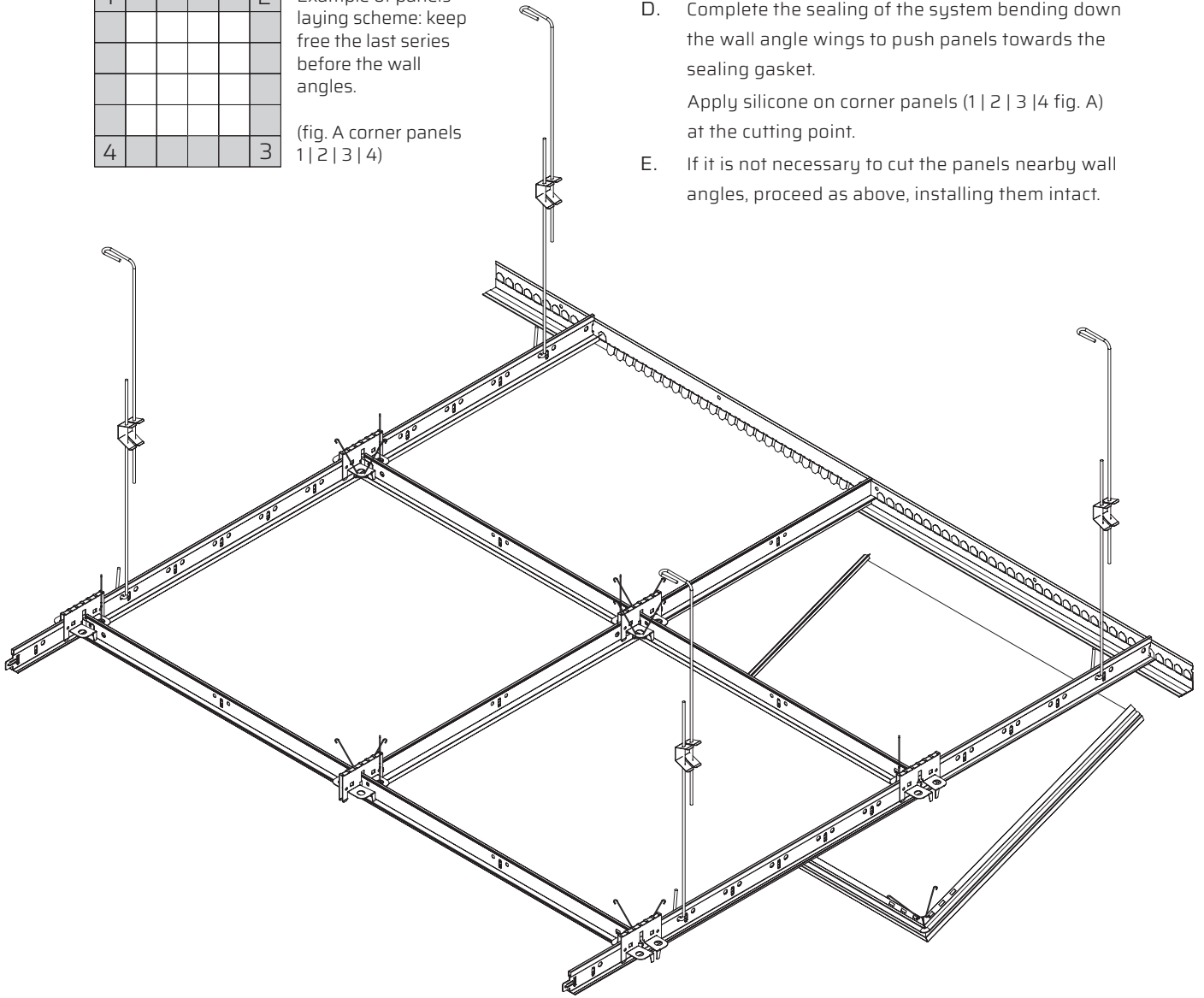
PANELS INSTALLATION NEARBY WALL ANGLES



Example of panels laying scheme: keep free the last series before the wall angles.

