



# FRACTAL



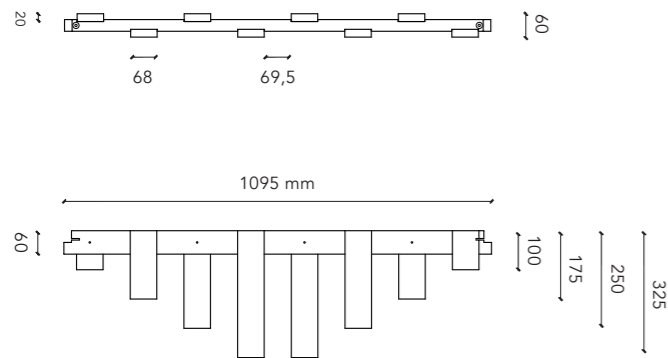
VERTICAL SLATTED TIMBER MODULES  
FOR SUSPENDED CEILINGS



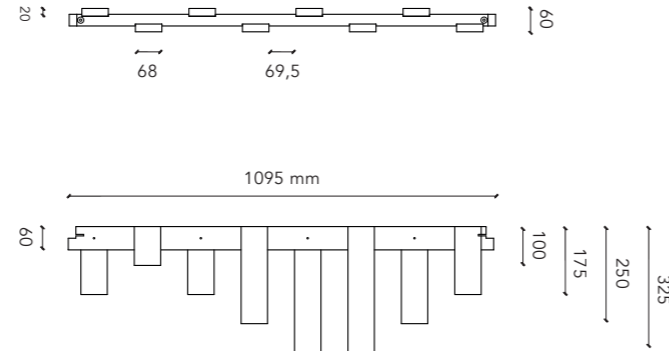
LAUDESCHER

## MODULES DESCRIPTION

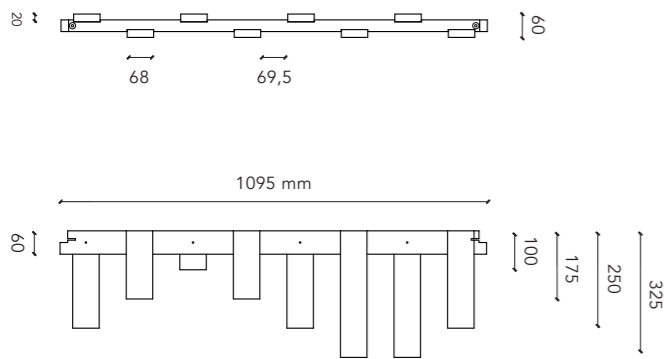
Module A



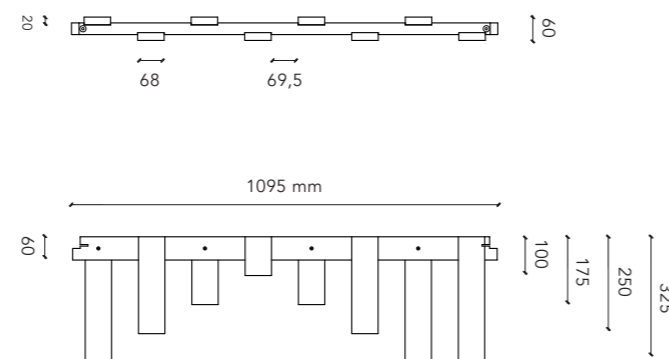
Module B



Module C



Module D



## TECHNICAL CHARACTERISTICS

Dimensions	1095 x 325 mm	Weight (with metal plate, without acoustic plate)	
Cross-section of slats	68 mm (face) x 20 mm (height)	Pine	21,7 kg/m <sup>2</sup>
Spacing between slats	69,5 mm	Oak	26,2 kg/m <sup>2</sup>
Centre distance of slats	137,5 mm	Beech	25,3 kg/m <sup>2</sup>
Black rear counter-slats	30 x 60 mm		
Overall thickness	60 mm		
Wood species	Pine, oak, beech		
Reaction to fire	Available on request		

