



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



## Steel Strong

### B43



#### PRODUCT TYPE

Visible T-grid system base 43 mm (nominal)

#### CLIP MATERIAL

Galvanised steel DX51D-Z100 thick. 0,35 mm x 2 ~ 0,70 mm

#### STRUCTURE MATERIAL

Main profile: galvanised steel DX51D-Z100 thick. 0,35 mm  
Cross T: galvanised steel DX51D-Z100 thick. 0,35 mm

#### CAPPING MATERIAL

Pre-painted steel thick. 0,30 mm

#### T-GRID CONNECTION

Main profile: head to head connection with printed hook  
Cross profiles: with printed hook

#### COLOURS AND PERFORMANCE

White	Corrosion resist. C2
Galvanized	Corrosion resist. C2
Post-painted	Corrosion resist. C2   C4
Antimicrobial treatment	Corrosion resist. C2   C4

#### T-GRID WEIGHT

1,48 kg/mq  
hanger and wall angles not included

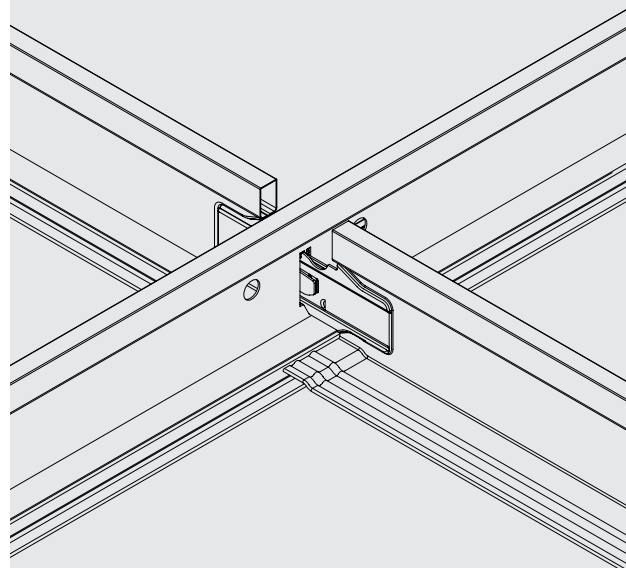
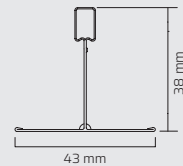
#### PACKAGING

Light brown boxes with white strip














#### VIEW

##### T-grid profiles







3700 | 1200 | 600 mm



## TECHNICAL PERFORMANCES

	<b>EXPOSURE CLASS</b>	A Class	
	<b>CLIP TENSILE STRENGTH</b>		
	<b>FLEXION RESISTANCE</b>	Maximum span mm 1200 - <b>1 Class</b> EN13964	
	<b>CORROSION RESISTANCE</b>	Galvanized steel products: <b>C2 Class</b> Pre-painted galvanized steel products: <b>C3 Class</b> Post-painted galvanized steel products: <b>C4 Class</b> Pre/post-painted aluminium products: <b>C5 Class</b>	
	<b>(RH%) RELATIVE HUMIDITY RESISTANCE</b>	Galvanized steel products: ≤ <b>90%</b> Pre/post-painted galvanized steel products: > <b>90%</b> Stainless steel and aluminium products: > <b>90</b>	
	<b>FIRE REACTION</b> UNI EN 13501-1	<b>A1 Class</b>	
	<b>FIRE RESISTANCE</b> UNI EN 13501-2	<b>EI 60</b>   double gypsum additive tile tot. t. 25 mm and mineral wool fill 50 kg/m <sup>3</sup> 50 mm thick.	Concrete UNI EN 13501-1-2
		<b>EI 120</b>   double gypsum additive tile tot. t. 45 mm and mineral wool fill 50 kg/m <sup>3</sup> 50 mm thick.	Concrete UNI EN 13501-1-2
	<b>METAL CEILING MAXIMUM LOAD</b>	25 kg/m <sup>2</sup>	
	<b>LIGHT REFLECTION</b>	Gloss smooth white: up to 85% ISO 7724-2 (3)	
	<b>COLOR STABILITY</b>	In compliance with standard technical tolerances. Test according to the ΔE - CIELab method. ISO 7724-2 (3)	
	<b>CLEANING</b>	Wet cloth with warm water and neutral non-abrasive detergents.	
	<b>DURABILITY OF PAINTED ITEMS</b>	C Class EN13964	
	<b>DURABILITY OF GALVANIZED ITEMS</b>	B Class EN13964	