(fig. A corner panels 1 | 2 | 3 | 4)

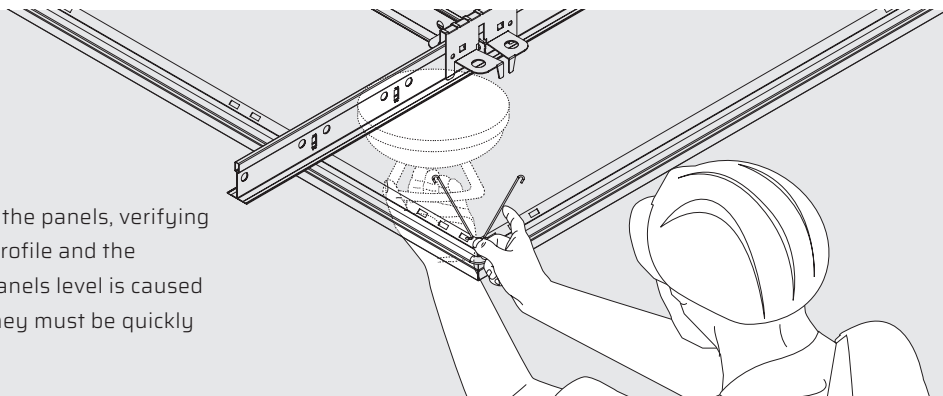
- A. Cut the panels according to the necessary measurement.
- B. Tilt panels to position them under the T structure.
- C. Hook the springs.
- D. Complete the sealing of the system bending down the wall angle wings to push panels towards the sealing gasket.
Apply silicone on corner panels (1 | 2 | 3 | 4 fig. A) at the cutting point.
- E. If it is not necessary to cut the panels nearby wall angles, proceed as above, installing them intact.



REMOVAL

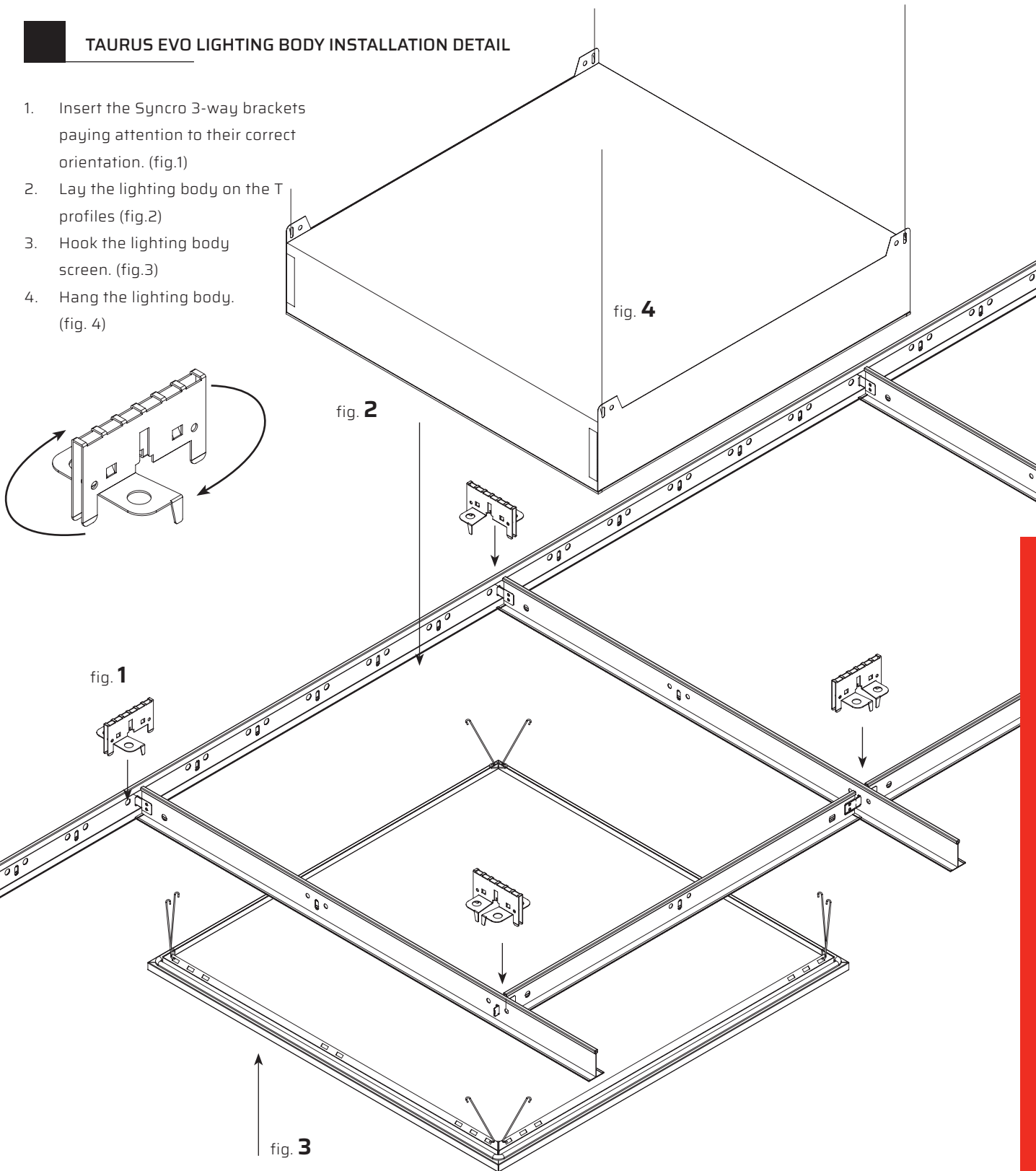
Use the suction cups to loosen the panel.
Tighten the spring and release it.

