

The logo consists of the letters 'RAM' in a bold, white, sans-serif font, centered within a solid black square.

ARCHITECTURAL METAL

**RAM METAL INDUSTRIES, L.L.C.**

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The logo consists of the letters 'RAM' in a bold, black, sans-serif font.

ARCHITECTURAL METAL

MASTER CATALOG



# MAKING THE WORLD'S SPACES EXTRAORDINARY

Our vision is to advance the design and technology of architectural solutions for our clients and the world. We aim to stay at the leading edge of our industry by introducing sustainable solutions that bring light and beauty to the spaces we create.

# OUR STORY

In 1957, Samir Rayes founded a ceiling manufacturing company in Kuwait based on exceptional quality and morally ethical business practices. His vision and dream expanded to Beirut in 1967, adding to their portfolio the production of metal ceilings. Samir broadened the work of the facility in Kuwait to include industrial extrusion in 1977, manufacturing high-quality ceiling and partition solutions while maintaining a commitment to quality and integrity.

After graduating from George Washington University in Washington, D.C., in 1989, Samir's son Ghaith El Rayes continued his father's legacy by establishing RAM in Dubai, expanding the company from linear profiles into custom solutions to provide a superior experience that elevates light and beauty.

As the market demand for custom ceiling solutions grew, Ghaith ventured into yet a larger manufacturing facility in the Dubai Industrial City in 2010, establishing RAM as the largest ceiling manufacturing company in the Middle East and one of the leading ceiling companies worldwide. To ensure RAM maintain the highest international standards of quality while serving megaprojects, a logistics facility was inaugurated in 2017.

Today, RAM is based in Dubai and is a global leader in design and manufacturing, harnessing our natural resources to create exceptional architectural solutions. As a family business, we value relationships and honesty, working as full partners with our clients to bring their vision to life.



1957

Company founded by Samir Rayes in Kuwait

1967

Factory branch opens in Beirut

First production of metal ceilings

1977

Factory expansion in Kuwait

High quality ceilings and partition solutions added

1989

Ghaith El Rayes joins the company

Dubai branch established  
Custom ceiling solutions added

2009

Expansion to larger manufacturing facility in Dubai

RAM established as largest ceiling manufacturer in the Middle East

2017+

Logistics facility inaugurated in Dubai

RAM a global leader in the manufacture of architectural metal solutions



## WHAT WE DO

RAM provides high-quality architectural metal solutions ranging from innovative metal ceilings, integrated lighting, movable decorative walls, to internal and external architectural wall cladding—creating elegant, illuminated spaces.



RAM 910 Blade | Ahmed Seddiqi & Sons Headquarters | U.A.E.



RAM 610 SR | Midfield Terminal Project | U.A.E.



RAM 950 3D | Toyota Showroom | U.A.E.



**RAM 5010 Metal Bulkhead** | Midfield Terminal Project | U.A.E.



**RAM 930 Tubular** | RAM Metal Industries LLC | U.A.E.



## OUR PROCESS

We deliver high-quality products for our clients, working with architects to create solutions that are environmentally sound, architecturally innovative, and inspirational.

# GUIDED BY INTEGRITY, DRIVEN BY INNOVATION


## OUR FUTURE

We value the act of reinvention and innovation, striving to create and improve sustainable solutions that meet the highest industry standards while advancing the technology to bring superior products to life.



# CEILING SYSTEMS

**100 SERIES  
LINEAR**

<b>20</b> Strip RAM 111-112	<b>22</b> Strip RAM 121-122	<b>24</b>  Strip RAM 131
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**200 SERIES  
MODULAR**

<b>28</b> Clip-in RAM 211-212	<b>30</b> Lay-in/Lay-on RAM 221-223	<b>32</b> Hook-on RAM 231	<b>34</b> Snap-on RAM 241
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**300 SERIES  
OPEN GRID**

<b>38</b> Open Cell Continuous RAM 311-314	<b>40</b> Open Cell Lay-on RAM 321-322	<b>42</b> Open Cell Torsion RAM 331
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**400 SERIES  
CORRIDOR SOLUTIONS**

<b>46</b> Self Supported Hook-on RAM 411	<b>48</b> Self Supported Lay-in RAM 421	<b>50</b> Self Supported Clip-in RAM 431	<b>52</b> Self Supported Slide RAM 441-443
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**500 SERIES  
BEAM GRID**

<b>58</b> Continuous/Inverted RAM 511-512	<b>60</b> Threaded/Flat RAM 521-522	<b>62</b> Hook-on RAM 531
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**600 SERIES  
TORSION**

<b>66</b> SR RAM 611	<b>68</b> T RAM 621-622
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**700 SERIES  
FIRE RATED**

<b>72</b>  F90 RAM 711	<b>74</b>  F120 RAM 721
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**800 SERIES  
SECURITY**

<b>78</b>  High Guard RAM 811-812
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**900 SERIES  
BAFFLE**

<b>82</b> Blade RAM 911-912	<b>84</b> Baffle RAM 921-922	<b>86</b> Tubular RAM 931-932	<b>88</b> Diaspace RAM 941	<b>90</b> 3D RAM 951
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**1000 SERIES  
CURVED**

<b>94</b> Wings RAM 1011	<b>96</b> Waves RAM 1021
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**1100 SERIES  
MESH**

<b>100</b> Mesh RAM 1111-1114
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**1200 SERIES  
BESPOKE**

<b>104</b> Bespoke RAM 1211
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# WALL SYSTEMS

2000 SERIES  
DEMOUNTABLE INTER-  
NAL METAL CLADDING



**108**

Internal Wall Covering  
RAM 2011-2014



**110**

Internal Column Covering  
RAM 2021-2024

2100 SERIES  
EXTERNAL METAL  
CLADDING



**114**

External Wall Covering  
RAM 2111-2114



**116**

External Column Covering  
RAM 2121-2124

2200 SERIES  
BESPOKE  
WALL CLADDING



**120**

Bespoke Wall Cladding  
RAM 2211

# SHADE CONTROL

3000 SERIES  
SHADE CONTROL



**124**

Shade Control  
RAM 3011

# ARCHITECTURAL ELEMENTS

5000 SERIES  
METAL BULKHEAD



**128**

Metal Bulkhead  
RAM 5011-5012

5100 SERIES  
METAL COVE LIGHT



**130**

Metal Light Reflector  
RAM 5111

5200 SERIES  
METAL SKIRTING

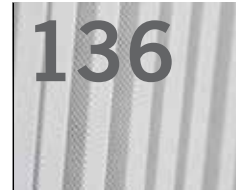


**132**

Metal Skirting  
RAM 5211


# SURFACE DESIGN PATTERNS

6000 SERIES  
SURFACE DESIGN  
PATTERNS



**136**

Perforation Patterns  
6010



**140**

Expanded Metal Mesh Patterns  
6020

# TECHNICAL INFO

144 COLORS/FINISHES

150 DATA/PERFORMANCE



CEILING SYSTEMS  
**LINEAR**

**110 STRIP**  
**120 STRIP**  
**130 STRIP**

# 110 series STRIP



A strip ceiling system designed for internal and external application, with recessed filler (square edge) & flush filler (rounded edge). Acoustics performance for internal system. Easy accessibility to ceiling void with access key tool. Offered in a wide range of sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

Aluminum: 0.5mm to 2.00mm.

Galvanized Steel: 0.45mm to 1.00mm

+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated

### SIZES

MODULE WIDTHS (mm): 100/150/200

STRIP WIDTHS (mm): 85/135/185

FILLER STRIP HEIGHT: 15mm

PANEL DEPTH: 15mm

### EDGE DETAIL:

RAM 111: Square

RAM 112: Rounded

+ Custom sizes are available upon request

### COATING

Polyester Coating: (5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

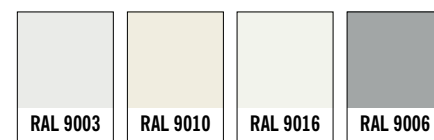
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool slabs** conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS

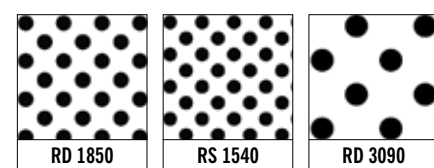


### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



### FIRE PERFORMANCE

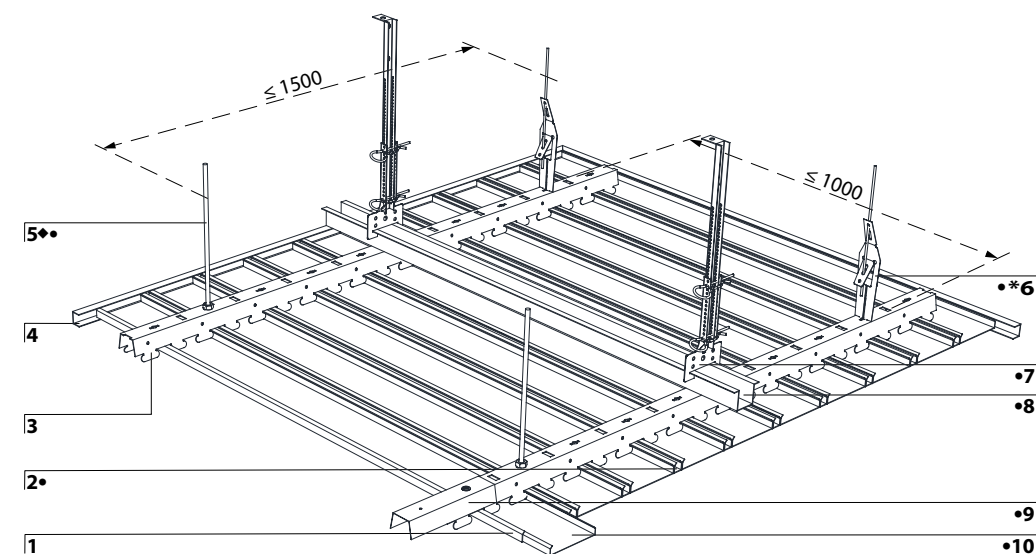
Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 111 STRIP WITH RECESSED FILLER

## RAM 112 STRIP WITH FLUSH FILLER

### ISOMETRIC DETAIL



### COMPONENTS

- 1 Strip
- 2 Filler Strip •
- 3 Main Carrier
- 4 Wall Trim
- 5 Threaded Rod ♦♦
- 6 Adjustment Clip \*•
- 7 Rigid Hanging System •
- 8 Stabilizer •
- 9 C Splice •
- 10 S Splice •
- 11 Wedge •

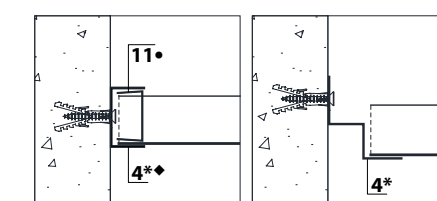
♦ For external application  
\* For internal application  
• Optional

Custom sizes can be offered

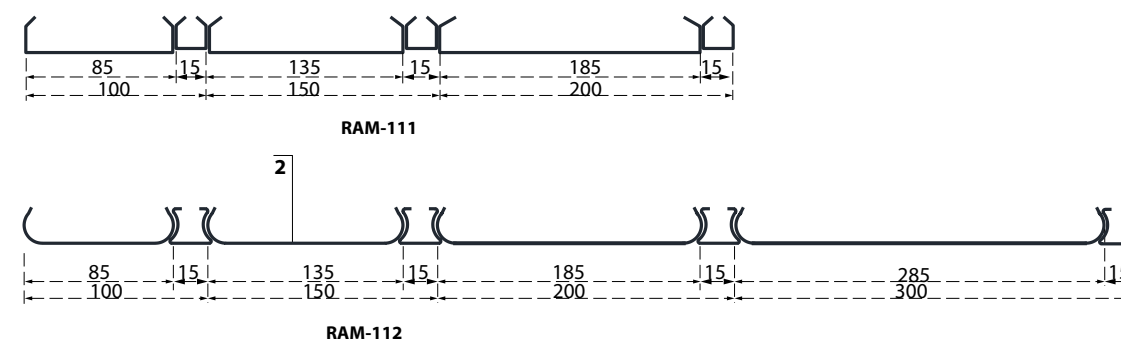
### PANEL FILLER STRIP CONFIGURATION



### PERIMETER OPTIONS



### PANEL STRIP MODULE



# 120 series STRIP

A strip ceiling system designed for internal and external application, with closed groove & butt joint. Acoustics performance for internal system. Easy accessibility by sliding the strip out of the carrier. Progressive access to ceiling void. Offered in a wide range of sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

Aluminum: 0.45mm to 0.8mm.

Galvanized Steel: 0.45mm to 0.7mm

+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated

### SIZES

STRIP WIDTHS (mm):

RAM 121: 100/150/200/300

RAM 122: 200/300

PANEL DEPTH: 15mm

EDGE DETAIL:

RAM 121: Closed Groove (20mm)

RAM 122: Square Butt Joint

+ Custom sizes are available upon request

+ See page 145 for all standard sizes

### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

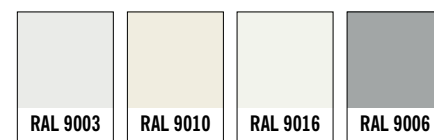
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS

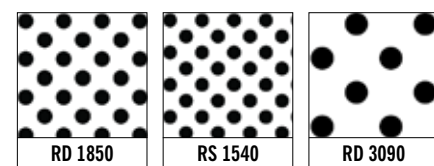


### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



### WIND RESISTANCE

Tested as per ASTM E330-02.



### FIRE PERFORMANCE

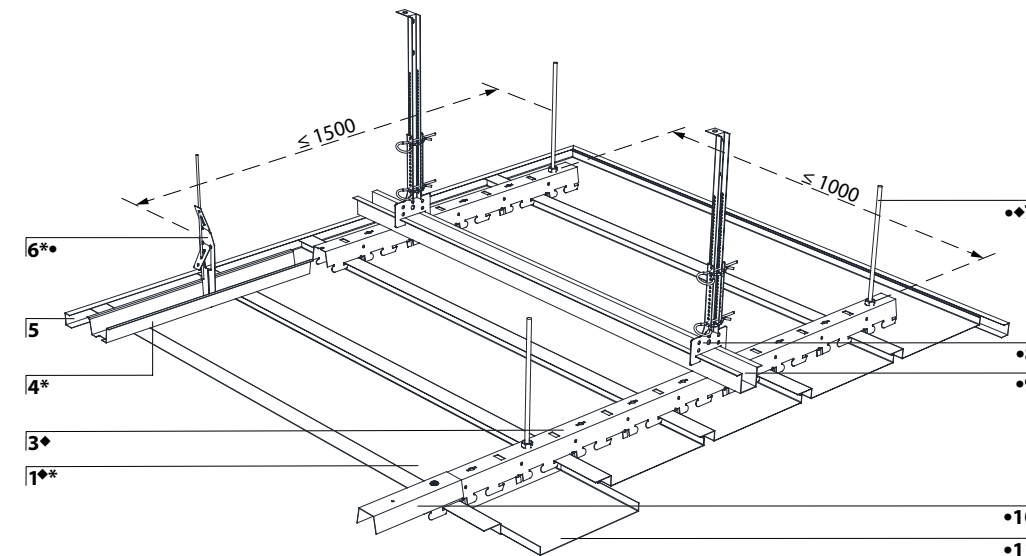
Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997

“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 121 STRIP WITH CLOSED GROOVE RAM 122 STRIP WITH BUTT JOINT

### ISOMETRIC DETAIL

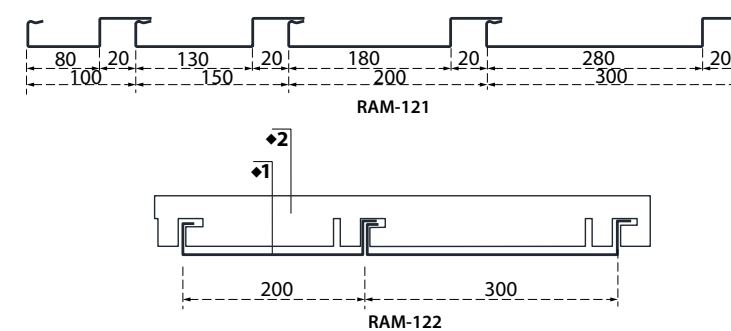


### COMPONENTS

- 1 Strip ♦♦
- 2 RAM-122 Main Carrier ♦
- 3 RAM-121 Main Carrier ♦
- 4 RAM-121 Main Carrier \*
- 5 Wall Trim
- 6 Adjustment Clip \*•
- 7 Threaded Rod ♦♦
- 8 Rigid Hanging System
- 9 Stabilizer •
- 10 S Splice •
- 11 C Splice •
- 12 Wedge •

♦ For external application  
\* For internal application  
• Optional  
Custom sizes can be offered

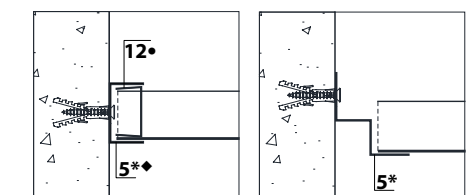
### PANEL STRIP MODULES



### JOINT DETAIL



### PERIMETER OPTIONS



# 130 series STRIP



## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



### WIND RESISTANCE

Tested as per ASTM E330-02.



### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997

“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

A strip ceiling system for internal and external application, with V Joint. Acoustics performance for internal system. Accessibility to ceiling void with access key tool for internal application and progressive access for external application. Offered in a wide range of sizes, colors & finishes.

## FEATURES

### MATERIALS

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

0.7mm to 0.8mm.

+ Custom thickness are available upon request

### SURFACE FINISH

Plain

Perforated

### SIZES

STRIP WIDTH (mm): 200/300/400

PANEL DEPTH: 33mm

EDGE DETAIL: Closed V

+ Custom sizes are available upon request

### HIGH WIND RESISTANCE

Up to 215km/hr

### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

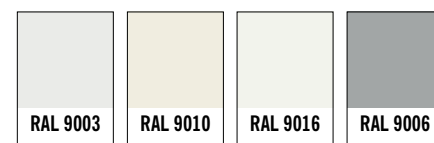
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS

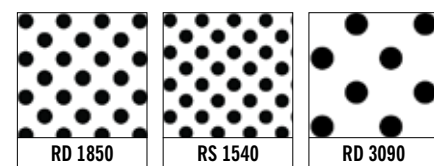


### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

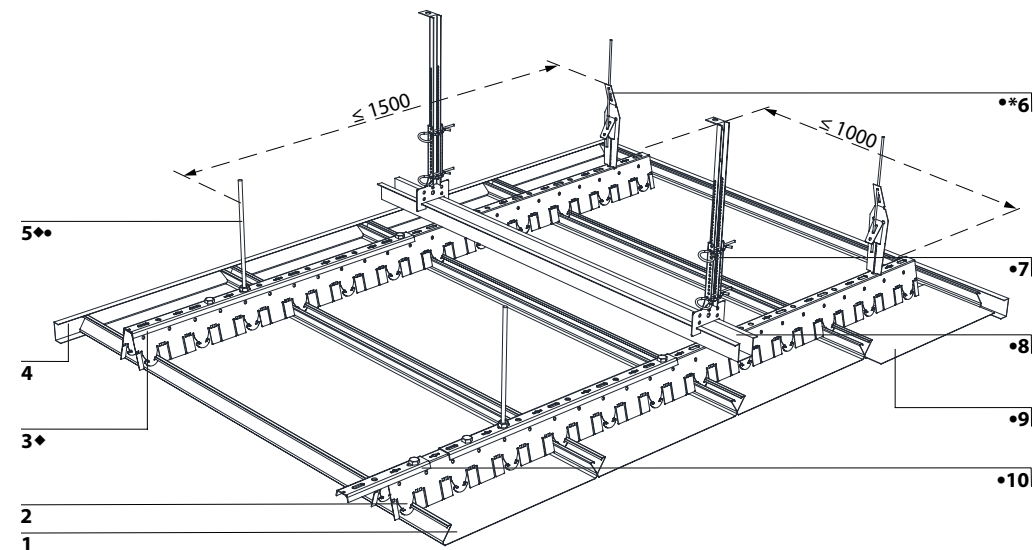
### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## RAM 131 STRIP WITH V JOINT

### ISOMETRIC DETAIL



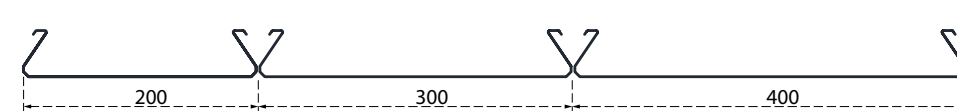
### COMPONENTS

- 1 Strip
- 2 Main Carrier
- 3 Reinforcement Angle ♦
- 4 Wall Trim
- 5 Threaded Rod ♦♦
- 6 Adjustment Clip \*♦
- 7 Rigid Hanging System ♦
- 8 Stabilizer •
- 9 S Splice •
- 10 C Splice •
- 11 Bolt & Nut ♦
- 12 Wedge •

♦ For external application  
\* For internal application  
• Optional

Custom sizes can be offered

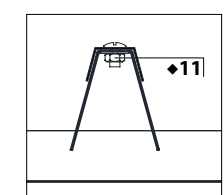
### PANEL STRIP MODULE



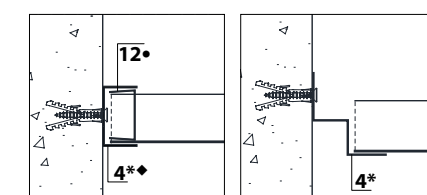
### JOINT DETAIL



### REINFORCEMENT DETAIL



### PERIMETER OPTIONS





CEILING SYSTEMS  
**MODULAR**

**210** CLIP-IN

**220** LAY-IN/LAY-ON

**230** HOOK-ON

**240** SNAP-ON

# 210 series

## CLIP-IN

### DATA / PERFORMANCE



**ACOUSTICS**  
Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



**ANTI BACTERIAL COATING**  
Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



**LIGHT REFLECTANCE (LR)**  
Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



**FIRE PERFORMANCE**  
Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970  
Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

Clip in type ceiling designed for internal application. Clipped in to a concealed suspension system. Fully demountable with downward accessibility / hinge down accessibility using panel removal access key tool. Offered in a wide range of sizes, colors & finishes.

### FEATURES

#### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

#### THICKNESS

Aluminum: 0.5mm to 0.8mm.

Galvanized Steel: 0.45mm to 0.7mm

+ Custom thickness are available upon request

#### SURFACE FINISH

Plain

Perforated

#### COATING

Polyester Coating: (5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

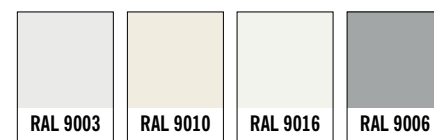
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool slabs** conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

#### COLORS



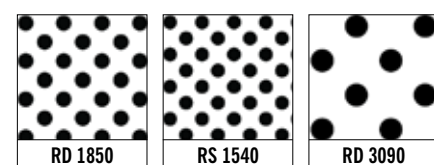
#### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

#### PERFORATION PATTERNS



+ See page 136 for all other pattern options

#### SIZES (mm)

	Panel Joint Details			RAM 211	RAM 212
	Square	5 mm Beveled	3mm Beveled		
300 X 300	•	•		•	
300 X 600	•	•		•	
300 X 1200	•	•		•	
600 X 600	•	•	•	•	•
600 X 1200	•	•		•	•
600 X 1800	•			•	•
1200 X 1200	•			•	•

\*RAM 211 –With tool key access

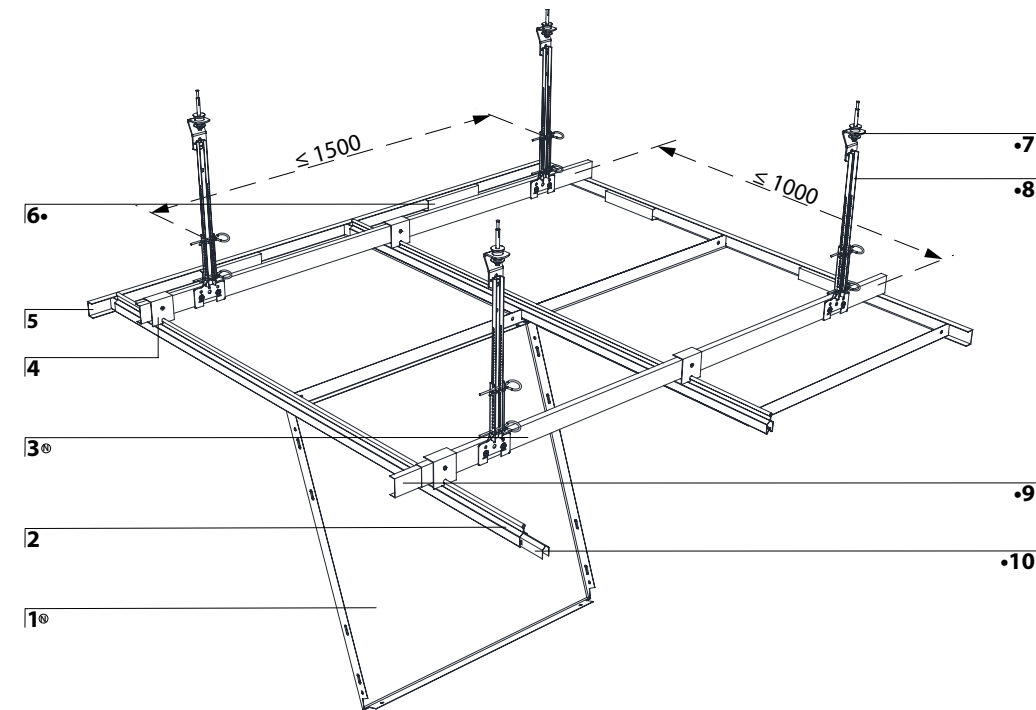
\*RAM 212 –With hinge down access

+ Custom Sizes available upon request

### RAM 211 CLIP-IN

### RAM 212 CLIP-IN/HINGEDOWN

#### ISOMETRIC DETAIL



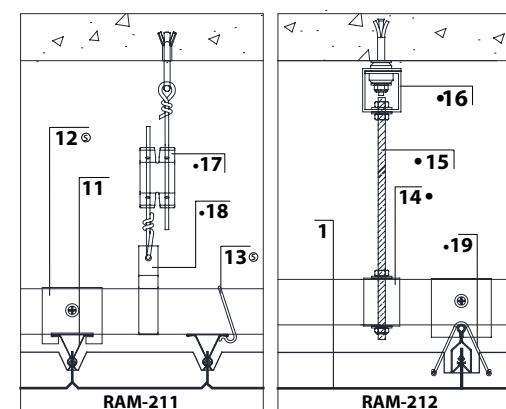
#### COMPONENTS

- 1 Panel
- 2 Narrow Carrier
- 3 Stabilizer
- 4 NC Bracket
- 5 Wall Trim
- 6 Wedge
- 7 Anti-Vibration Clip (RH)
- 8 Rigid Hanging System
- 9 ST Splice
- 10 C Splice
- 11 Spring Tee Carrier
- 12 SC Bracket
- 13 Wire Clip
- 14 U Bracket
- 15 Threaded Rod
- 16 Anti-Vibration Clip (TR)
- 17 Adjustment Clip
- 18 Coupling Clip
- 19 Security Wire



- Optional
- ⊗ For Narrow Carrier
- ⊗ For Spring Tee Carrier
- Custom sizes can be offered

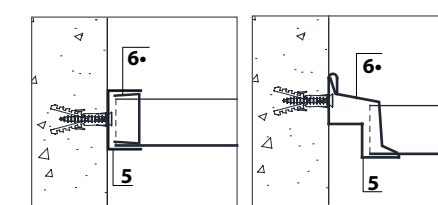
#### OPTIONAL HANGING SOLUTIONS



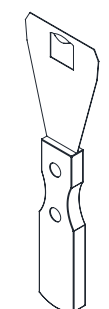
#### JOINT DETAIL



#### PERIMETER OPTIONS



#### ACCESS TOOL





# 220 series

## LAY-IN/LAY-ON

Lay-In type T-Grid ceiling designed for internal application. Modular ceiling laid-in/on to a T-Grid (15mm/24mm) with exposed suspension system & revealed / non revealed / flush panel edges. Lift upwards out from grid to gain ceiling void access. Offered in a wide range of sizes, colors & finishes.

### FEATURES

#### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

#### THICKNESS

Aluminum: 0.5mm to 1.0mm

Galvanized Steel: 0.5mm to 0.8mm

+ Custom thickness are available upon request

#### SURFACE FINISH

Plain  
Perforated  
Decorative Patterns

#### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

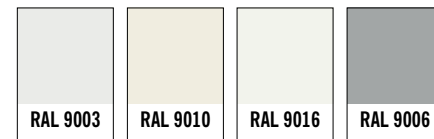
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

#### COLORS



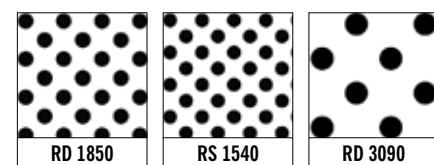
#### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

#### PERFORATION PATTERNS



+ See page 136 for all other pattern options

#### SIZES (mm)

Panel width	RAM 221	RAM 222	RAM 223
300 X 600	•		•
300 X 1200	•		•
600 X 600	•	•	•
600 X 1200	•		•
600 X 1800	•		•
1200 X 1200	•		•

+ Custom Sizes available upon request

### DATA / PERFORMANCE



#### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



#### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



#### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



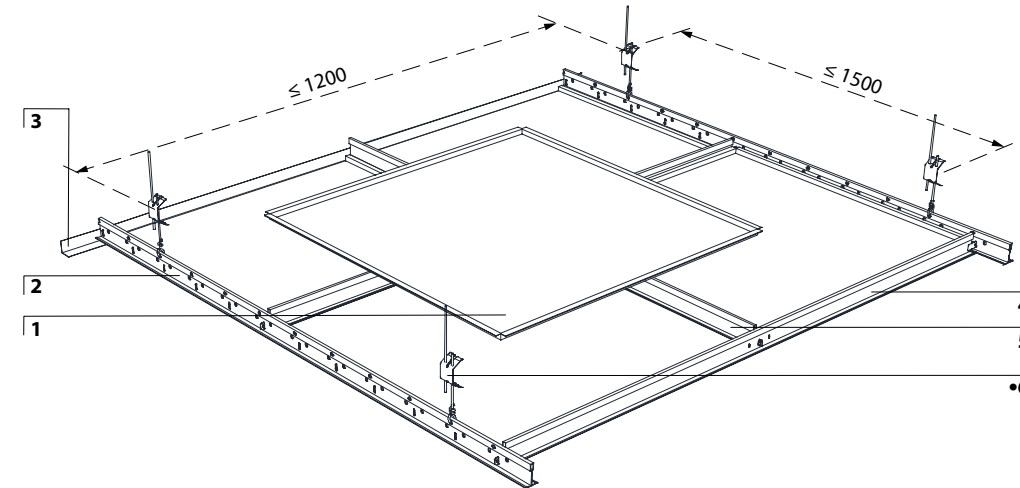
#### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 221 LAY-IN RAM 222 GT15 RAM 223 LAY-ON

### ISOMETRIC DETAIL



#### COMPONENTS

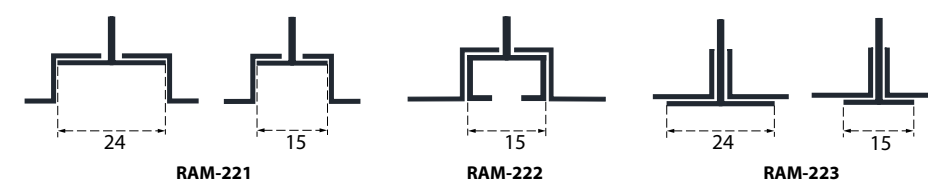
- 1 Panel
- 2 Main Carrier
- 3 Wall Trim
- 4 Primary Cross Tee 1200
- 5 Secondary Cross Tee 600
- 6 Adjustment Clip •
- 7 DS Bracket •
- 8 Threaded Rod •
- 9 Anti-Vibration Clip (TR) •
- 10 Wedge •

Luminous Panel •

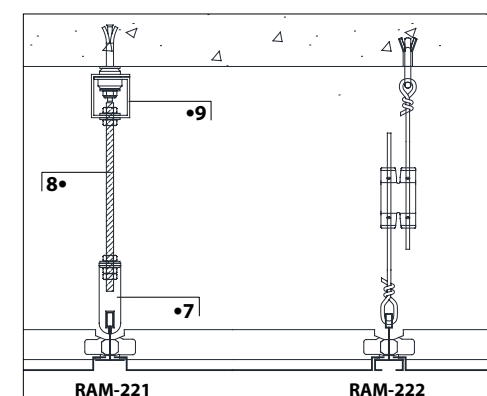
• Optional

Custom sizes can be offered

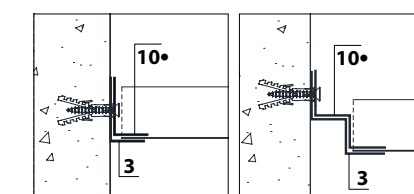
### PANEL-CARRIER JOINT DETAILS



### OPTIONAL HANGING SOLUTIONS



### PERIMETER OPTIONS



# 230 series HOOK-ON



Hook type ceiling designed for internal or external application. Modular ceiling panel laid on concealed 'J' profile. Lift upwards out and drop down to gain ceiling void access. Offered in wide range of sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

Aluminum: 0.6mm to 3.0mm.