## OVERVIEW



## WOOD SPECIES



Pine

Oak

Beech

## ACOUSTIC

### Algae eco-based acoustic plate



Tile dimensions	600 x 1100 mm
Thickness	35 mm
Volumetric mass	133 kg / m <sup>3</sup>
Environmental performance	From a certified EPD : Global warming potential for A1-A3: -1,75 kg CO <sub>2</sub> -eq/m <sup>2</sup>

### Rockwool acoustic plate

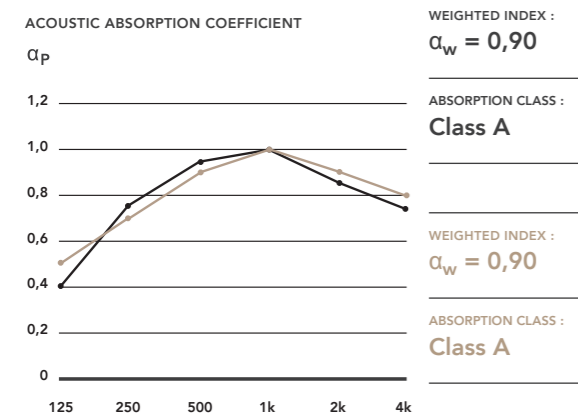


Tile dimensions	600 x 1200 mm
Thickness	22 mm
Volumetric mass	100 kg / m <sup>3</sup>
Environmental performance	From a certified EPD : Global warming potential for A1-A3: 3,46 kg CO <sub>2</sub> -eq/m <sup>2</sup>

## FRACTAL

+ ALGAE 35mm on plenum E150mm  
OR ALGAE 35mm on plenum E300mm

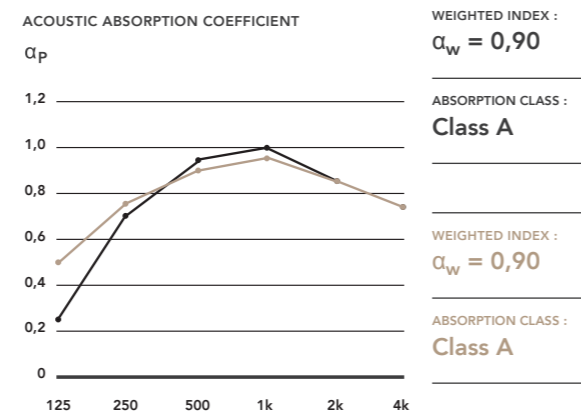
Acoustic absorption was measured as per the ISO 354 standard.



## FRACTAL

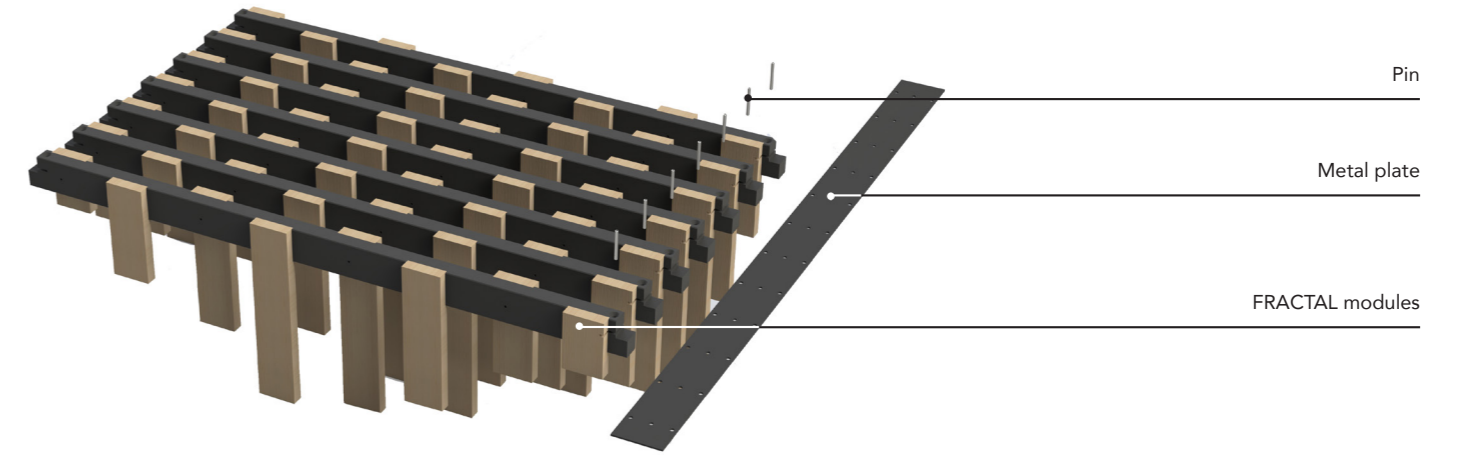
+ ROCKWOOL 22mm on plenum E150mm  
OR ROCKWOOL 22mm on plenum E300mm