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



TAURUS EVO LIGHTING BODY INSTALLATION DETAIL

1. Insert the Syncro 3-way brackets paying attention to their correct orientation. (fig.1)
2. Lay the lighting body on the T profiles (fig.2)
3. Hook the lighting body screen. (fig.3)
4. Hang the lighting body. (fig. 4)



Note: Lighting bodies, accessories and systems must not weigh on the metal ceiling system, but must be independently hung.

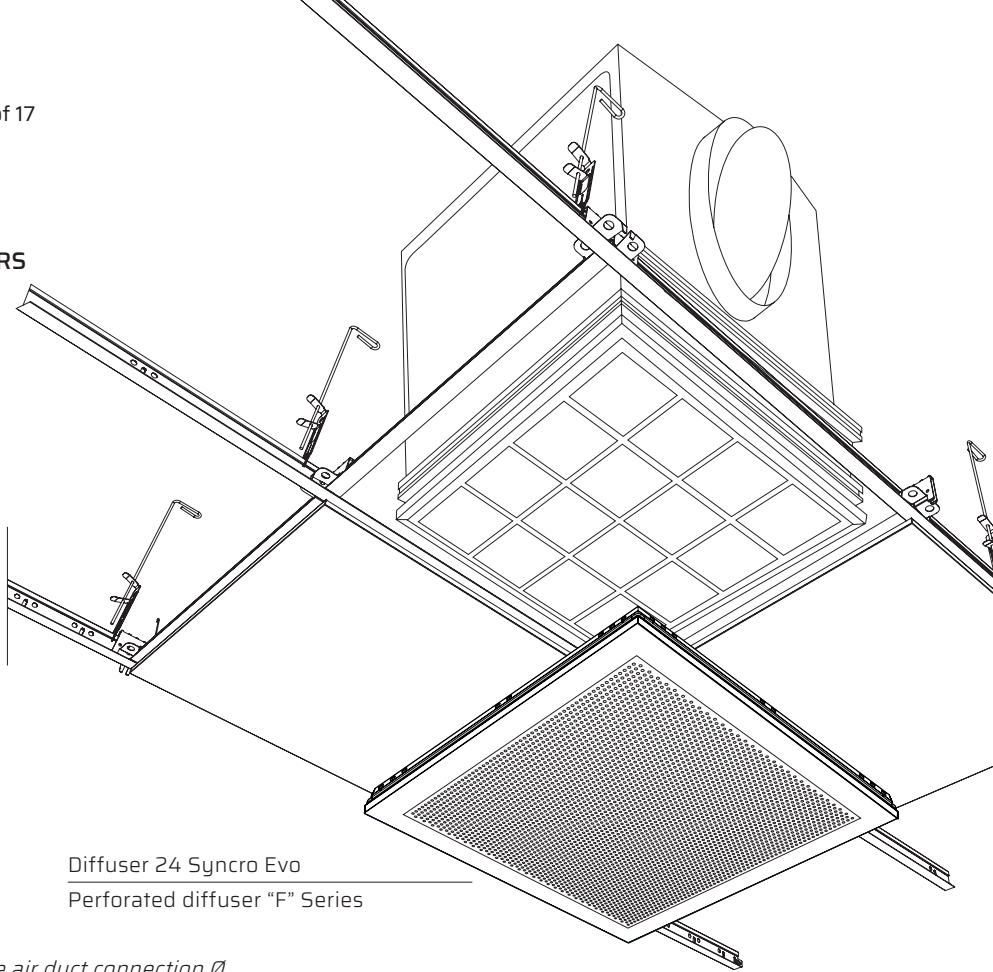
TERMINAL UNITS FOR FILTERS

The terminal unit for 24 Syncro EVO ceiling is made up of an extruded aluminum frame which houses the absolute filter.

Terminals are therefore properly conceived to be perfectly integrated into the metal ceiling without altering the sealing features, and the aesthetic result.

Plenum with lateral connection, equipped with two sockets for DOP / Δp differential pressure probe.