Galvanized Steel: 0.5mm to 2.0mm.

+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated  
Decorative Patterns

### SIZES

SINGLE OR DOUBLE SKIN PANELS (mm)

WIDTH: 200 to 1000

LENGTH: 500 to 3000

+ Custom sizes are available upon request

### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

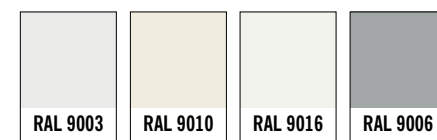
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS



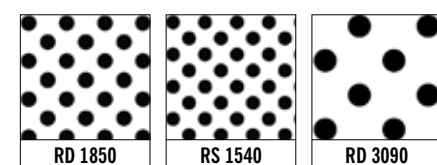
### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



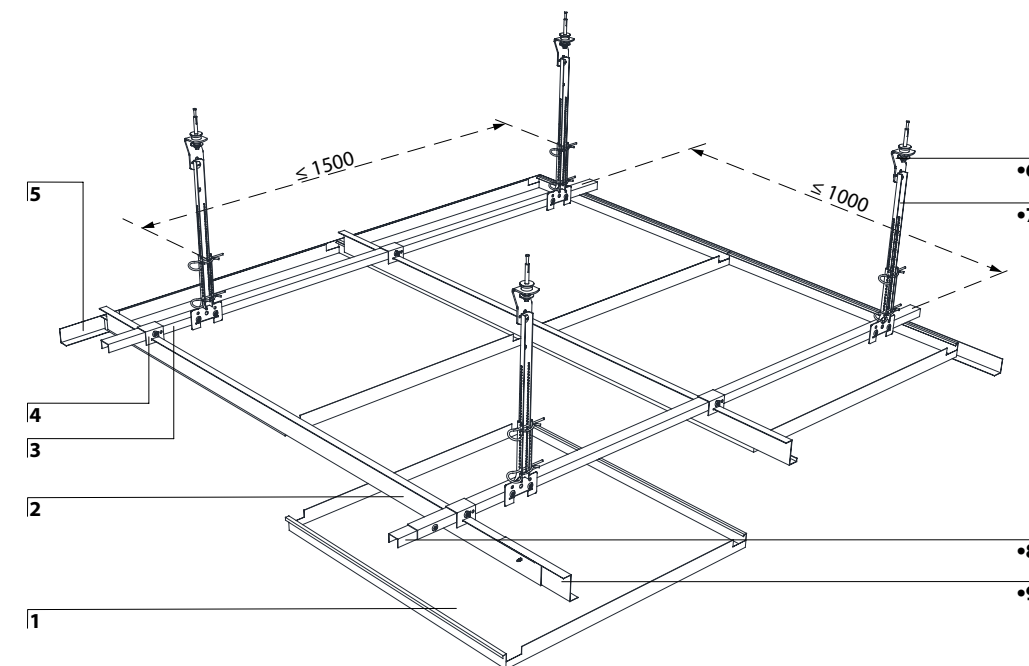
### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
"Non-Combustible" Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

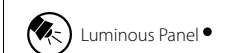
## RAM 231 HOOK-ON

### ISOMETRIC DETAIL



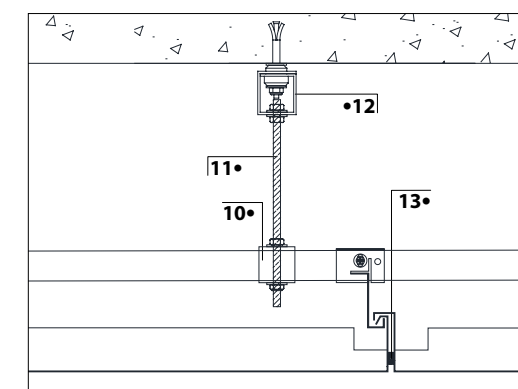
### COMPONENTS

- 1 Panel
- 2 Z Carrier
- 3 Stabilizer
- 4 ZC Bracket
- 5 Wall Trim
- 6 Anti-Vibration Clip (RH)
- 7 Rigid Hanging System
- 8 ST Splice
- 9 C Splice
- 10 U Bucket
- 11 Threaded Rod
- 12 Anti-Vibration Clip (TR)
- 13 Self-Adhesive Tape
- 14 Wedge



• Optional  
Custom sizes can be offered

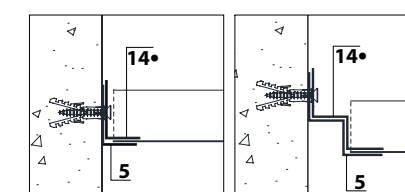
### HANGING SOLUTION



### JOINT DETAIL



### PERIMETER OPTIONS



# 240 series SNAP-ON



Snap-On type ceiling for internal application. Snap-On can lock the panel in to a T Grid suspension system. Fully demountable with downward accessibility by pushing the snap lock within the panel using a key tool. Offered in a wide range of sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

Aluminum: 0.5mm to 0.7mm.

Galvanized Steel: 0.45mm to 0.6mm.

+ Custom thickness are available upon request

### SURFACE FINISH

Plain

Perforated

Decorative Patterns

### SIZES (mm)

Panel width	RAM 241
300 x 600	•
300 x 1 200	•
300 x 600	•
600 x 1200	•
600 x 1800	•
1200 x 1200	•

+ Custom Sizes available upon request

### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

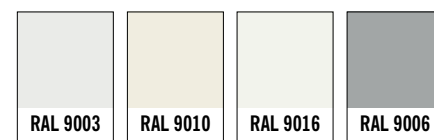
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS



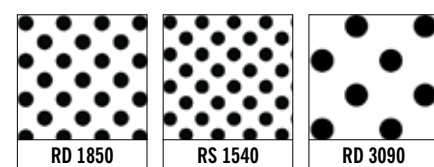
### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



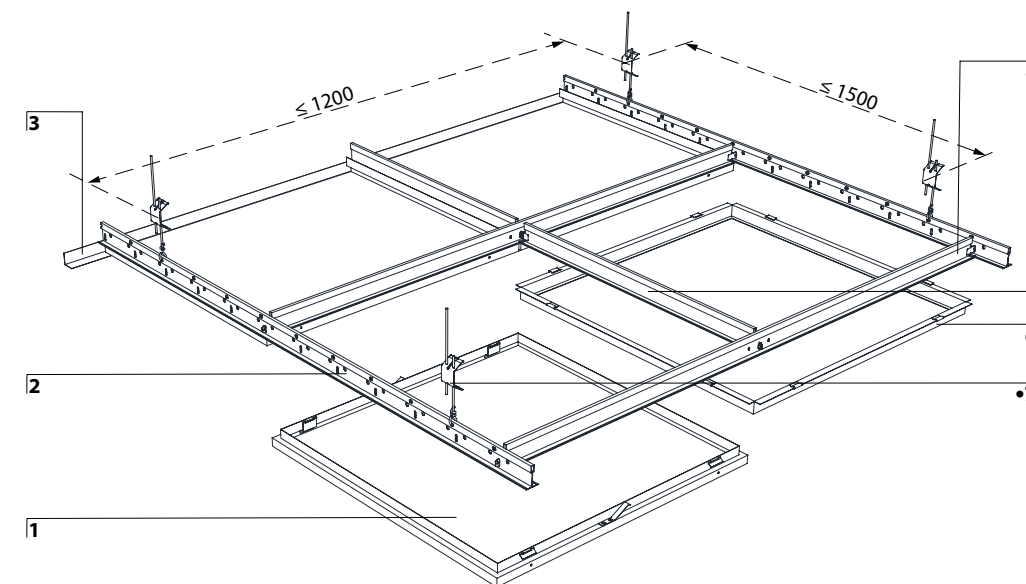
### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 241 SNAP-ON

### ISOMETRIC DETAIL



### COMPONENTS

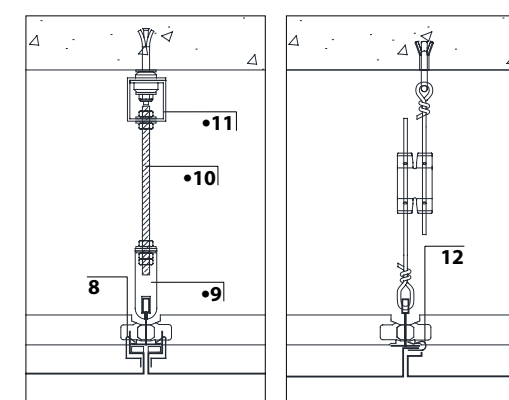
- 1 Panel
- 2 Main Carrier
- 3 Wall Trim
- 4 Primary Cross Tee 1200
- 5 Secondary Cross Tee 600
- 6 Light Tray
- 7 Adjustment Clip •
- 8 Snap-in Clip
- 9 Direction Suspension Bracket •
- 10 Threaded Rod •
- 11 Anti-Vibration Clip (TR) •
- 12 Light Tray Clip
- 13 Wedge •

Luminous Panel •

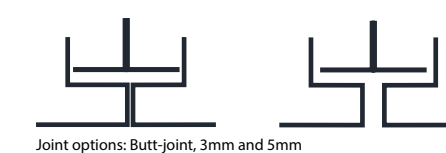
• Optional

Custom sizes can be offered

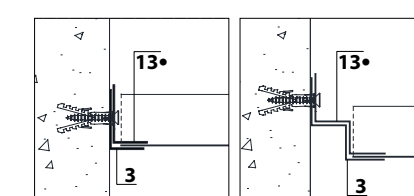
### OPTIONAL HANGING SOLUTIONS



### PANEL-CARRIER JOINT DETAILS



### PERIMETER OPTIONS





CEILING SYSTEMS

## OPEN GRID

**310** OPEN CELL CONTINUOUS

**320** OPEN CELL LAY-ON

**330** OPEN CELL TORSION

CEILING SYSTEMS  
OPEN GRID

# 310 series

OPEN CELL CONTINUOUS



An open cell continuous type ceiling. Offered in a versatile range of patterns. Special boxes can be provided for MEP Services. Manufactured with roll formed Aluminum U Profiles. Panels are built with upper and lower blades that dismantle to lend easy access to ceiling void. Offered in a wide range of sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

### THICKNESS

Aluminum: 0.4mm to 0.8mm  
+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated

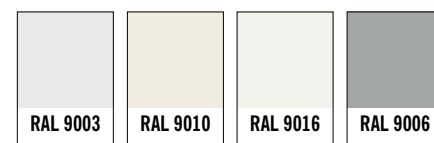
### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))  
Polyester Powder Coating: (70μ -80μ)  
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.  
**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS

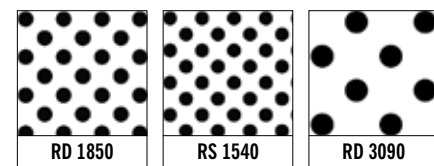


### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

### SIZES (mm)

	Cell size	Blade width	Blade height
RAM 311	50/60/75/86/100/120/150/200/300	10	40/50/55
RAM 312	75/86/100/120/150/200/300	20	50
RAM 313	75/86/100/120/150/200/300	12	42
RAM 314	50/60/75/86/100/120/150/200/300	10/20	40/50/55

+ Custom Sizes available upon request

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

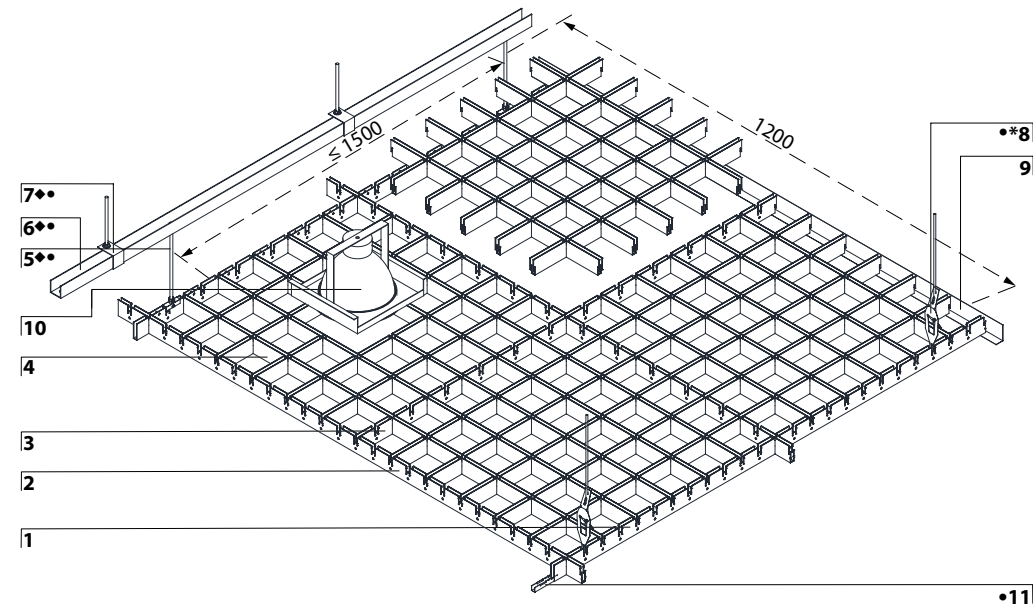
## RAM 311 SQUARE/RECTANGULAR (10MM WIDTH)

## RAM 312 SQUARE/RECTANGULAR (20MM WIDTH)

## RAM 313 PYRAMID (12MM WIDTH)

## RAM 314 MIX

### ISOMETRIC DETAIL

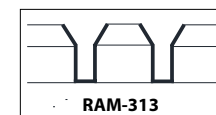
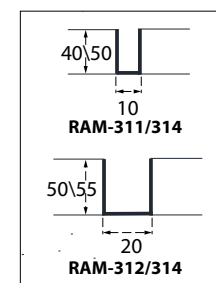


### COMPONENTS

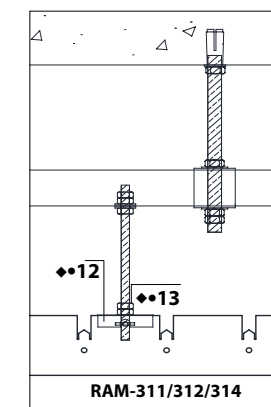
- 1 Main Carrier
- 2 Cross Bar 120
- 3 Cross Bar 60
- 4 Lower & Upper Blade
- 5 Threaded Rod ♦♦
- 6 U Stabilizer ♦♦
- 7 ST Bracket ♦♦
- 8 Adjustment Clip \*♦
- 9 Wall Trim
- 10 Light Box
- 11 C Splice •
- 12 MC Bracket ♦♦
- 12 MC Bracket Nut ♦♦

♦ For external application  
\* For internal application  
• Optional  
Custom sizes can be offered

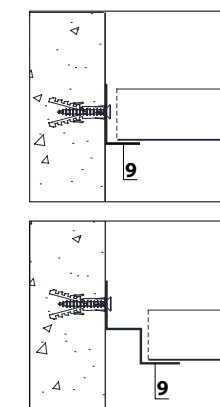
### PANEL DESIGN PATTERN



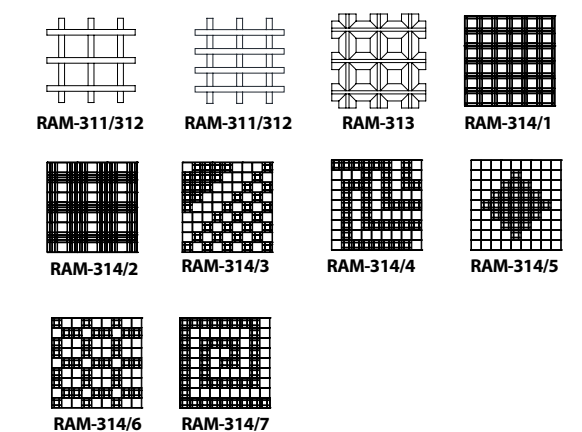
### OPTIONAL HANGING SOLUTIONS



### PERIMETER OPTIONS



### CELL OPTIONS



CEILING SYSTEMS  
OPEN GRID

# 320 series

## OPEN CELL LAY-ON



### DATA / PERFORMANCE



**ACOUSTICS**  
Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



**ANTI BACTERIAL COATING**  
Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



**LIGHT REFLECTANCE (LR)**  
Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



**FIRE PERFORMANCE**  
Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970  
Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

Open cell Lay On T-Grid (24mm) suspension type ceiling. Offered in a variety of cell sizes. Special boxes can be provided for MEP Services. Manufactured with roll formed Aluminum U Profiles. Panels are build with upper and lower blades that dismantle to lend easy access to ceiling void. Offered in a wide range of sizes, colors & finishes.