Acoustic absorption was measured as per the ISO 354 standard.

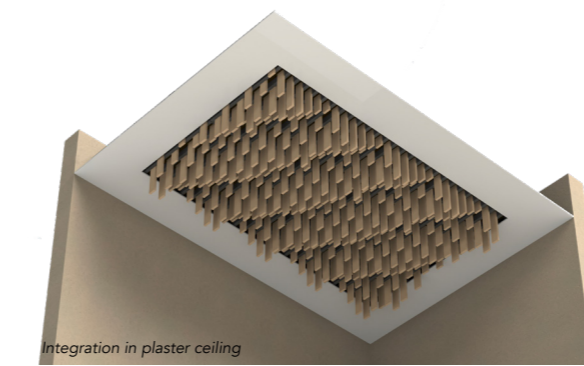


## INSTALLATION

A pattern is composed of 7 modules, joined by metal plates and pins.



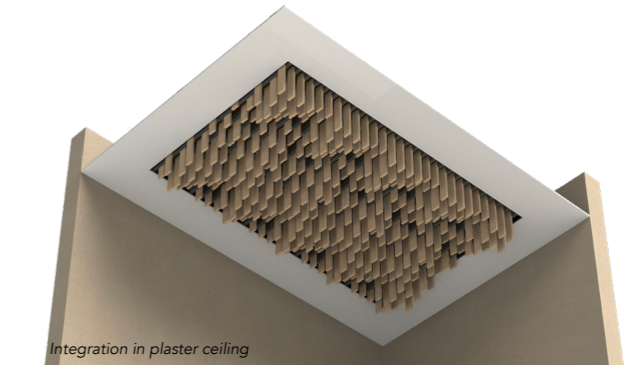
### Wave pattern



To create this wave pattern, modules must be joined in the following order :

A - B - C - D - D' - C' - B'

### Random pattern

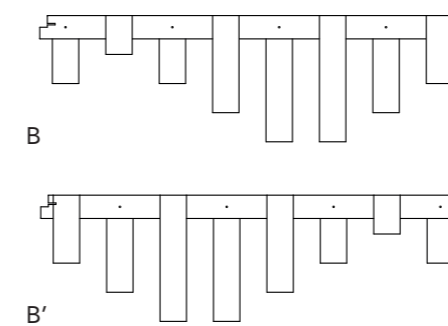


To create this random pattern, modules must be joined in the following order :

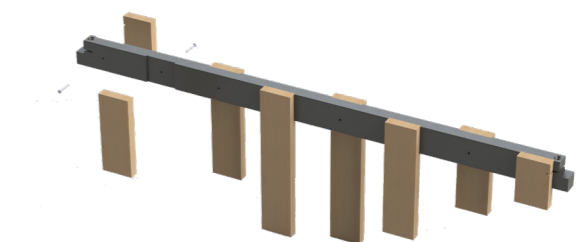
A - B - C - D - D - C - B

The modules order can be modified, for a different visual aspect.