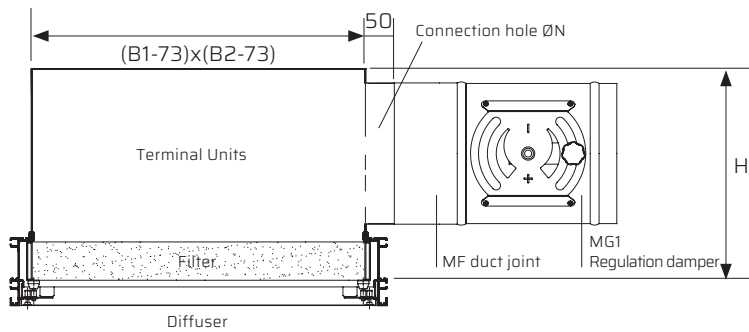
24 SYNCRO EVO diffuser is made in the same material of the panel with sealing gasket to be installed on site.



On request:

*custom made high and/or custom made air duct connection \emptyset
upper air duct connection | terminal units insulation*

System with lateral air duct connection

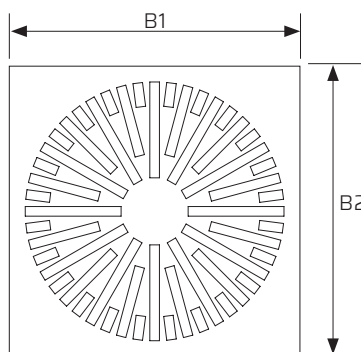


REGULATION DAMPER KIT

On Request, MG1 Regulation damper, with manual or motorized operating mechanism and MF duct joint to be coupled with the terminal unit connection.

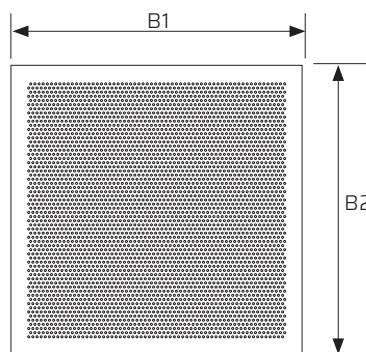


Supply and return air diffuser



E Serie | Helical diffuser

Flow: turbulent high induction radial motion, pre-set deflectors
Usage: supply



F Serie | Perforated diffuser

Flow: unidirectional without deflectors
Usage: supply / return

TERMINAL UNITS FEATURES

CODE	TERMINAL UNIT DIMENSIONS (BxBxL)	HOLE \emptyset (mm)	Maximum S. AIR FLOW RATE (m ³ /h)
-	365x365x320	160	290
-	517x517x420	200	452
-	517x517x420	250	707
-	595x595x420	250	707
-	595x595x420	315	1122

Module 600x600mm

Terminal units supply flow rate without filter and diffuser. For filters and diffusers data consider the proper schedules.

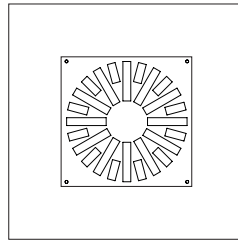
HELICAL DIFFUSERS

SUPPLY

Module 600x600 mm

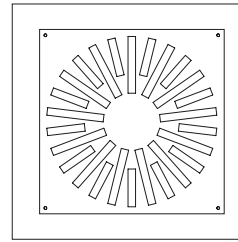
"E Series" delivery diffusers for high induction turbulent flow with radial motion, equipped with special deflectors for flow rate optimizing, mixing and noise. The deflectors are pre-set and do not require any adjustments.

E1



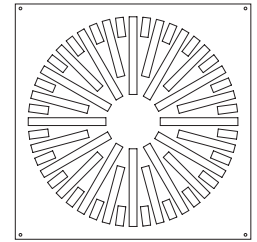
E1= Helical diffuser
T. Unit 365x365xh

E2



E2= Helical diffuser
T. Unit 517x517xh

E3



E3= Helical diffuser
T. Unit 595x595xh

DIFFUSER CODE	TERMINAL UNIT			DIFFUSER FEATURE							
	BxBxH	HOLE Ø mm	Maximum Supply AIR FLOW RATE m³/h	MOD.	S (m²)	V _k (m/s)	Dp (Pa)	NR	L _{0,2} (m)	I	ΔT _L /ΔT ₀
-	365x365x320	160	290	E1	0,0141	5,7	49	37	3,1	60,3	0,04
-	517x517x420	200	452	E2	0,0236	5,3	43	38	3,3	54,2	0,04
-	517x517x420	250	707	E2	0,0236	8,3	105	49	4,7	81,9	0,03
-	595x595x466	250	707	E3	0,0424	4,6	32	37	3,1	31,7	0,06
-	595x595x466	315	1122	E3	0,0424	7,4	82	48	4,6	48,6	0,04