### FEATURES

#### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

#### THICKNESS

0.45mm to 0.7mm.

+ Custom thickness are available upon request

#### SURFACE FINISH

Plain  
Perforated

#### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

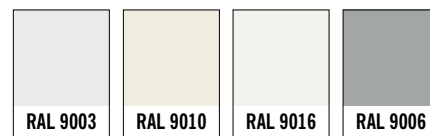
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

#### COLORS

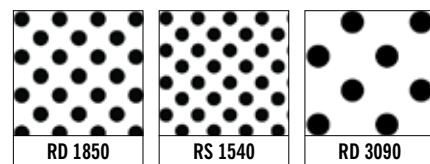


#### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

#### PERFORATION PATTERNS



+ See page 136 for all other pattern options

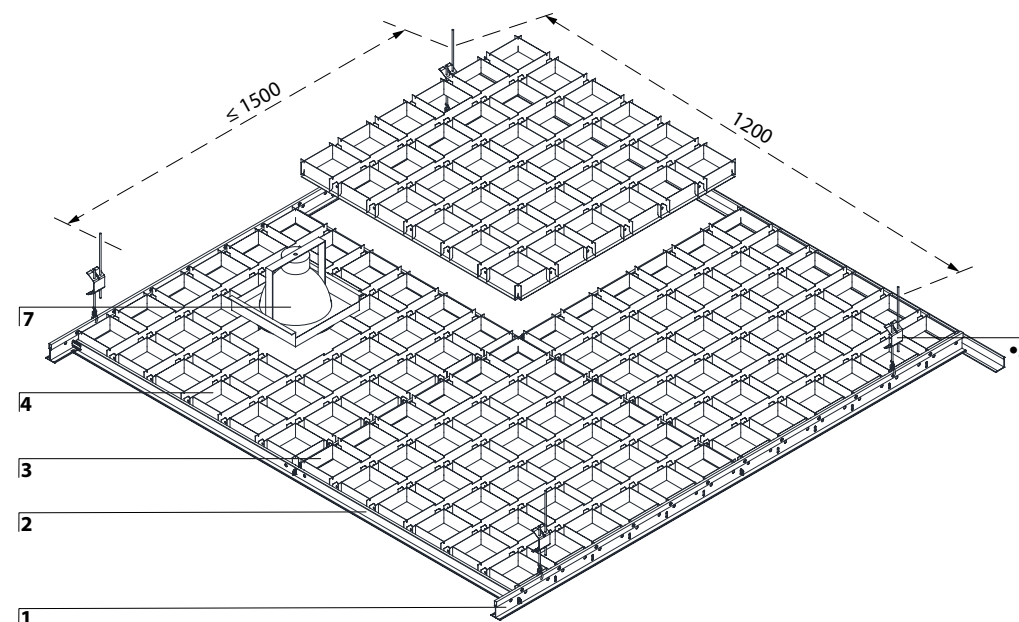
#### SIZES (mm)

	Cell size	Blade width	Blade height
RAM 321	75/100/120/150/200/300	24	33/50
RAM 322	100 (65 x 35)	0.70	50

+ Custom Sizes available upon request

## RAM 321 SQUARE/RECTANGULAR (24MM WIDTH) RAM 322 CUBE

### ISOMETRIC DETAIL

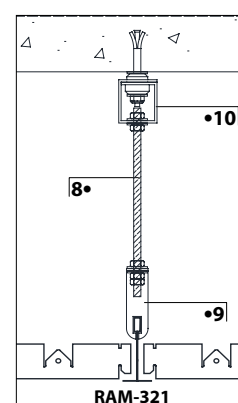


#### COMPONENTS

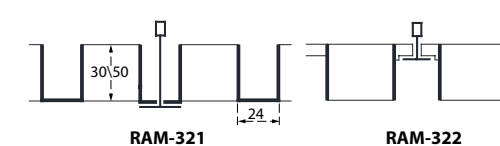
- 1 RAM 321/322 Main Carrier
- 2 Primary Cross Tee 1200
- 3 Secondary Cross Tee 600
- 4 RAM 321/322 Lower & Upper Blade
- 5 Adjustment Clip •
- 6 Wall Trim
- 7 Light Box
- 8 Threaded Rod •
- 9 Direct Hanging Bracket •
- 10 Anti-Vibration Clip (TR) •

• Optional  
Custom sizes can be offered

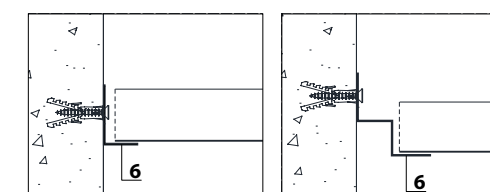
### OPTIONAL HANGING SOLUTIONS



### JOINT DETAIL



### PERIMETER OPTIONS



CEILING SYSTEMS  
OPEN GRID

# 330 series

## OPEN CELL TORSION

Open cell for high ceiling types. Offered in a variety of cell sizes and a versatile range of patterns. Special boxes can be provided for MEP Services. Ideal for exhibition centers, airports, car showrooms, & commercial establishments. Offered in a wide range of sizes, colors & finishes.

### FEATURES

#### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

#### THICKNESS

1.0 mm.  
+ Custom thickness are available upon request

#### SURFACE FINISH

Plain  
Perforated

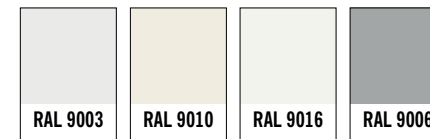
#### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))  
Polyester Powder Coating: (70μ -80μ)  
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.  
**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

#### COLORS



#### SPECIAL FINISHES



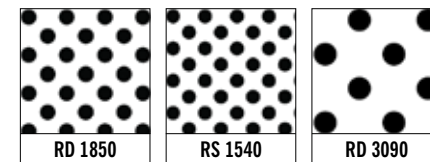
+ See page 144 for additional colors & special finishes available

#### SIZES (mm)

	Cell size	Blade width	Blade height
RAM 331	40/75/100/120/150/200/300	0.70-1.00	40-200

+ Custom Sizes available upon request

#### PERFORATION PATTERNS



+ See page 136 for all other pattern options

### DATA / PERFORMANCE



#### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



#### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



#### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



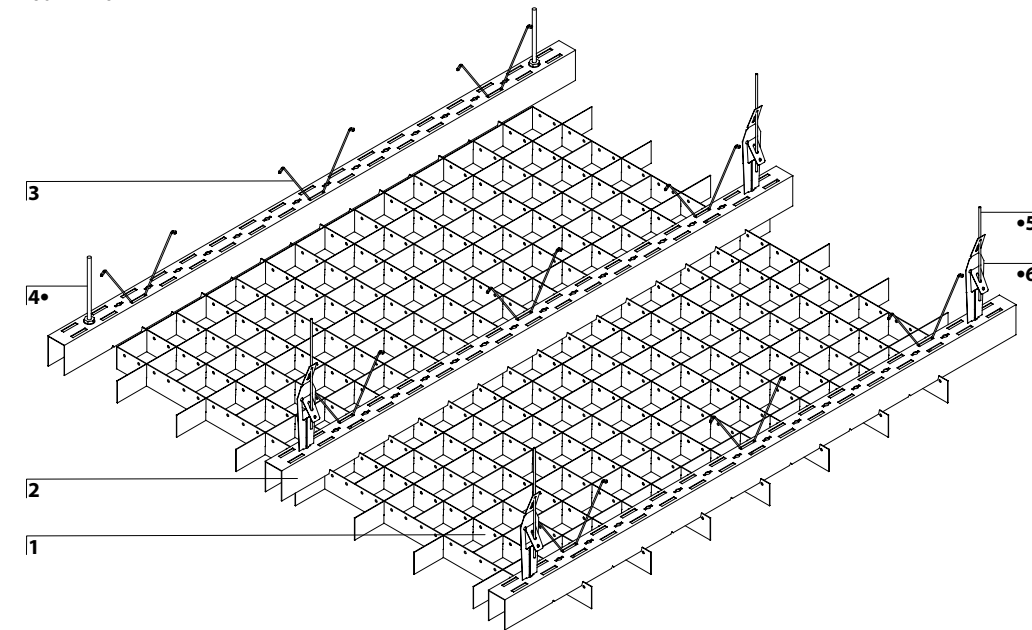
#### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 331 SQUARE/RECTANGULAR DIACELL

### ISOMETRIC DETAIL

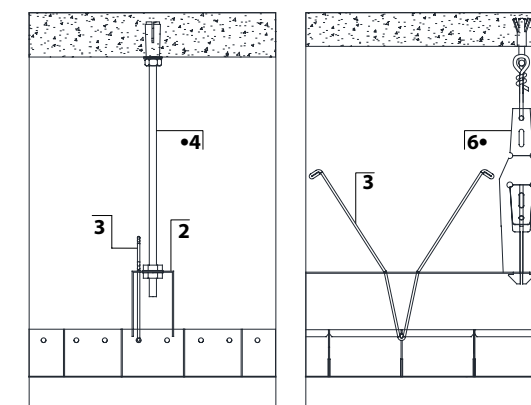


#### COMPONENTS

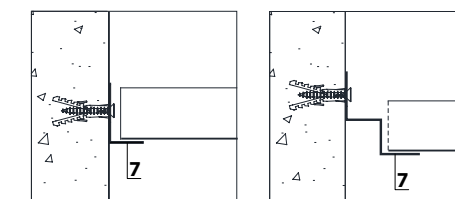
- 1 Upper & Lower Blade
- 2 Carrier
- 3 Torsion Spring Wire
- 4 Threaded Rod
- 5 Wire Hanger
- 6 Adjustment Clip
- 7 Wall Trim

• Optional  
Custom sizes can be offered

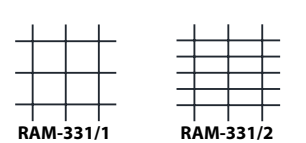
### SECTION DETAIL



### PERIMETER OPTIONS



### CELL OPTIONS





CEILING SYSTEMS

## CORRIDOR SOLUTIONS

**410** SELF SUPPORTED HOOK-ON

**420** SELF SUPPORTED LAY-IN

**430** SELF SUPPORTED CLIP-IN

**440** SELF SUPPORTED SLIDE



# 410 series

## SELF SUPPORTED HOOK-ON



A hook-on type self-supported ceiling for corridor solutions. Modular ceiling panels are laid on concealed 'J' profile. Can be removed from the ceiling and easily restored. Stays hinged to one side of the corridor for damage protection. Easy accessibility to ceiling void without any intermediate support. Offered in a wide range of sizes, colors & finishes.

### FEATURES

#### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

#### THICKNESS

Aluminum or Galvanized Steel:  
0.5mm to 1.0mm.

+ Custom thickness are available upon request

#### SURFACE FINISH

Plain  
Perforated  
Decorative Patterns

#### SIZE (mm)

**WIDTH**  
300 to 700  
**LENGTH**  
900 to 3000  
**EDGE**  
Square

+ Custom sizes are available upon request

#### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

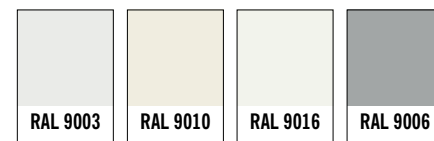
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

#### COLORS



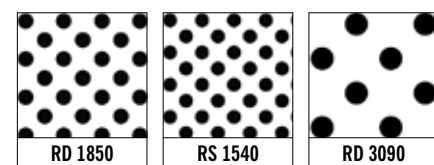
#### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

#### PERFORATION PATTERNS



+ See page 136 for all other pattern options

### DATA / PERFORMANCE



#### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



#### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



#### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



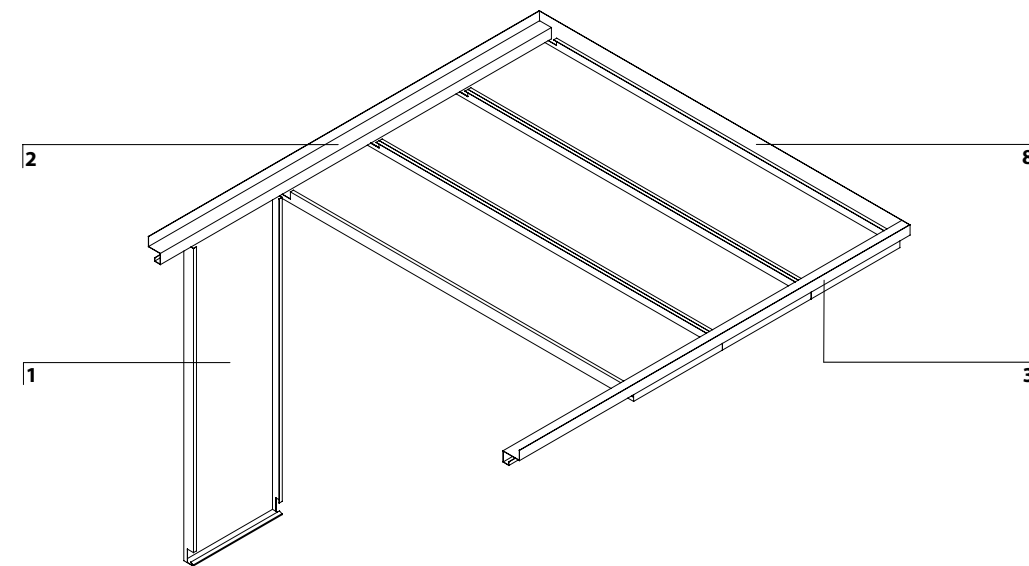
#### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
"Non-Combustible" Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

### RAM 411 HOOK-ON

#### ISOMETRIC DETAIL



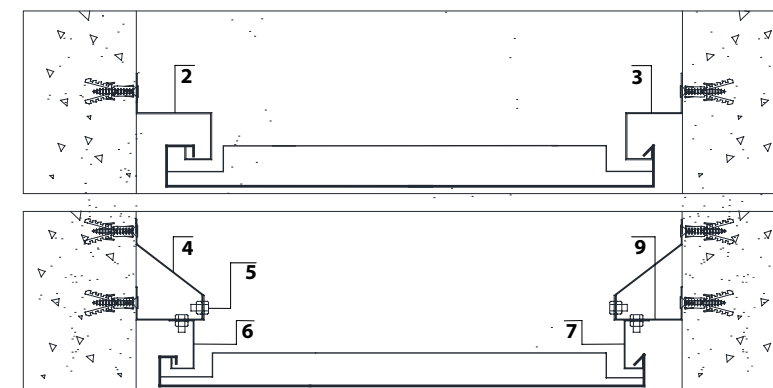
#### COMPONENTS

- 1 Panel
- 2 JU Profile (Fix)
- 3 JV Profile (Fix)
- 4 Z Profile Support Bracket
- 5 Bolt & Nut
- 6 JU Profile (Adjustable)
- 7 JV Profile (Adjustable)
- 8 Shadow Cover Profile
- 9 U Channel Profile

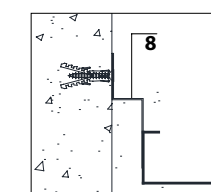
Luminous Panel •

• Optional  
Custom sizes can be offered

#### CARRIER DETAILS



#### PERIMETER OPTIONS



#### PANEL JOINTS DETAIL



# 420 series

## SELF SUPPORTED LAY-IN

A lay-in type self-supported ceiling for corridor solutions. No suspension is required other than the “L” or “W” trim at the walls. An ideal solution for congested areas with ducts & other MEP services, in areas of limited ceiling drop. Fully de-mountable with easy accessibility to ceiling void without any intermediate support. Panels overlap at the long side. Offered in a wide range of sizes, colors & finishes.