Example : B and B' modules (mirror of B)



Possibility to unscrew slats, for integration above plaster ceiling



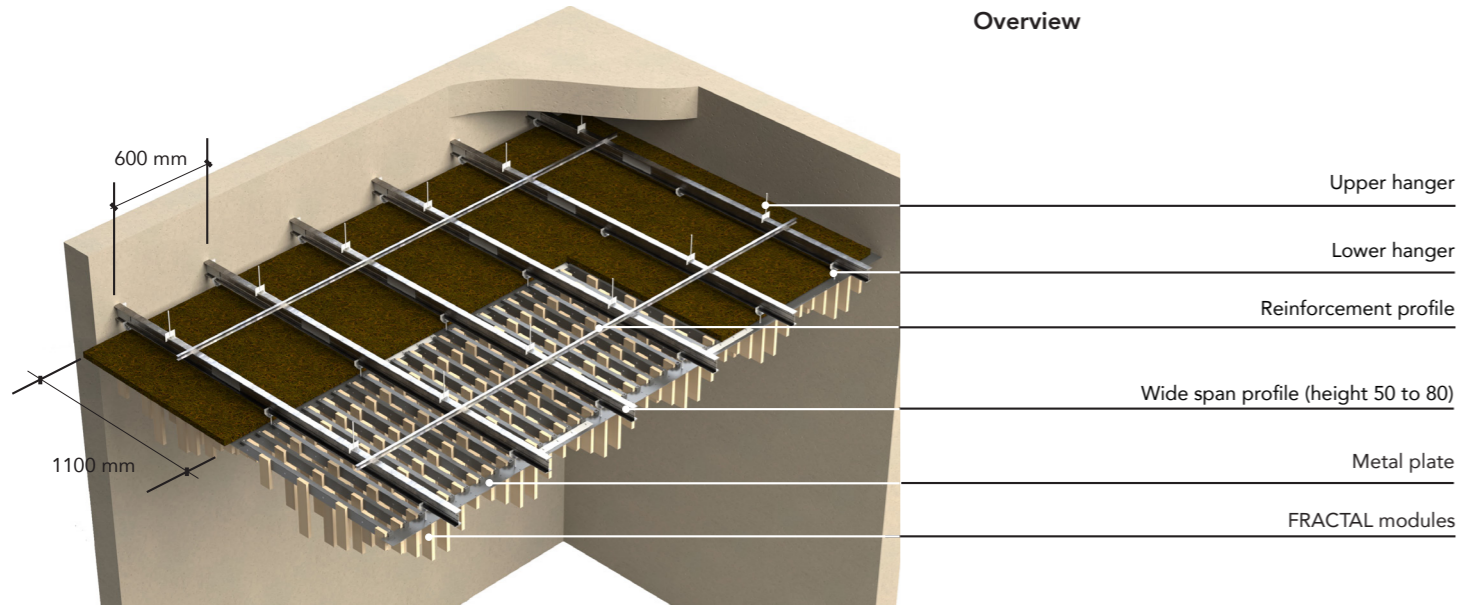
## INSTALLATION ON WIDE SPAN PROFILES

### Frame

The ceiling can be installed on a wide span grid system as per our patented system and as per DTU 58-1. Laudescher supplies metal plates and pins. Others structural elements are not supplied by Laudescher.