Caption:

S= effective outlet area

V_k= velocity relating to S

Dp= pressure loss

NR= noise rating

L_{0,2}= blast radius with V_m=0,2 m/s

I= induction ratio (=Q_i/Q₀)

ΔT_L/ΔT₀=

temperature ratio

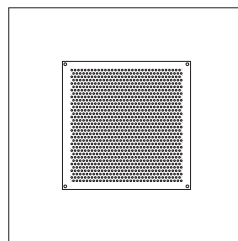
PERFORATED DIFFUSERS

RETURN / SUPPLY

Module 600x600 mm

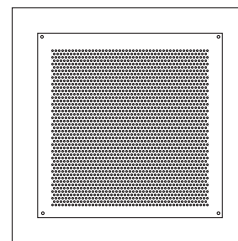
"F Series" perforated diffusers without deflectors for one-way flow, to be used as return or supply where a one-way flow is required, for example, above the operating table.

F1



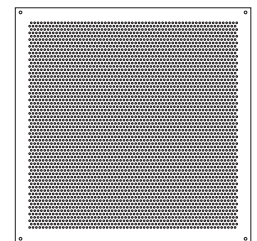
F1= Perforated diffuser
T. Unit 365x365xh

F2



F2= Perforated diffuser
T. Unit 517x517xh

F3



F3= Perforated diffuser
T. Unit 595x595xh

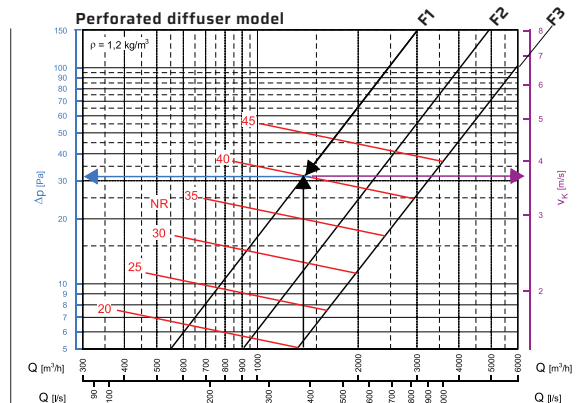
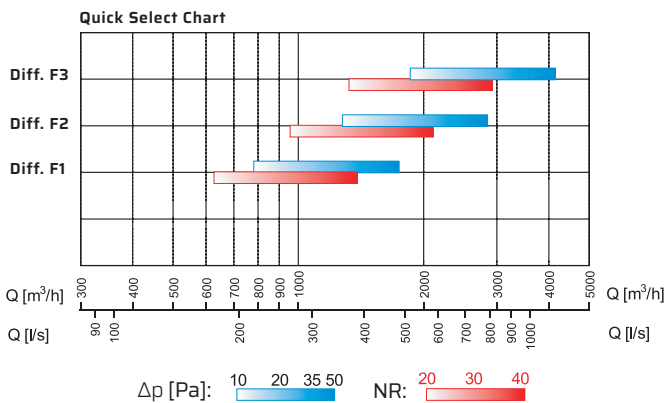
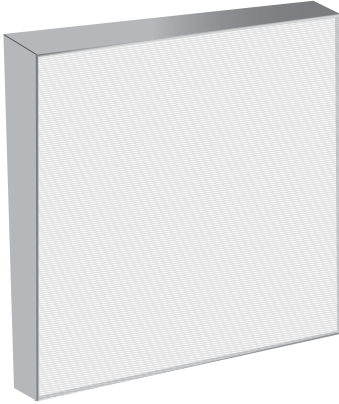


Chart caption: Δp= total pressure loss [Pa]
Q= supply air flow rate [m³/h] or [l/s]

V_k= velocity relating to the effective outlet area S

NR= noise rating
(ISO standard, referred to 10⁻¹²W) not considering the attenuation of the room

ABSOLUTE FILTER FOR LAMINAR FLOW



Filters for absolute filtration of low turbulence laminar flows in controlled contamination environments. Extruded aluminum frame and filter in water-repellent fire-retardant glass microfiber, separators in heat-sealed wire and protective screen in painted steel on both sides. Two-component polyurethane sealant with one-piece cast polyurethane gasket. Filters fixing to the filter holder frame with seal through elastometer and mechanical tightening.

Each filter is equipped with con individual test certificate.