### FEATURES

#### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

#### THICKNESS

Aluminum or Galvanized Steel:  
0.5mm to 0.8mm

+ Custom thickness are available upon request

#### SURFACE FINISH

Plain  
Perforated  
Decorative Patterns

#### SIZE (mm)

**WIDTH**  
200 to 700  
**LENGTH**  
900 to 3000  
**EDGE**  
Square

+ Custom sizes are available upon request

#### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

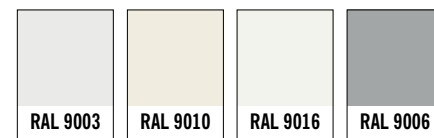
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

#### COLORS



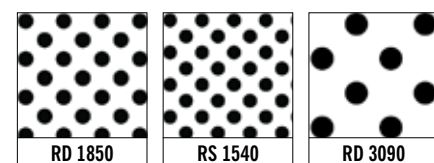
#### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

#### PERFORATION PATTERNS



+ See page 136 for all other pattern options

### DATA / PERFORMANCE



#### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



#### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



#### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



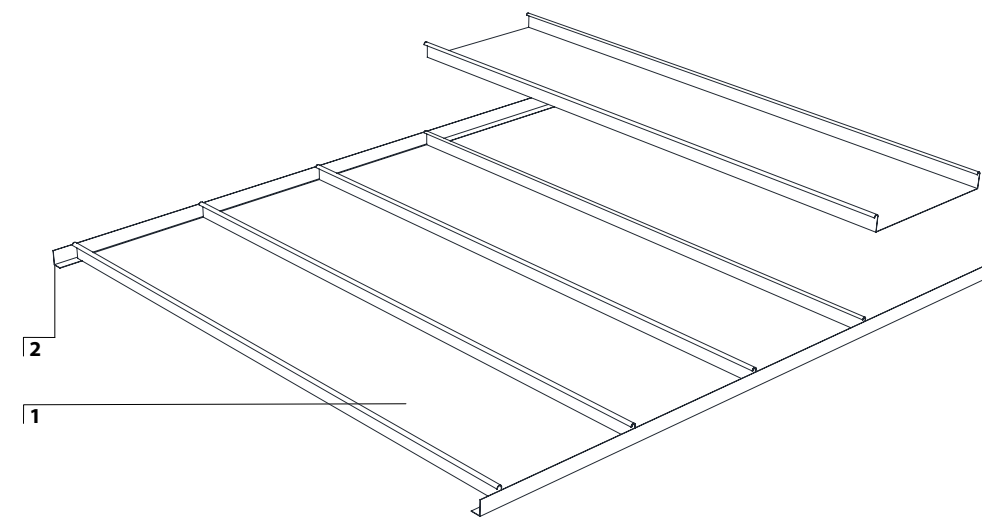
#### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

### RAM 421 LAY-IN

#### ISOMETRIC DETAIL



#### COMPONENTS

- 1 Panel
- 2 Wall Trim
- 3 T-Joint Profile

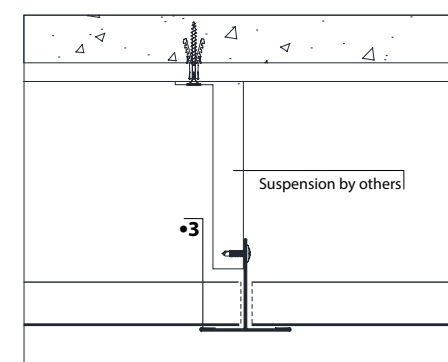


Luminous Panel

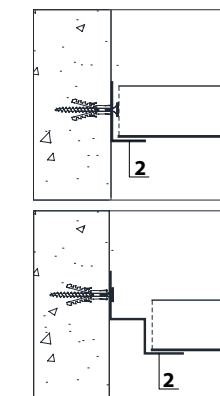
• Optional

Custom sizes can be offered

#### T-JOINT SECTIONAL DETAIL



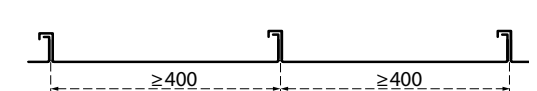
#### PERIMETER OPTIONS



#### JOINT DETAIL



#### PANEL STRIP MODULES



# 430 series

## SELF SUPPORTED CLIP-IN



A clip-in type self-supported ceiling for corridor solutions. Modular ceiling panels clipped into concealed 'Z' profile. Fully demountable with downward accessibility using panel removal access key tool. Easy accessibility to ceiling void without any intermediate support. Offered in a wide range of sizes, colors & finishes.

### FEATURES

#### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

#### THICKNESS

Aluminum or Galvanized Steel:  
0.5mm to 0.8mm

+ Custom thickness are available upon request

#### SURFACE FINISH

Plain  
Perforated  
Decorative Patterns

#### SIZE (mm)

WIDTH  
300 to 700  
LENGTH  
900 to 3000  
EDGE  
Square

+ Custom sizes are available upon request

#### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))  
Polyester Powder Coating: (70μ -80μ)

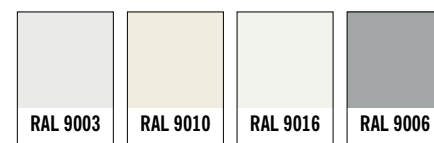
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

#### COLORS



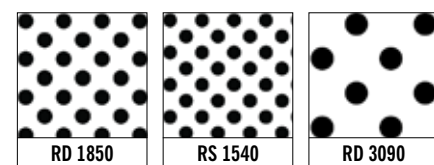
#### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

#### PERFORATION PATTERNS



+ See page 136 for all other pattern options

### DATA / PERFORMANCE



#### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



#### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



#### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



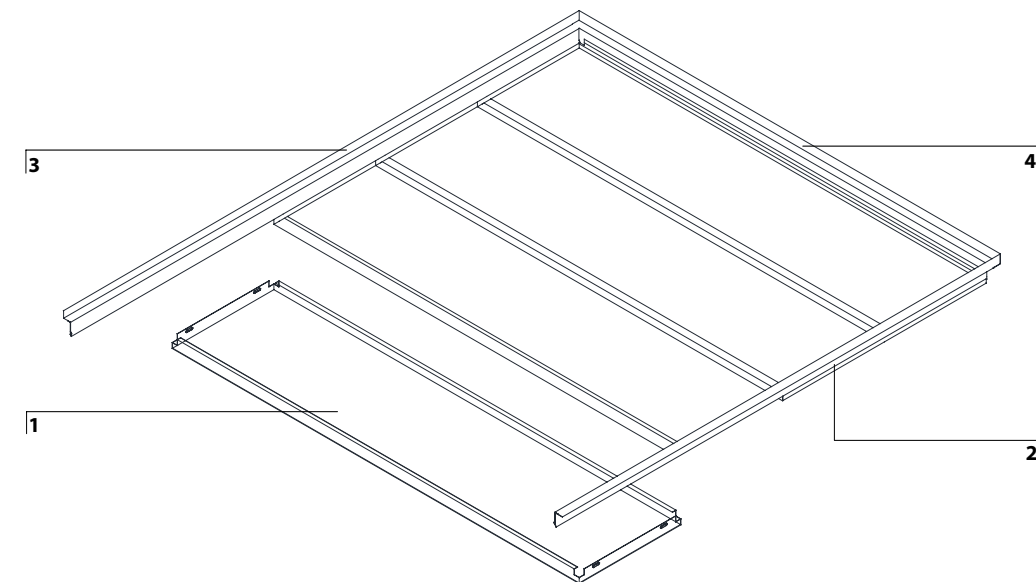
#### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
"Non-Combustible" Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

### RAM 431 CLIP-IN

#### ISOMETRIC DETAIL



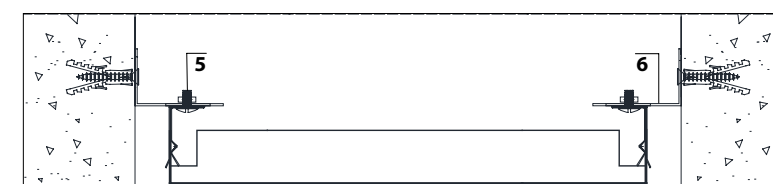
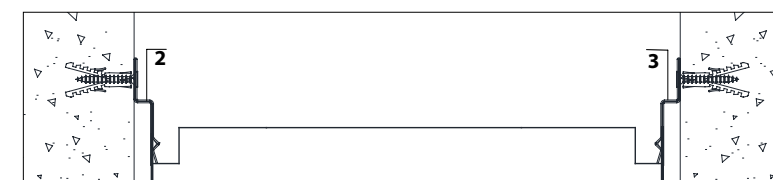
#### COMPONENTS

- 1 Panel
- 2 ZL Profile (Adjustable)
- 3 ZL Profile (Adjustable)
- 4 Shadow Cover Profile
- 5 Bolt & Nut
- 6 L Profile

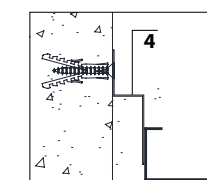
Luminous Panel •

• Optional  
Custom sizes can be offered

#### CARRIER DETAILS



#### PERIMETER OPTIONS



#### PANEL JOINTS DETAIL



# 440 series

## SELF SUPPORTED SLIDE

A hinge down type self-supported ceiling for corridor solutions. Modular panel system with easy accessibility to ceiling void without any intermediate support. Panels can slide to any convenient position. Offered in a wide range of sizes, colors & finishes.

### FEATURES

#### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

#### THICKNESS

Aluminum or Galvanized Steel:  
0.5mm to 0.8mm.

+ Custom thickness are available upon request

#### SURFACE FINISH

Plain  
Perforated  
Decorative Patterns

#### SIZE (mm)

**WIDTH**  
300 to 700  
**LENGTH**  
900 to 3000  
**EDGE**  
Square

+ Custom sizes are available upon request

#### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

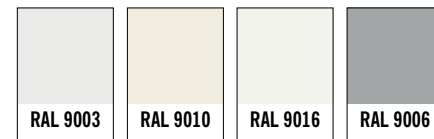
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

#### COLORS



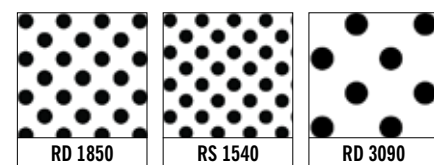
#### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

#### PERFORATION PATTERNS



+ See page 136 for all other pattern options

### DATA / PERFORMANCE



#### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



#### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



#### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



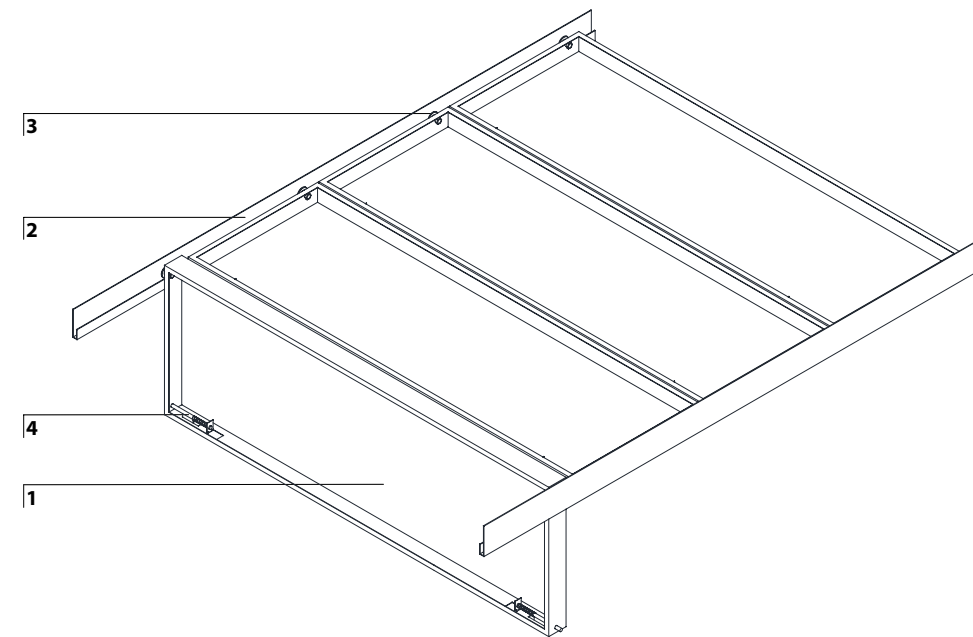
#### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

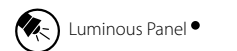
### RAM 441 RAIL-SLIDE

#### ISOMETRIC DETAIL



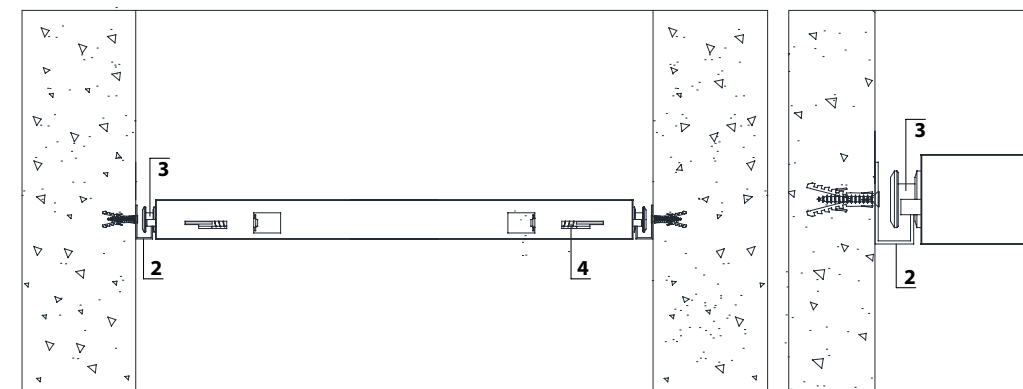
#### COMPONENTS

- 1 Panel
- 2 L Profile
- 3 Sliding Wheels
- 4 Locking Latches

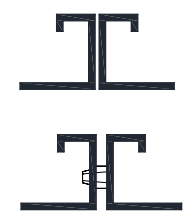


- Optional
- Custom sizes can be offered

#### SECTION DETAIL

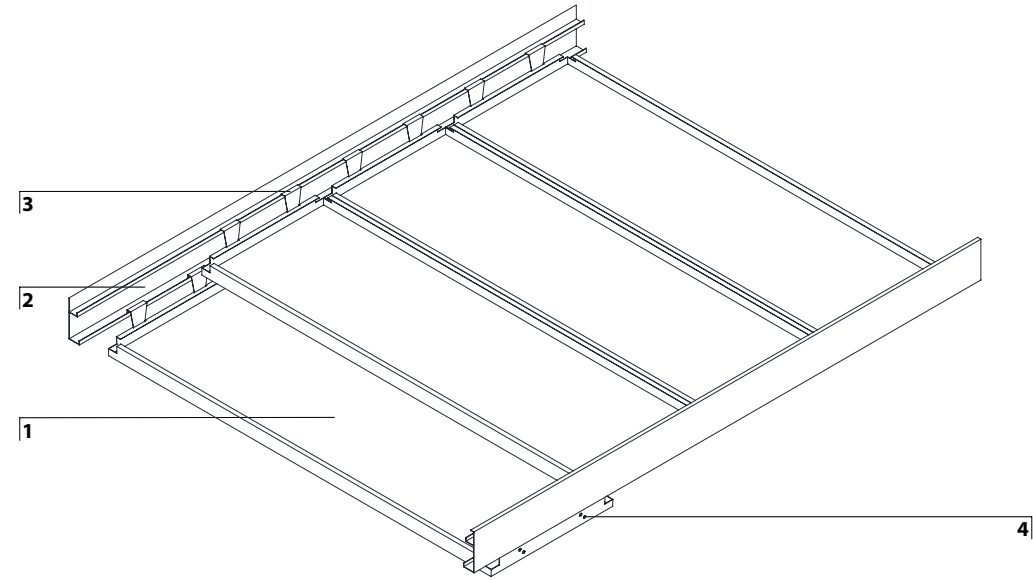


#### PANEL JOINTS DETAIL



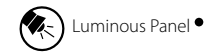
# RAM 442 STEP-SLIDE

ISOMETRIC DETAIL



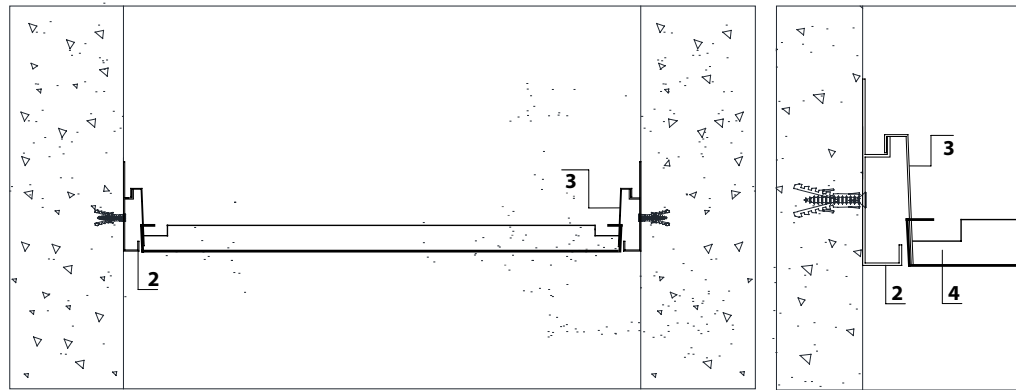
**COMPONENTS**

- 1 Panel
- 2 Step Hook Profile Profile
- 3 Hook Profile
- 4 Blind Rivet



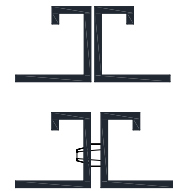
• Optional  
Custom sizes can be offered