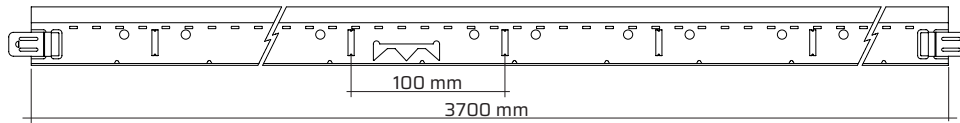
## SUSTAINABILITY

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

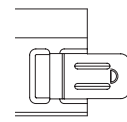
\* Data declaration as required by the ISO 14021 standard

## B43

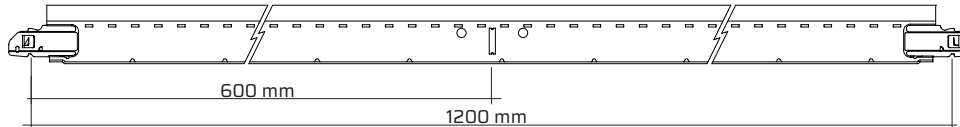
Main profile 3700 mm



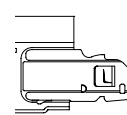
Main T clip



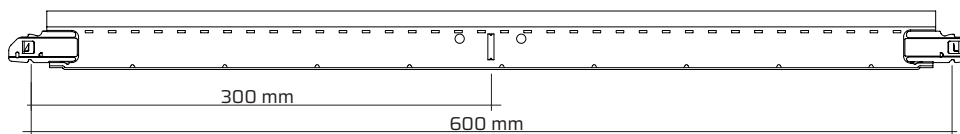
Cross profile 1200 mm



B43 Hook



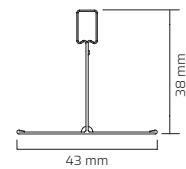
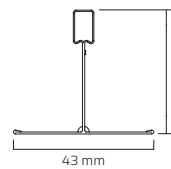
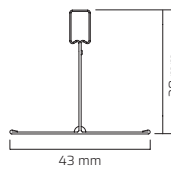
Cross profile 600 mm



## DIMENSIONS

CODE	LENGHT	DIMENSION	PCS/BOX	BOX WEIGHT	BOX/PALLET	PALLET WEIGHT
RA143370BRTAU	3700 mm	43x38 mm	12	20,27 kg	36	730 kg
RA143120BRTAU	1200 mm	43x38 mm	28	15,33 kg	60	920 kg
RA143060BRTAU	600 mm	43x38 mm	28	7,66 kg	120	919,2 kg

\* The grey part of code changes according to the features of the required.



### INCIDENCES

B43 lenght	3700 mm	1200 mm	600 mm
Module 600x600	0,85 ml/m <sup>2</sup>	1,70 ml/m <sup>2</sup>	0,85 ml/m <sup>2</sup>
Module 600x1200	0,85 ml/m <sup>2</sup>	1,70 ml/m <sup>2</sup>	-