Filtration Class:

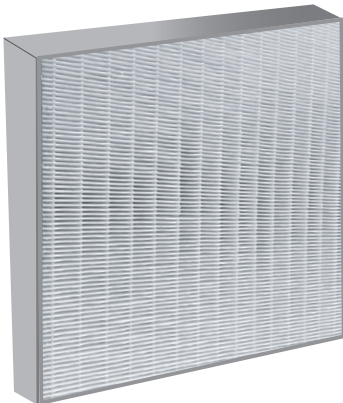
H14 | HEPA (High Efficiency Particulate Air filter)
 weighted average efficiency: >99,999 (EN 1822)

U15 | ULPA (Ultra Low Penetration Air).
 weighted average efficiency: > 99,9999 (EN 1822)

FIELDS OF USE

MAXIMUM TEMPERATURE	80°C	ΔPt FINAL RECOMMENDED	600 Pa
RELATIVE HUMIDITY	100%	ΔPt MAXIMUM	1000 Pa

HIGH-EFFICIENCY FILTERS



High-efficiency filters made up of a galvanized steel frame, a filtering septum in water-repellent fireproof glass microfiber, thermoplastic spacers and a polyurethane sealant.

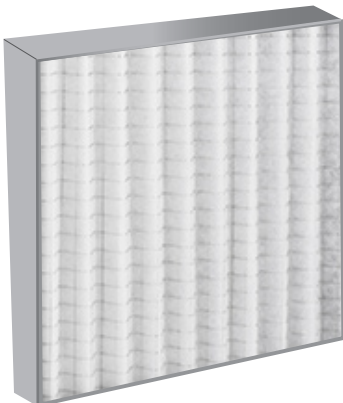
Filtration Class: F7-F9 (EN1822:2009 - ISO 16890)

Weight Average Efficiency: 55% -80%

FIELDS OF USE

MAXIMUM TEMPERATURE	80°C	ΔPt FINAL RECOMMENDED	300 Pa
RELATIVE HUMIDITY	100%	ΔPt MAXIMUM	450 Pa

SYNTHETIC FIBER FILTER CELLS



Corrugated synthetic fiber filter cells for fine dust filtration, made up of a galvanized steel frame, a corrugated resin-coated synthetic fiber filter media and a galvanized steel electro-welded protection mesh fixed on both sides of the filter cell.

Filtration Class: F5 (EN779)

Weight Average Efficiency: 95%

FIELDS OF USE

MAXIMUM TEMPERATURE	80°C	ΔPt FINAL RECOMMENDED	250 Pa
RELATIVE HUMIDITY	90%	ΔPt MAXIMUM	400 Pa

TERMINAL UNITS FEATURES WITH FILTERS

SYSTEM CODE	TERMINAL UNIT*		FILTER			FEATURES OF THE SYSTEM WITH FILTER			
	BxBxH	HOLE Ø mm	MODEL	CLASS	BxHxP	Maximum S. AIR FLOW RATE m ³ /h	PRESSURE LOSS (Pa)	FILTER SURFACE m ²	EFFICIENCY %
-	365x365x320	160	ABSOLUTE	H14	305x305x68	151	120	2,7	>99,999
-	365x365x320	160	ABSOLUTE	U15	305x305x68	151	140	2,7	>99,9999
-	365x365x320	160	HIGH EFFICIENCY	F7	305x305x48	290	94	2,4	>55
-	365x365x320	160	HIGH EFFICIENCY	F9	305x305x48	290	148	2,4	>80
-	365x365x320	160	FINE	F5	305x305x48	290	80	0,3	>95
-	517x517x420	200	ABSOLUTE	H14	457x457x68	338	120	6,2	>99,999
-	517x517x420	200	ABSOLUTE	U15	457x457x68	338	140	6,2	>99,9999
-	517x517x420	200	HIGH EFFICIENCY	F7	457x457x48	452	94	5,3	>55
-	517x517x420	200	HIGH EFFICIENCY	F9	457x457x48	452	148	5,3	>80
-	517x517x420	200	FINE	F5	457x457x48	452	80	0,4	>95
-	517x517x420	250	ABSOLUTE	H14	457x457x68	338	120	6,2	>99,999
-	517x517x420	250	ABSOLUTE	U15	457x457x68	338	140	6,2	>99,9999
-	517x517x420	250	HIGH EFFICIENCY	F7	457x457x48	707	94	5,3	>55
-	517x517x420	250	HIGH EFFICIENCY	F9	457x457x48	707	148	5,3	>80
-	517x517x420	250	FINE	F5	457x457x48	707	80	0,4	>95
-	595x595x466	250	ABSOLUTE	H14	537x537x68	467	120	8,5	>99,999
-	595x595x466	250	ABSOLUTE	U15	537x537x68	467	140	8,5	>99,9999
-	595x595x466	250	HIGH EFFICIENCY	F7	537x537x48	707	94	7,4	>55
-	595x595x466	250	HIGH EFFICIENCY	F9	537x537x48	707	148	7,4	>80
-	595x595x466	250	FINE	F5	537x537x48	707	80	0,6	>95
-	595x595x466	315	ABSOLUTE	H14	537x537x68	467	120	8,5	>99,999
-	595x595x466	315	ABSOLUTE	U15	537x537x68	467	140	8,5	>99,9999
-	595x595x466	315	HIGH EFFICIENCY	F7	537x537x48	1122	94	7,4	>55
-	595x595x466	315	HIGH EFFICIENCY	F9	537x537x48	1122	148	7,4	>80
-	595x595x466	315	FINE	F5	537x537x48	1122	80	0,6	>95