*The entire framework and suspension system must be designed when applying in moist and/or corrosive environments.*

### Overview



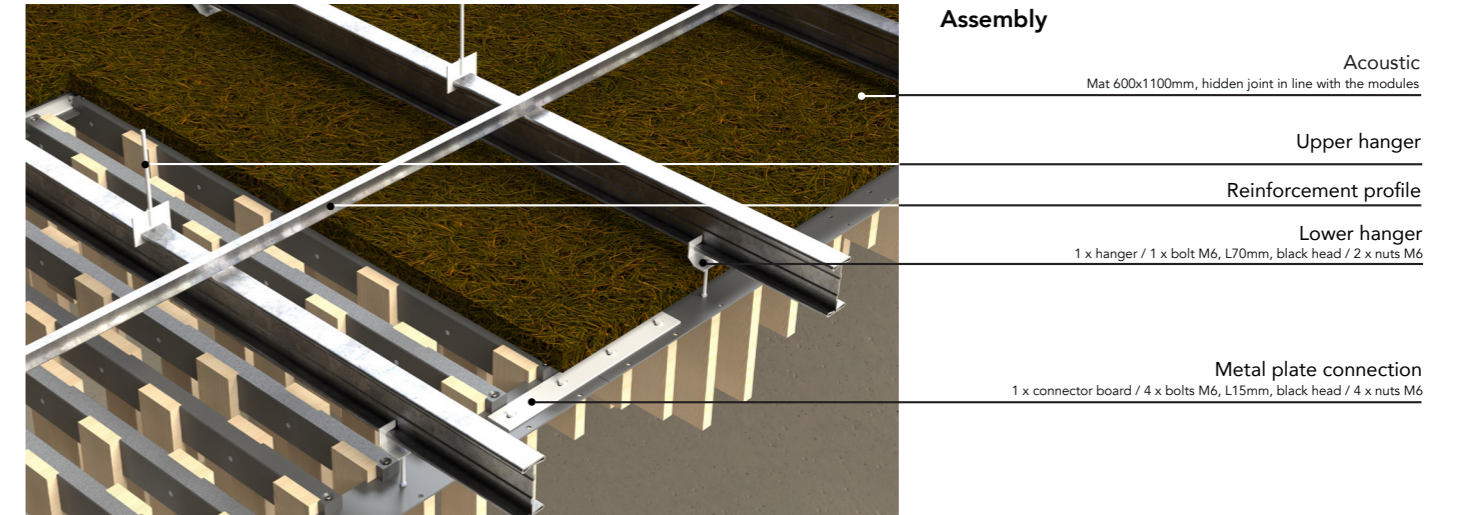
### DESCRIPTION

Wide span profile	Centre distance 600 mm
Reinforcement profile	1 item between top hangers
Distance between top hangers	Select according to the wide span profile structural performances
Hanging of the metal plate	See assembly details