SECTION DETAIL



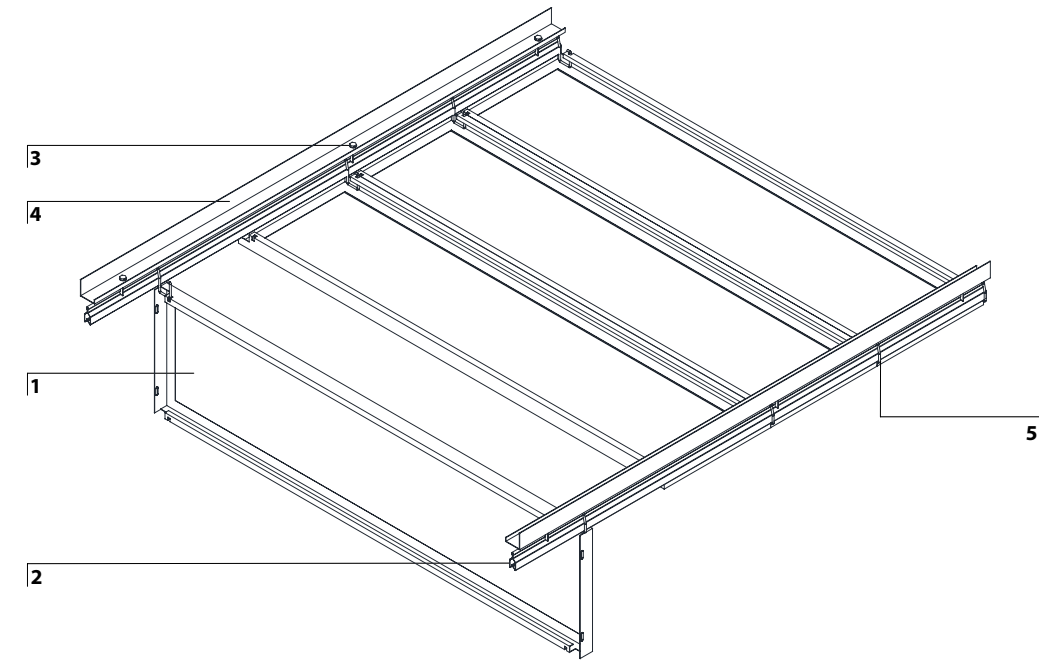
All dimensions are in mm.

PANEL JOINTS DETAIL



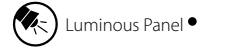
# RAM 443 HOOK-SLIDE

ISOMETRIC DETAIL



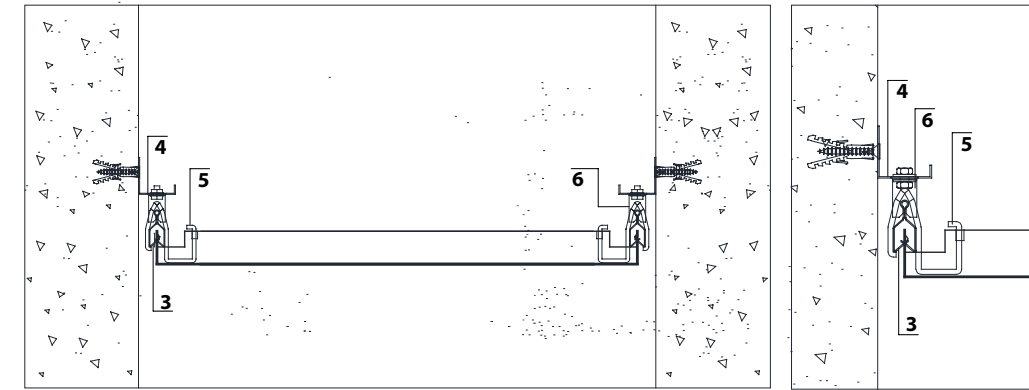
**COMPONENTS**

- 1 Panel
- 2 Narrow Main Carrier
- 3 HBolt & Nut
- 4 L Profile
- 5 Hinge Clip
- 6 Carrier Bracket



• Optional  
Custom sizes can be offered

SECTION DETAIL



PANEL JOINTS DETAIL



CEILING SYSTEMS

## BEAMGRID

**510** CONTINUOUS

**520** THREADED/FLAT

**530** HOOK-ON

# 510 series CONTINUOUS

This continuous beam profile ceiling is an ideal solution for integrating ceiling with demountable partition. Available with sound attenuation panels. Can be manufactured in single & double skin. The beam profile can be used to integrate light fittings, AC grills, and other MEP services. Offered as recess, flush, or reveled edge with the panel. Panels are laid on the beam profile, which can be produced in multiple sizes in order to avoid cutting the panels. Lifts upwards for access to ceiling void. Offered in a wide range of sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

**PANELS** (mm)  
Aluminum or Galvanized Steel:  
0.5 to 1.0

**BEAMS** (mm)  
Galvanized Steel:  
0.5 to 2.0

+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated  
Decorative Patterns

### SIZES

**TYPE**  
Continuous  
Inverted

**PANEL JOINT DETAIL**  
Square

**BEAM WIDTH** (mm): 100-300

**DIMENSIONS** (mm)  
600x600/750x750/900x900/1000x1000/  
1200x1200/1500x1500

+ Custom sizes are available upon request

### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

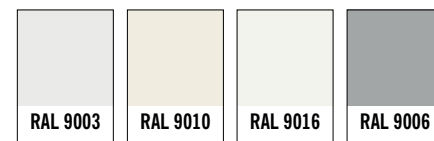
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS



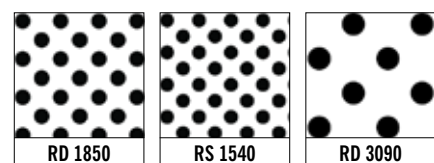
### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



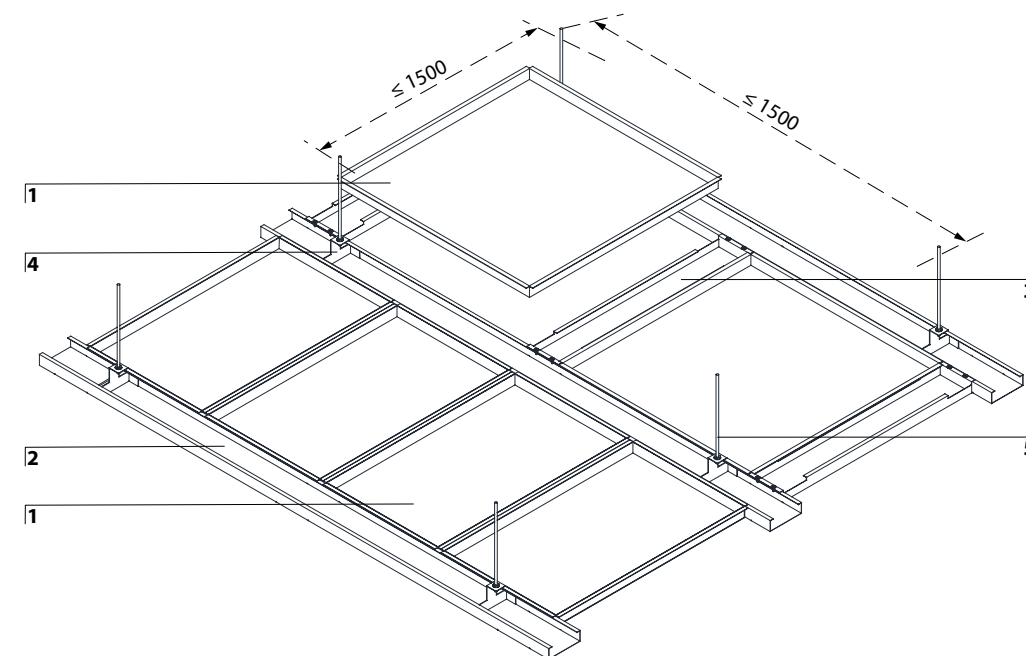
### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 511 CONTINUOUS RAM 512 INVERTED

### ISOMETRIC DETAIL



### COMPONENTS

- 1 Panel
- 2 Main Beam Carrier
- 3 Cross Beam
- 4 Hanging Bracket
- 5 Threaded Rod
- 6 Anti-Vibration Clip (RH) •
- 7 Wall Trim
- 8 Wall End Bracket •
- 8 Inverted Beam (Direct)
- 8 Inverted Beam (Indirect)

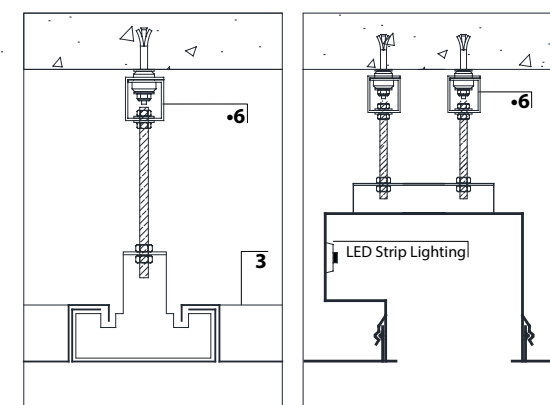
• Luminous Panel •

• Fire Resistant •

• Optional

Custom sizes can be offered

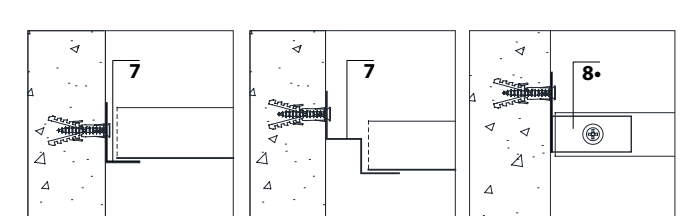
### SECTION DETAIL



### PANEL-BEAM JOINT DETAIL



### PERIMETER OPTIONS



# 520 series THREADED/FLAT

This threaded/flush beam profile ceiling is an ideal solution for integrating ceiling with demountable partition, hanging & support for light (weight) signs & multimedia materials. Available with sound attenuation panels. Can be manufactured in single & double skin. The beam profile can be used to integrate light fittings, AC grills, and other MEP services. Offered as recess, flush, or reveled edge with the panel. Panels are laid on the beam profile, which can be produced in multiple sizes in order to avoid cutting the panels. Lifts upwards for access to ceiling void. Offered in a wide range of sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

PANELS (mm)  
Aluminum or Galvanized Steel:  
0.5 to 1.0

BEAMS (mm)  
Galvanized Steel:  
0.5 to 2.0

+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated  
Decorative Patterns

### SIZE

TYPE  
RAM 521: Threaded profile  
RAM 523: Flush

BEAM WIDTH (mm): 100-300

DIMENSIONS (mm)  
600x600/750x750/900x900/1000x1000/  
1200x1200/1500x1500

+ Custom sizes are available upon request

### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

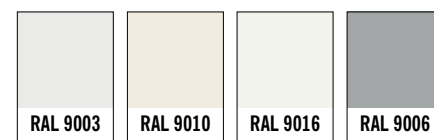
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS



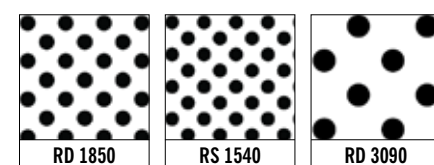
### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



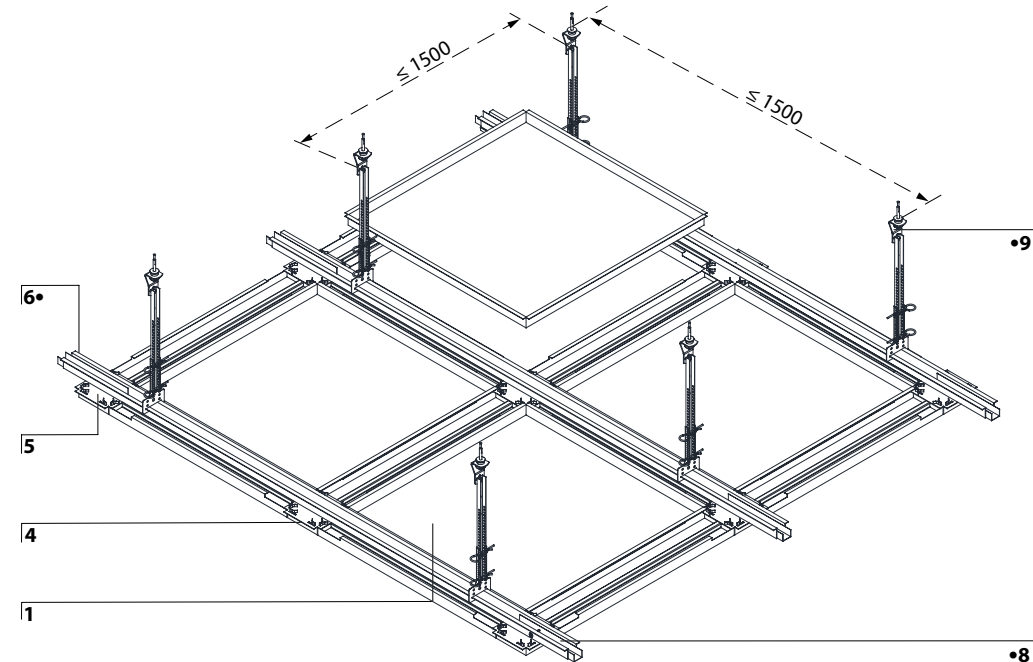
### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
"Non-Combustible" Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 521 THREADED RAM 522 FLAT

### ISOMETRIC DETAIL



### COMPONENTS

- 1 Panel
- 2 Beam Channel (Threaded)
- 3 Beam Channel (Flush)
- 4 Junction Box
- 5 Junction Plate
- 6 Beam Stabilizer
- 7 Rigid Hanging System
- 8 BS Splice
- 9 Anti-Vibration Clip (RH)
- 10 Wall Trim
- 11 Wall End Bracket

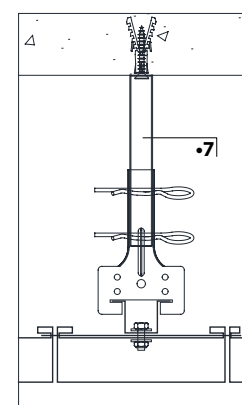
• Luminous Panel

• Fire Resistant

• Optional

Custom sizes can be offered

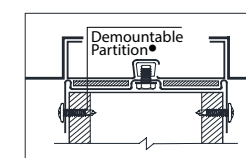
### OPTIONAL HANGING SOLUTIONS



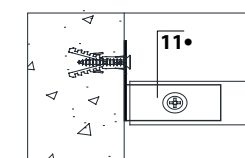
### PANEL-BEAM JOINT DETAIL



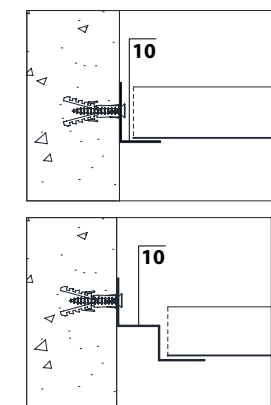
### BEAM PARTITION DETAIL



### WALL END BRACKET DETAIL



### PERIMETER OPTIONS





# 530 series HOOK-ON

This system is supported on a heavy duty concealed plate is an ideal solution for integrating ceiling with demountable partition. Available with sound attenuation panels. Can be manufactured in single & double skin. The beam profile can be recess, flush, & reveled edge with the panel, and can be demountable independently in order to be replaced by light fittings, AC grills, or top track partitions. The beam is demountable with downward accessibility. The panel is demountable with upward accessibility. Offered in a wide range of sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