On request: custom made high and/or Ø custom made lateral connection | upper air duct connection | terminal units insulation

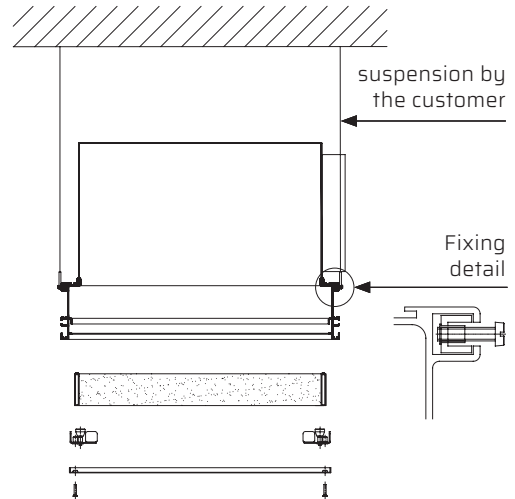
V (m/s) frontal speed | QNOM (m³/h) frontal speed
ΔP (Pa) Pressure lost

The characteristic curve of the filters, to be understood clean filter, allows to estimate the pressure losses (Δp) in function of the frontal speed (V) or of the percentage of flow with respect to the nominal one (Q_{NDM})

The pressure losses are equal to the losses due to the filter plus those related to the diffuser. For filter replacement, the recommended final pressure loss can be measured through the pressure probes installed at the terminal.

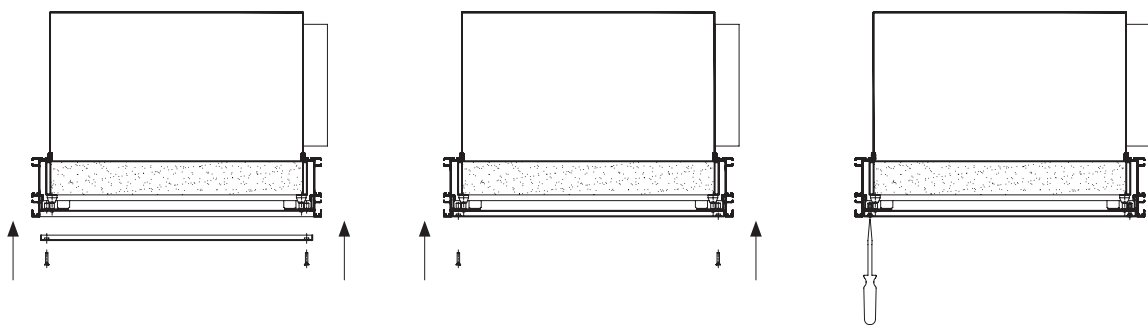
TERMINAL SUSPENSION WITH RODS

- To suspend the terminal without the filter and its diffuser use the tie rods suitably anchored to the special inserts that are positioned in the grooves of the aluminum profile.
- Adjust the position of the tie rods so that the terminal is perfectly placed at the necessary distance from the ceiling.
- Complete the false ceiling installation all around the module with suitable panels, sealing the flange to the panels with silicone if necessary.



DIFFUSER INSTALLATION AND REPLACEMENT

- Lay the diffuser plate against the bottom side of the terminal.
- Insert the four screws in corresponding holes of the plate and the threaded inserts of the fixing blocks then tighten.



CLEANING, MAINTENANCE AND REMOVAL INSTRUCTIONS

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 warm water and neutral and non-abrasive detergents. It is recommended to clean the metal ceiling by dry-cleaning before proceeding with water. 24 | 35 Syncro Evo and Enigma Syncro XL a tenuta of Atena H⁺ range can be washed with high pressure water if sealed with silicone. Metal ceilings made in antimicrobial post painted galvanised steel "Defence H4*" tested for chemical resistance by Fraunhofer Institut di Stuttgart, can be cleaned frequently with diluted disinfectants containing active agents such as formalin, hydrogen peroxide, sulfuric acid, phosphoric acid, hydrochloric acid, isopropanol, sodium hydroxide and sodium hypochlorite.