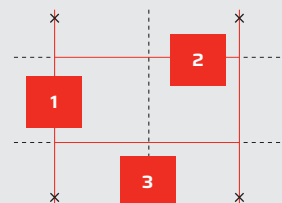
## BEARING CAPACITY

Maximum load = 25 kg/mq | Maximum deflection = L/360  
Lab. Test Cert TV

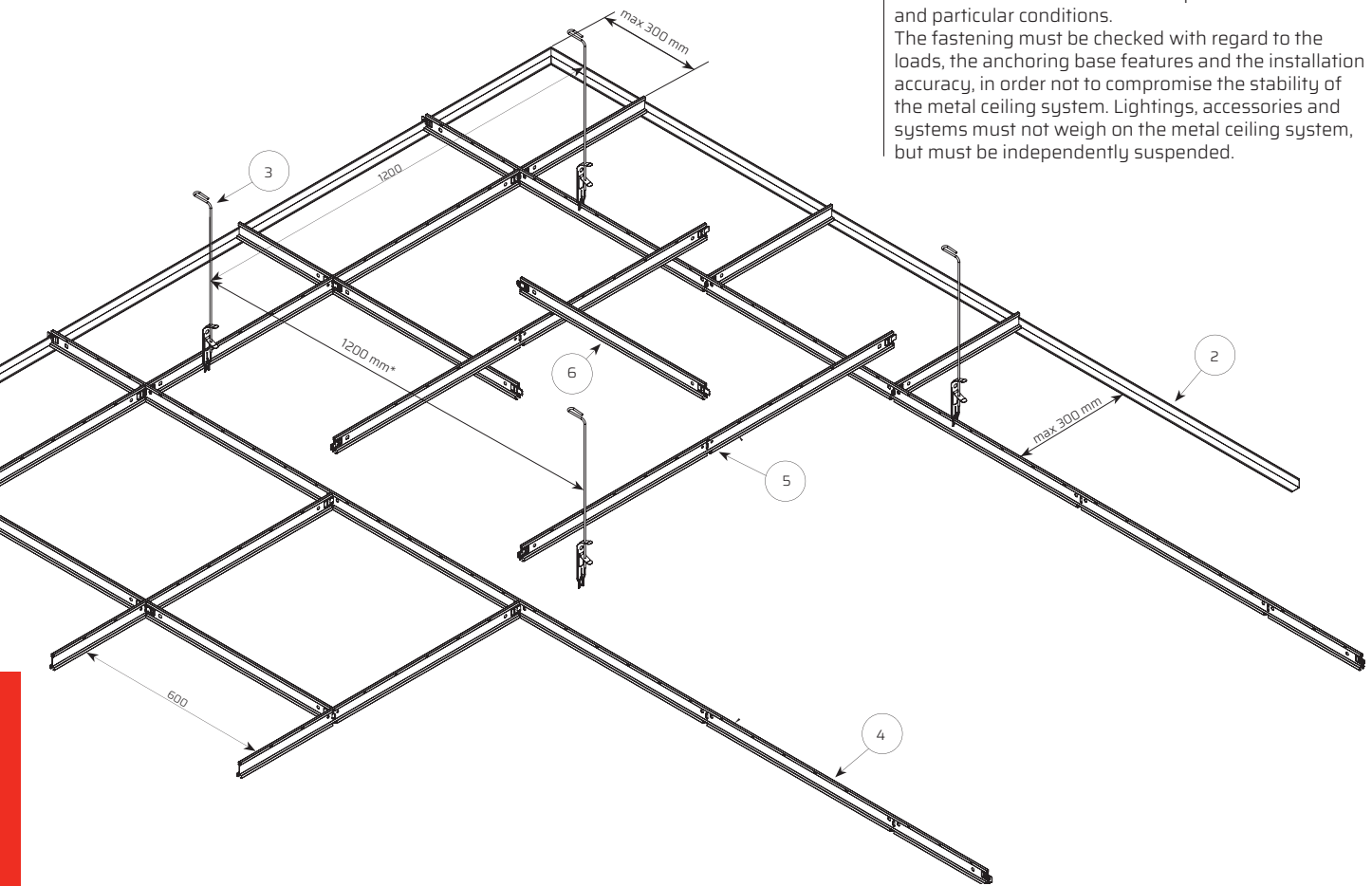
For different deflection, consider this following table

MAX FLEXION	L/300	L/360	L/400	L/500
MULTIPLYER VALUE	1,2	1	0,9	0,72

(1) Main T 3700 mm  
(2) Cross T 1200 mm  
(3) Cross T 600 mm



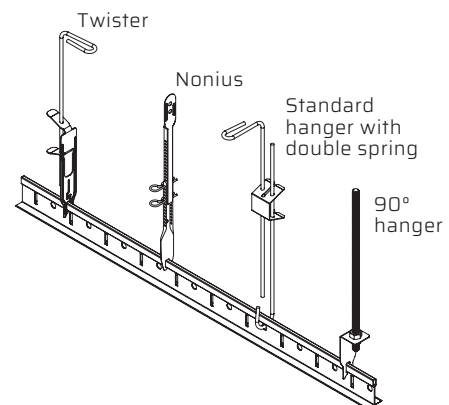
## INSTALLATION STEPS



**\*Nota:** verify interaxes and hanger models according to the load at m<sup>2</sup> the antiseismic report when required and particular conditions.  
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. Lightings, accessories and systems must not weigh on the metal ceiling system, but must be independently suspended.

- 1 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 installation of structure.
- 2 Install the wall angles with nails, screws and / or plugs suitable to the wall material.
- 3 Fix the hangers to the anchoring base; hook the 3700 mm "main profiles" on the hangers with an distance of 800 | 900 mm\*.
- 4 Complete the installation of man profiles at a distance of 1200 mm.
- 5 Insert the clips\* of 1200 mm cross T on the main T punches.
- 6 Insert the clips\* of 600 mm cross T on the 1200 mm cross T punches.

## HANGERS



**\*Nota:** to set up a proper coupling of the structure, hold the left side of the punched profile and press slightly to snap the clip into place. The click ensures the proper attachment of the structure.  
To release, press the tab of the locking clip and remove the profile..

## 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. 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.

## 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.

## 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.

## **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 celings system components have been conceived for this purpose only, any other use is considered improper.