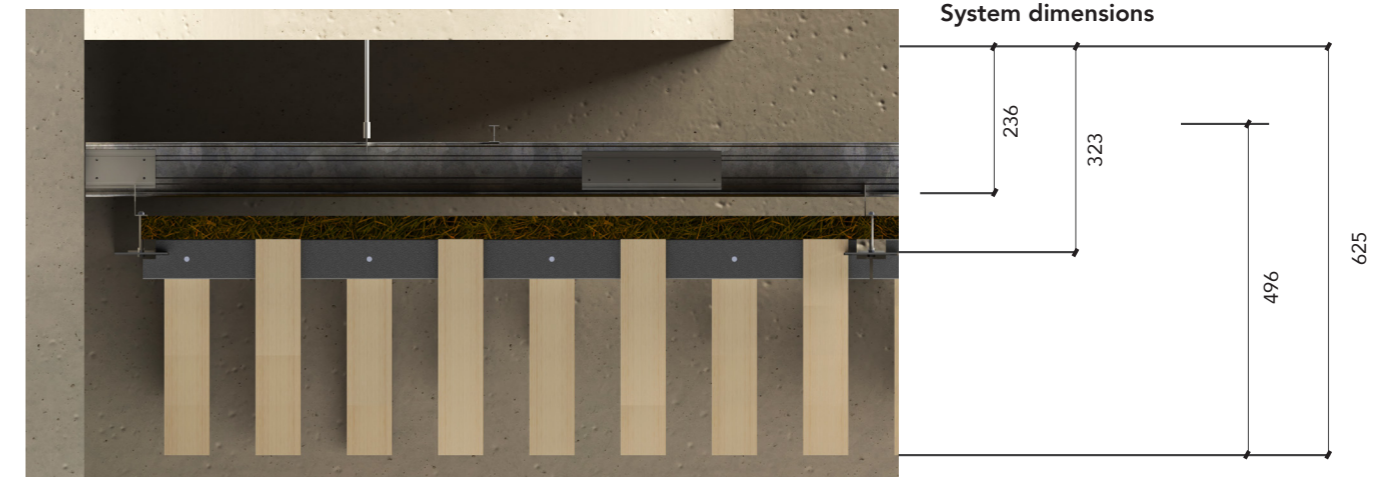
### FRAME COVERAGE

Wide span profile	1,7 ml/m <sup>2</sup>
Reinforcement profile	0,4 ml/m <sup>2</sup>
Upper hanger	0,7 units/m <sup>2</sup>
Lower hanger	1,5 units/m <sup>2</sup>

*It is important to check the structural design of the hangers and the grid system according to the profiles used.*



### System dimensions



*The dimensions shown are for a 300 mm acoustic plenum, in accordance with our test report.*