Metal ceilings maintenance usually refers to: placement, alignment or replacement of damaged or broken modules (panels, staves, baffles, open cells) which can be also removed for restoration or maintenance of the system below.

In order to ensure an excellent results, the maintenance work must be carried out by specialised workers trained with technical data sheets about setting, removal and maintenance of the metal ceilings. Using inadequate tools can damage the bearing structure, causing adherence loss or even accidental modules fall. All the maintenance intervention must follow the technical data sheet instructions or specific information when provided and every diversity has to be promptly reported. Each worker charged with maintenance operation must carefully remove the modules, perform the intervention and do not alter the metal ceiling structure, the hanging system and the connection between these elements.

When the maintenance is over, modules must be installed again, checking that these are well hooked or positioned if they are lay-in/on on a visible structure and that the flatness of the assembly is guaranteed. Any difference in level is caused by wrong installation and, for this reason, the system must be quickly controlled.

STORAGE MODE

Materials supplied by Atena S.p.A. shall be maintained in good condition from purchase to installation. Materials must be stored in a closed, clean and dry site, not under direct light. 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. 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.

FASTENERS

Atena supplies the hangers and accessories such as screws, washers and nuts to connect the elements of its own supply only. Lightings, accessories and systems must not weigh on the metal ceiling system, but must be independently suspended. The fastening must be checked with regard to the loads, the anchoring base features and the installation accuracy, in order not to compromise the stability of the metal ceiling system.

SUSTANABILITY AND SAFETY

All Atena metal ceilings are made with products that do not release dangerous substances into the environment including formaldehyde. Coating and / or sublimation are free from Volatile Organic Compounds (VOC). The products will be recyclable and as a whole manufactured using recycling processes materials, the recycled material percentage is calculated for each type of product, in compliance with CAM requirements and declared according to the ISO 14021 standard.

The metal ceiling systems contribute to getting credits for the certification of building design, construction and sustainable and efficient management according to the LEED protocol and to the BREEAM and ITACA cross-cutting aspects.

NORMATIVE REQUIREMENTS

Atena S.p.A. has adopted a quality management system in compliance with the UNI EN ISO 9001 standard.

All Atena metal ceilings are produced for indoor applications, in compliance with Technical Standards for Construction NTC 2018 and relative circular requirements, the Minimum Environmental Criteria CAM (Ministerial Decree 11 October 2017), the specific technical standards applicable UNI EN 13964 and 14195. Each Atena S.p.A. product has its own DOP (CE Declaration of Performance) according to the European Law for construction products 305/2011.

The performance properties declared in D.o.P. Declarations of Performance provided by Atena S.p.A. are guarantees, if the metal ceiling is installed in the environment conditions for which it has been conceived and the recommended maintenance is executed.

Precisely, metal ceilings are non-structural construction elements therefore they must be properly sized in order to withstand with adequate safety against all actions that can stress the building, such as, but not limited to, earthquakes, winds, thermal expansion, humidity, etc., in relation to the installation site, the building use and the project technical features. Check with Atena technical department the specific environmental conditions to which the product will be subjected, in order to choose the most suitable materials for the installation site.

In the case of outdoor installation, the metal ceilings are not covered by an harmonized technical standard, therefore they are not subject to the regulation 305/2011. They are in any case subjected to the NTC 2018 and to the safety checks of civil constructions, and must be properly sized according to the installation site environmental conditions, to the structural features and to the project specifications.

Independently by information, suggestions, advices and technical opinions exchanged between the parts, during pre-agreement negotiations Atena S.p.A. will manufacture the 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.

All rights are reserved and subject to industrial protection. Changes to the illustrated products, even if partial, can be carried out only if explicitly authorized by the company Atena S.p.A. All data provided and illustrated are indicative and Atena S.p.A. reserves the right to make changes at any time according the business needs and the production processes.

The information contained in this following sheet must to be considered updated at the date of writing. Changes in product performance occurred after that date may affect the accuracy of the data sheet: it is compulsory for users to make sure to have the latest version of this sheet.

WARRANTY

Atena S.p.A. as a manufacturer, covers the manufacturing defects of its products; Except as provided in the specific warranty extensions, the warranty period is one year from delivery of goods. Any complaints must be communicated in accordance with the sales terms and conditions.

The Atena metal ceilings system components have been conceived for this purpose only, any other use is considered improper.