**PANELS** (mm)  
Aluminum or Galvanized Steel:  
0.5 to 1.0

**BEAMS** (mm)  
Galvanized Steel:  
0.5 to 2.0

+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated  
Decorative Patterns

### SIZE

**TYPE**  
Hook

**PANEL JOINT DETAIL**  
Square

**BEAM WIDTH** (mm): 100-300

**DIMENSIONS** (mm)  
600x600/750x750/900x900/1000x1000/  
1200x1200/1500x1500

+ Custom sizes are available upon request

### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

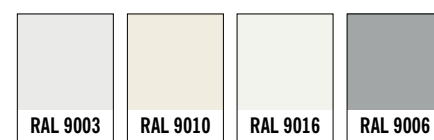
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS



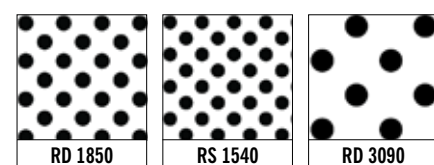
### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



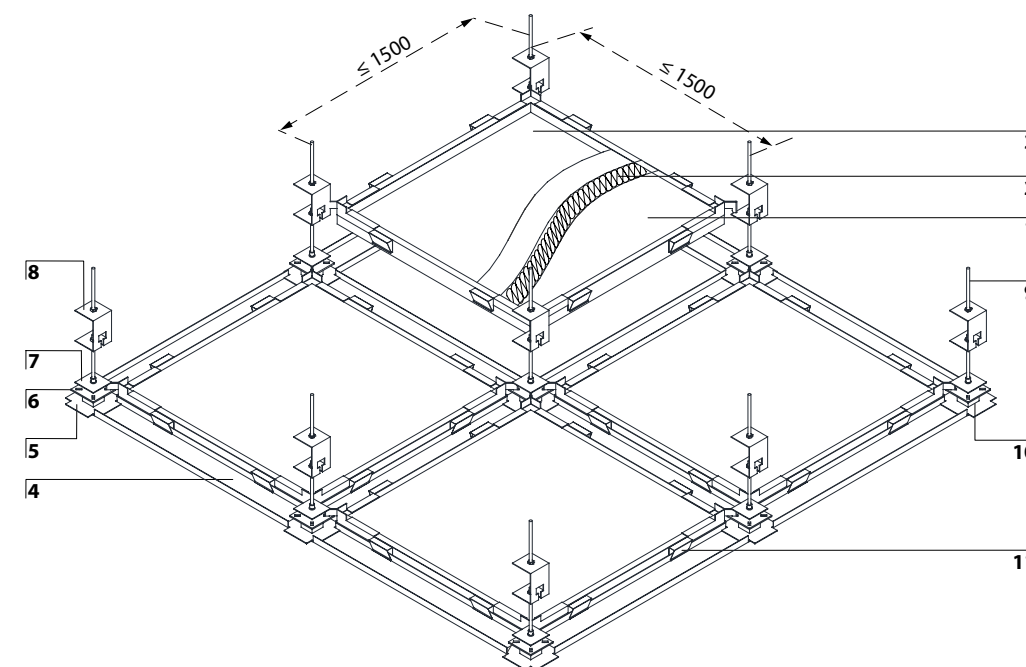
### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 531 HOOK-ON

### ISOMETRIC DETAIL



### COMPONENTS

- 1 Panel
- 2 Rockwool Insulation •
- 3 Sound Attenuation Panel •
- 4 Main Beam Channel
- 5 Lay-in Junction Plate
- 6 Suspension Plate
- 7 Security Plate
- 8 Adjustable Hanging Bracket
- 9 Threaded Rod
- 10 Threaded Profile
- 11 Half Spring Clip
- 12 Hook Profile
- 13 Anti-Vibration Clip (TR) •
- 14 Wall End Bracket •
- 15 Wall Trim

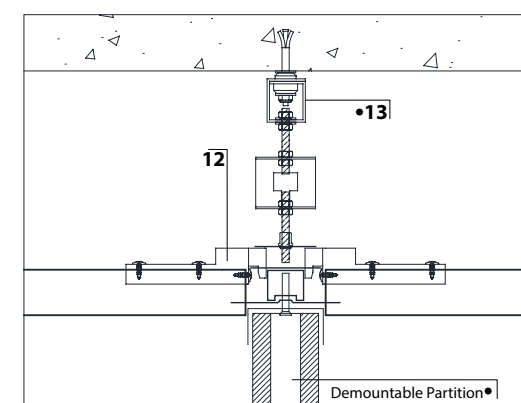
• Luminous Panel •

• Fire Resistant •

• Optional

Custom sizes can be offered

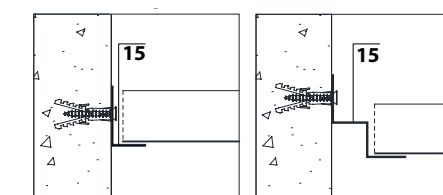
### SECTION DETAIL



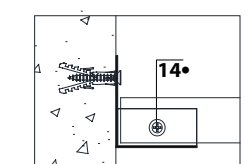
### PANEL JOINT DETAIL




### PERIMETER OPTIONS



### WALL END BRACKET DETAIL





CEILING SYSTEMS  
**TORSION**

**610 SR**  
**620 T**

# 610 series

## SR

This hinge down type modular torsion spring ceiling system with reveled edge is an ideal solution for mega size panels and multiple height ceilings. It is highly sustainable and durable. Available with sound attenuation panels. Can be produced in double skin. Fully demountable with downward hinge down accessibility without using any special tool. Offered in a wide range of sizes, colors & finishes.

### FEATURES

#### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

#### THICKNESS

Aluminum or Galvanized Steel:  
0.5mm to 1.0mm.

+ Custom thickness are available upon request

+ Spring Material- Stainless Steel for both options

#### SURFACE FINISH

Plain  
Perforated  
Decorative Patterns

#### SIZE

PANEL JOINT DETAIL  
Square

DIMENSIONS (mm)  
600x600/600x1200/1200x1200

+ Custom sizes are available upon request

#### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

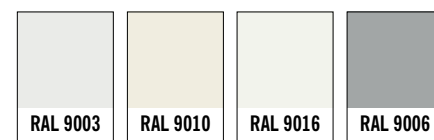
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

#### COLORS



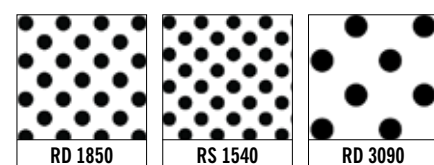
#### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

#### PERFORATION PATTERNS



+ See page 136 for all other pattern options

### DATA / PERFORMANCE



#### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



#### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



#### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



#### FIRE PERFORMANCE

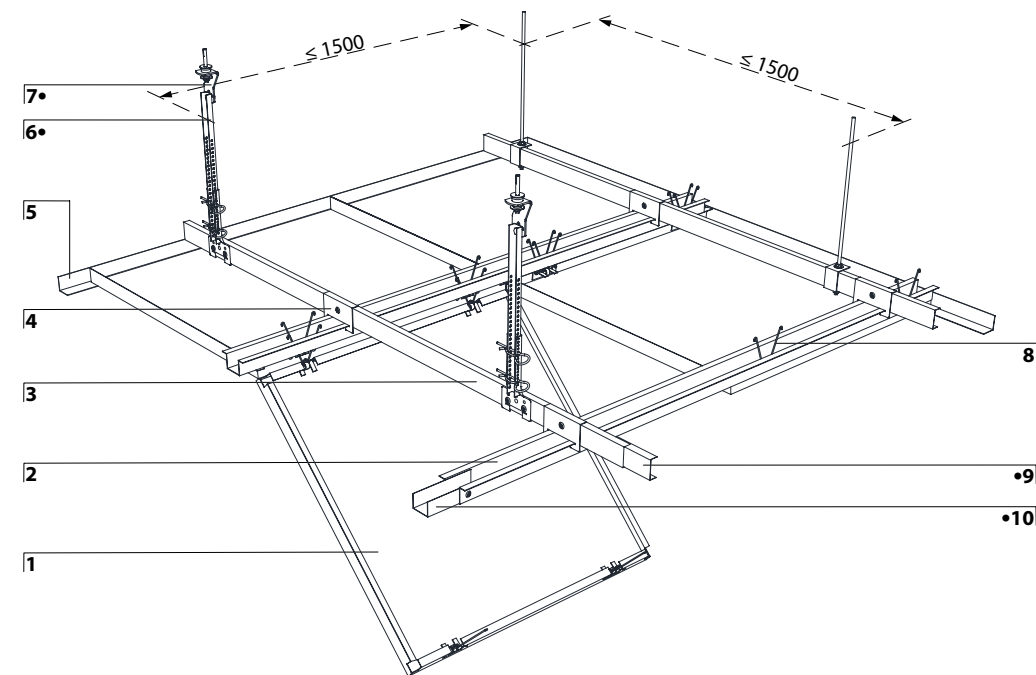
Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997

“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 611 SQUARE/RECTANGULAR

### ISOMETRIC DETAIL



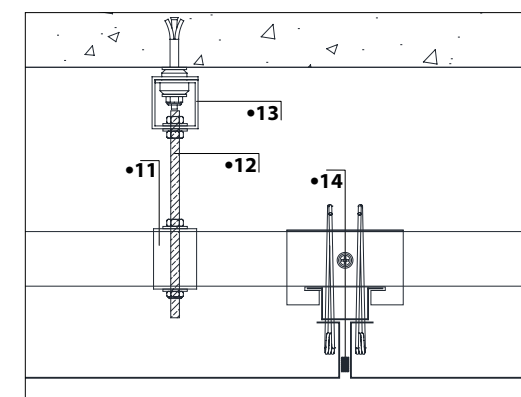
#### COMPONENTS

- 1 Panel
- 2 Torsion Spring Carrier
- 3 Stabilizer
- 4 TC Bracket
- 5 Wall Trim
- 6 Rigid Hanging System
- 7 Anti-Vibration Clip (RH)
- 8 Torsion Spring Wire
- 9 ST Splice
- 10 C Splice
- 11 Universal Bracket
- 12 Threaded Rod
- 13 Anti-Vibration Clip (TR)
- 14 Self-Adhesive Tape

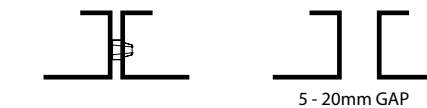
Luminous Panel

• Optional  
Custom sizes can be offered

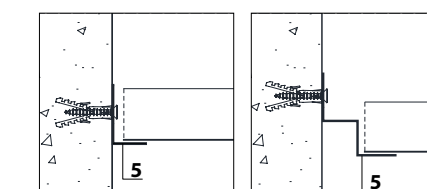
### SECTION DETAIL



### JOINT DETAIL



### PERIMETER OPTIONS



# 620 series

T

This hinge down type triangular torsion spring ceiling system with reveled edge is an ideal solution for mega size panels and multiple height ceilings. A highly sustainable and durable system. Available with sound attenuation panels. Can be manufactured in double skin. A heavy duty torsion spring system is with a secured panel to hinged down from the ceiling. Fully demountable with downward hinge down accessibility without using any special tool. Offered in a wide range of sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

Aluminum or Galvanized Steel:  
0.5mm to 1.0mm.

+ Custom thickness are available upon request

+ Spring Material- Stainless Steel for both options

### SURFACE FINISH

Plain  
Perforated  
Decorative Patterns

### SIZE

#### TRIANGLE TYPE

Equilateral  
Isosceles  
Scalene

#### PANEL JOINT DETAIL

3mm/5mm gap

+ Custom sizes are available upon request

### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

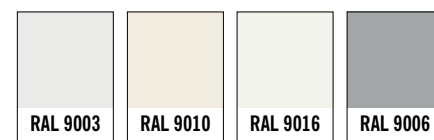
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS



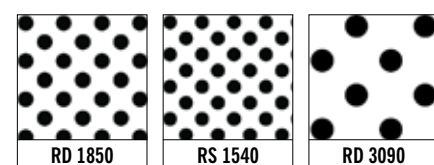
### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



### FIRE PERFORMANCE

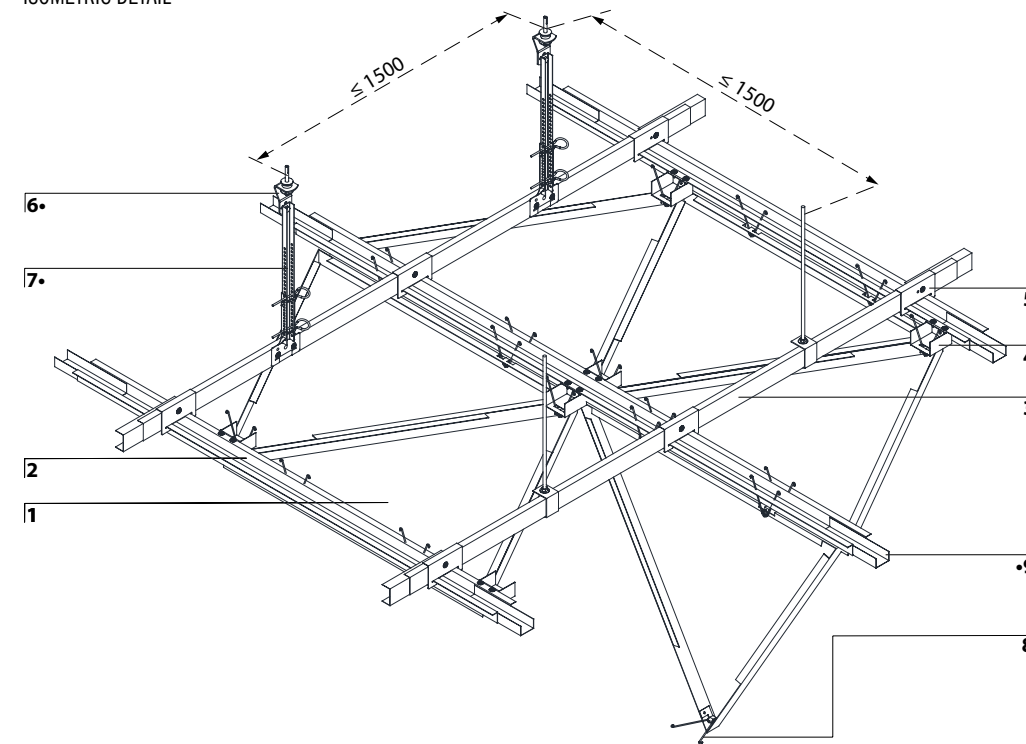
Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997

“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 621 TRIANGULAR FLAT RAM 622 TRIANGULAR 3D

### ISOMETRIC DETAIL



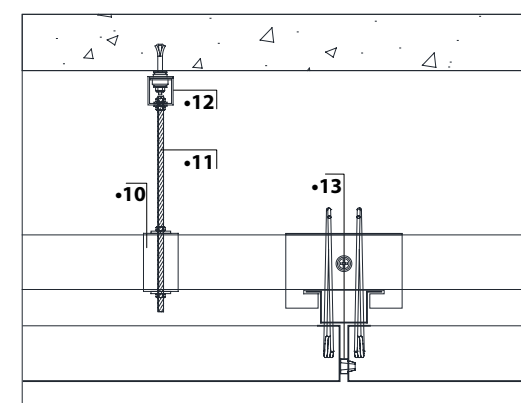
### COMPONENTS

- 1 Panel (RAM 621)
- 2 Torsion Spring Carrier
- 3 Stabilizer
- 4 Carrier Bracket
- 5 Stabilizer Bracket
- 6 Anti-Vibration Clip (RH)
- 7 Rigid Hanging System
- 8 Torsion Spring Wire
- 9 C Splice
- 10 Universal Bracket
- 11 Threaded Rod
- 12 Anti-Vibration Clip (TR)
- 13 Self-Adhesive Tape
- 14 Wall Trim

Luminous Panel

• Optional  
Custom sizes can be offered

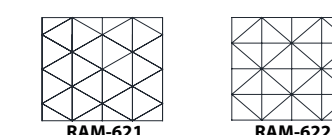
### SECTION DETAIL



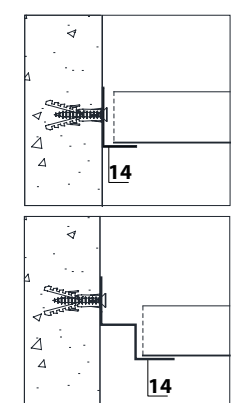
### JOINT DETAIL



### PANEL DESIGN PATTERN



### PERIMETER OPTIONS





CEILING SYSTEMS  
**FIRE RATED**

**710 F90**

**720 F120**

CEILING SYSTEMS  
FIRE RATED

# 710 series

## F90



### DATA / PERFORMANCE



**ACOUSTICS**  
Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



**ANTI BACTERIAL COATING**  
Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



**LIGHT REFLECTANCE (LR)**  
Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



**FIRE RESISTANCE**  
Rated up to 115 minutes tested as per BS476: Part 23: 1987

A clip in hinge down ceiling type, clipped in to a concealed suspension system with non-perforated finish making it an ideal solution for industrial & central kitchens. Fire resistance performance close to 2 hours, and classified as medium security. Hinge down accessibility using panel removal access key tool. Offered in a wide range of sizes, colors & finishes .