Height of frame installation

Height of metal plate installation

Complex thickness  
For a wide span profile with a height of 80 mm

Acoustic thickness

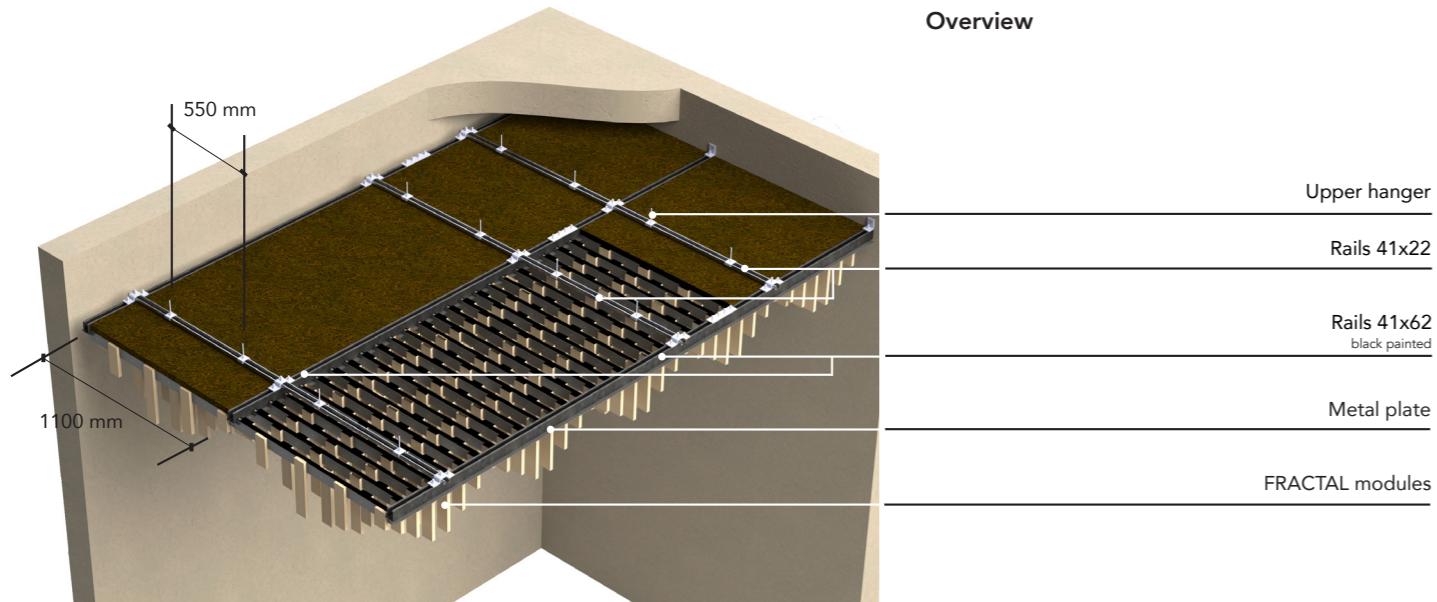
## INSTALLATION ON FRAMING CHANNELS

### Frame

The ceiling can be installed on a framing channels system as per our patented system and as per DTU 58-1. Laudescher supplies metal plates and pins. Others structural elements are not supplied by Laudescher.

*The entire framework and suspension system must be designed when applying in moist and/or corrosive environments.*

### Overview



### DESCRIPTION

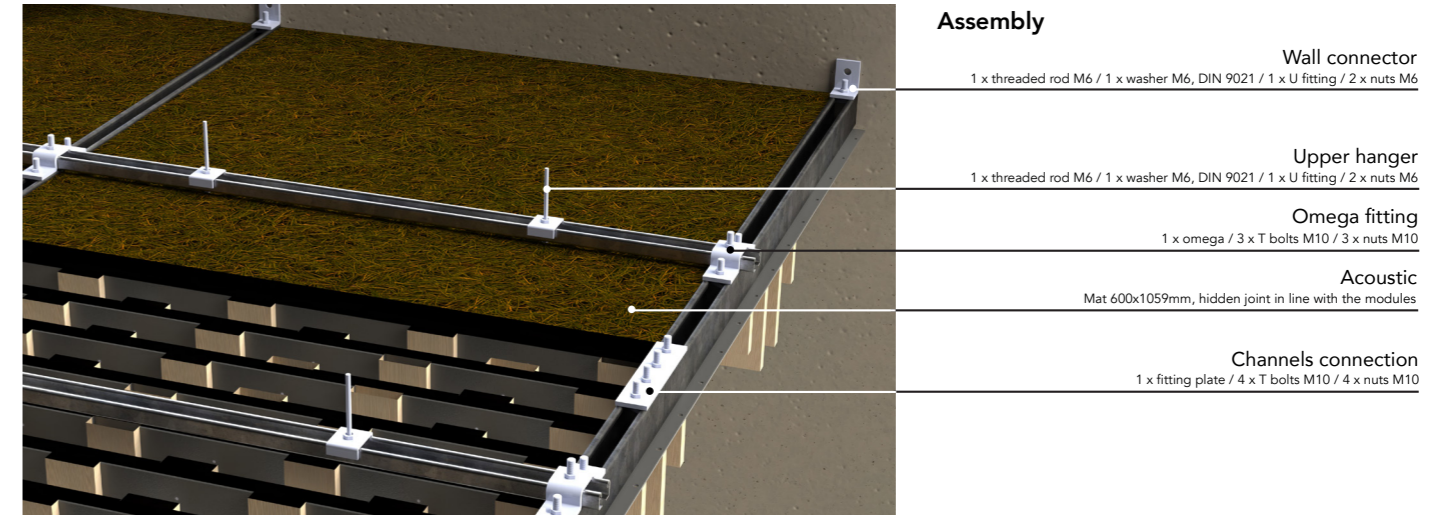
Rails 41x62	Centre distance 1100 mm
Rails 41x22	Centre distance < 3000 mm (On either side of a framing channel connection)
Distance between hangers	Maximum 550 mm Maximum 275 mm from edge
Hangers and fittings	See assembly details

### FRAME COVERAGE

Rail 41x62	0,91 ml/m <sup>2</sup>
Rail 41x22	0,33 ml/m <sup>2</sup>
Omega fittings	0,3 units/m <sup>2</sup>
Threaded rod hangers	0,7 units/m <sup>2</sup>
Metal plate connection	2,5 units/m <sup>2</sup>
Other fittings	According to project

Add a row of framing channels to complete the grid.  
Permissible load for channels thickness greater than 1.5 mm > 40 kg/m<sup>2</sup>.  
It is important to check the structural design of the hangers and the grid system according to the profiles used.

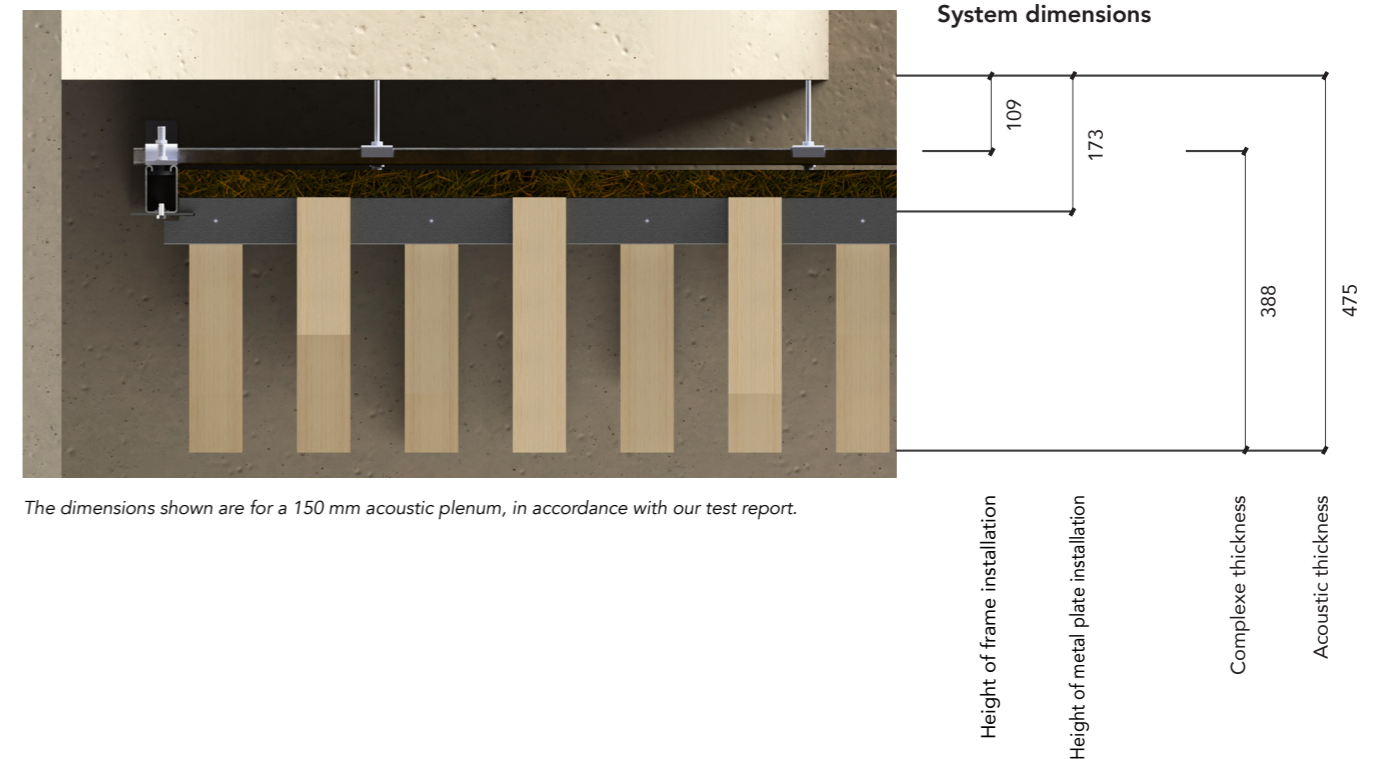
### Assembly



### Assembly details



### System dimensions



*The dimensions shown are for a 150 mm acoustic plenum, in accordance with our test report.*



LAUDESCHER

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