### FEATURES

#### MATERIAL

Zinc Plated Galvanized Steel G90 grade.

#### THICKNESS

Galvanized Steel:  
0.7mm

#### SURFACE FINISH

Plain  
Perforated  
Decorative Patterns

#### SIZE

**PANEL JOINT DETAIL (mm)**  
Square:  
W ≤600mm x L ≤1800mm  
3mm Beveled:  
600x600

+ Custom sizes are available upon request

#### COATING

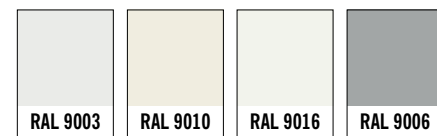
Polyester Coating: ((5μ (Back) + 20μ (Face))  
Polyester Powder Coating: (70μ -80μ)  
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

#### COLORS



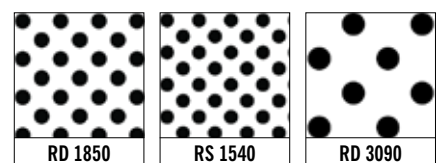
#### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

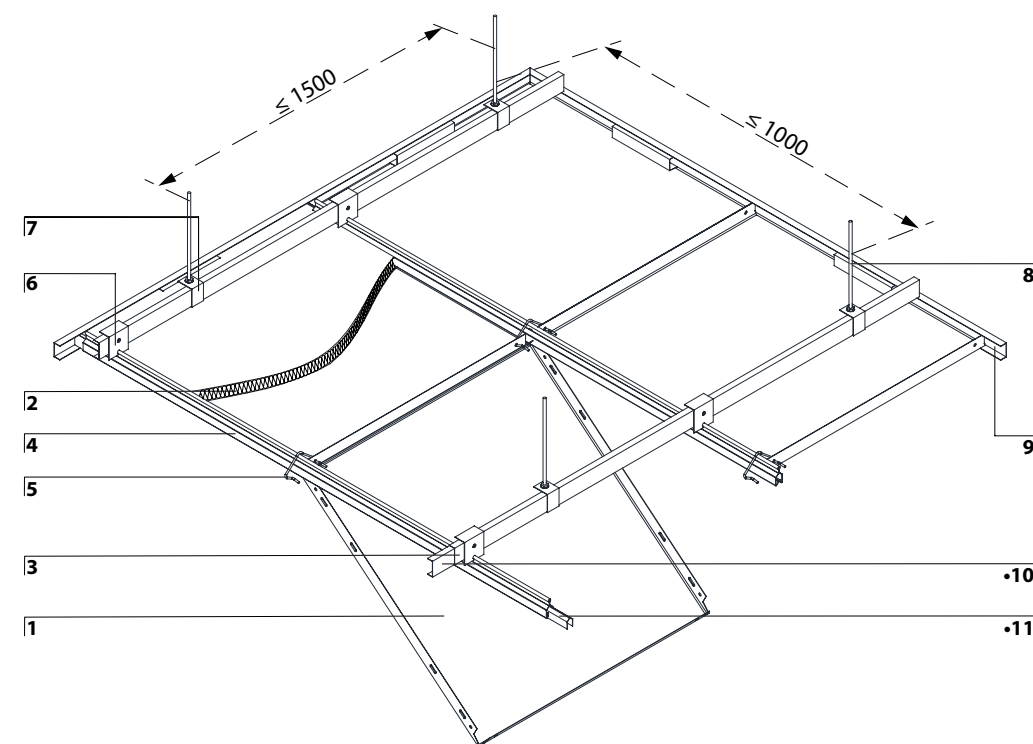
#### PERFORATION PATTERNS



+ See page 136 for all other pattern options

### RAM 711 F90

#### ISOMETRIC DETAIL

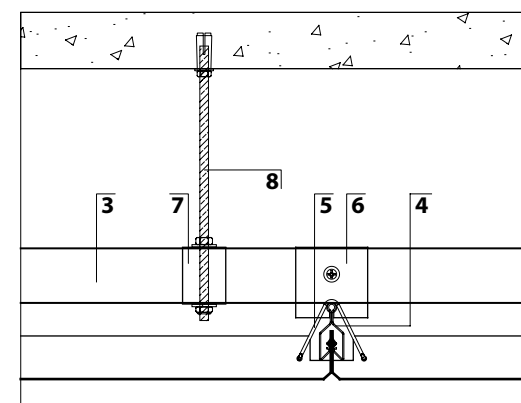


#### COMPONENTS

- 1 Panel
- 2 Rockwool Infill
- 3 Stabilizer
- 4 Narrow Carrier
- 5 Security Clip
- 6 NC Bracket
- 7 ST Bracket
- 8 Threaded Rod
- 9 Wall Trim
- 10 ST Splice •
- 11 C Splice •
- 12 Wedge •
- 13 Anti-Vibration Clip (TR) •

• Optional  
Custom sizes can be offered

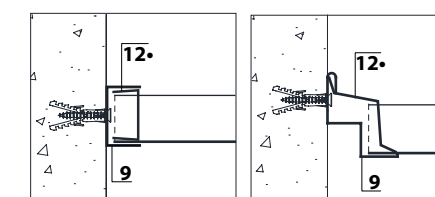
#### SECTION DETAIL



#### JOINT DETAILS



#### PERIMETER OPTIONS



#### ACCESS TOOL •



CEILING SYSTEMS  
FIRE RATED

# 720 series

## F120



### DATA / PERFORMANCE



**ACOUSTICS**  
Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



**ANTI BACTERIAL COATING**  
Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



**LIGHT REFLECTANCE (LR)**  
Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



**FIRE RESISTANCE**  
Fire Rated up to 132 minutes tested as per BS476: Part 23: 1987.

Concealed fire rated ceiling panels with spring action latch lock on beam profile. An ideal solution for integrating ceiling with demountable partition, hanging & support for light (weight) signs & multimedia materials. For use in airports, universities & office buildings. Fire resistance performance exceed to 2 hours. High acoustic performance of sound absorption as well as tested with high CAC 51db sound transmission. Fully demountable with downward accessibility using panel removal access key tool. Offered in a wide range of sizes, colors & finishes.

### FEATURES

#### MATERIAL

Zinc Plated Galvanized Steel G90 grade.

#### THICKNESS

**PANELS** (mm)  
Aluminum or Galvanized Steel:

#### BEAMS

(mm)  
Galvanized Steel:

+ Custom thickness are available upon request

#### SURFACE FINISH

Plain  
Perforated  
Decorative Patterns

#### SIZE

**TYPE**  
concealed

**PANEL JOINT DETAIL**  
Square

**DIMENSIONS** (mm)  
600x600/750x750/900x900/1000x1000/  
1200x1200/1500x1500

+ Custom sizes are available upon request

#### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

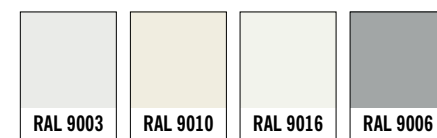
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

#### COLORS



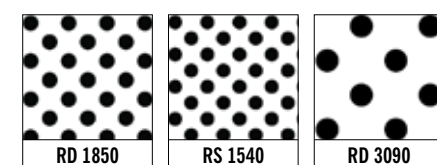
#### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

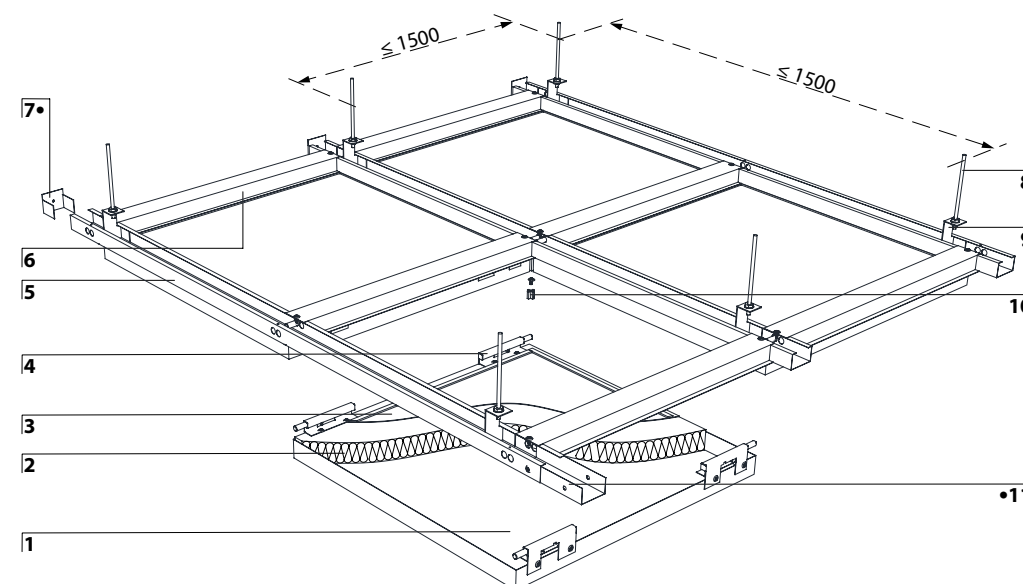
#### PERFORATION PATTERNS



+ See page 136 for all other pattern options

### RAM 721 F120

#### ISOMETRIC DETAIL



#### COMPONENTS

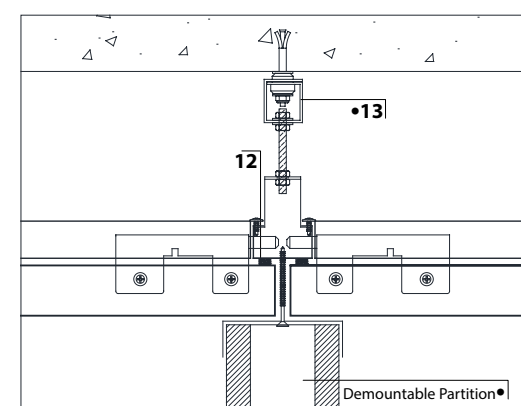
- 1 Panel
- 2 Rockwool Infill
- 3 Sound Attenuation Panel
- 4 Spring Action Latch Lock
- 5 Main Beam Channel
- 6 Cross Beam Channel
- 7 Wall End Bracket •
- 8 Threaded Rod
- 9 Hanging Bracket
- 10 Cross Spacer
- 11 B Splice •
- 12 Self-Adhesive Acoustic Tape
- 13 Anti-Vibration Clip (TR) •
- 14 Wall Trim
- 15 Wall End Bracket

• Optional

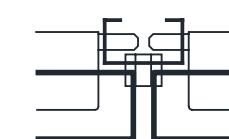
Custom sizes can be offered

Fire Resistant •

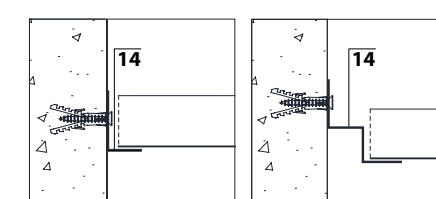
#### SECTION DETAIL



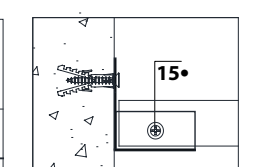
#### PANEL JOINT DETAIL



#### PERIMETER OPTIONS



#### WALL END BRACKET DETAIL





CEILING SYSTEMS  
**SECURITY**  
810 HIGH GUARD



# 810 series HIGH GUARD



## DATA / PERFORMANCE



**ACOUSTICS**  
Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.  
Maximum NRC achieved with Acoustic Black fleece – NRC 0.75  
Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00  
Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.  
Maximum CAC can achieved up to — 48 dB  
Perforated & Sound Attenuation cover



**ANTI BACTERIAL COATING**  
Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



**LIGHT REFLECTANCE (LR)**  
Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



**SECURITY**  
Complies with ASTM F2322 standards for physical assault on vertical fixed barriers for detention and correctional facilities



**FIRE PERFORMANCE**  
Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970  
Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

A high guard ceiling type. Grade 1 is designed for maximum security and is ideal for prisons, detention centers, and other high security zones. Security access panel with master key solution available. Grade 4 is designed for light security and is ideal for airport washrooms, classrooms, light detention centers, and other light security zones. Security access panel with special tool available. Tested as per ASTM F2322-2012 standards for maximum Grade 1 criteria & tested for load bearing capacity. Offered in a wide range of sizes, colors & finishes.

## FEATURES

### MATERIAL

Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

Galvanized steel:  
RAM 811: 3.0mm  
RAM 812: 2.0mm

+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated

### SIZE

**PANELS (mm)**  
600x600/600x1200

+ RAM 811 (with security brackets)  
+ RAM 812 (with security lock)

+ Custom sizes are available upon request

### COATING

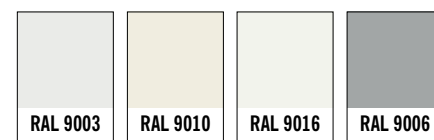
Polyester Coating: ((5μ (Back) + 20μ (Face))  
Polyester Powder Coating: (70μ -80μ)  
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS

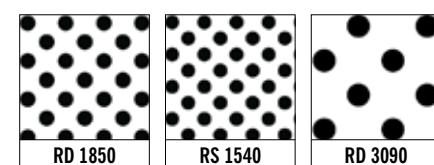


### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available  
+ Special finishes can be provided in lamination, sublimation or coil coating process.

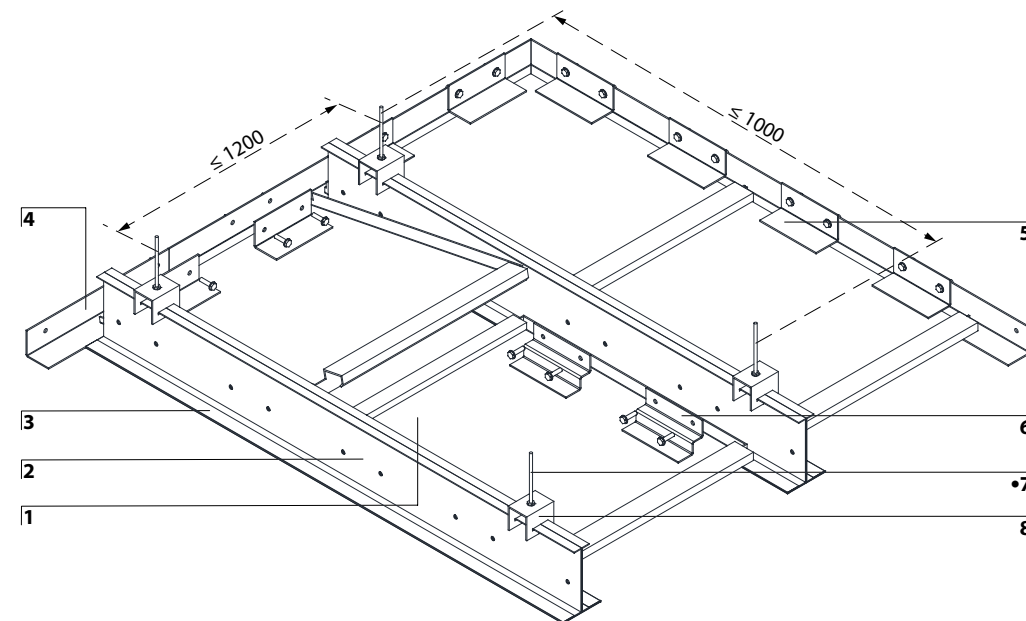
### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## RAM 811 SECURITY CEILING GRADE 1 RAM 812 SECURITY CEILING GRADE 4

### ISOMETRIC DETAIL

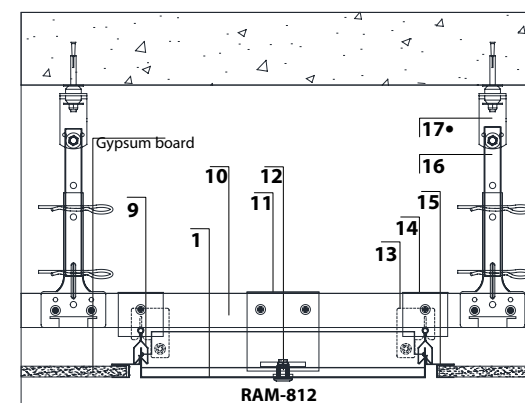


### COMPONENTS

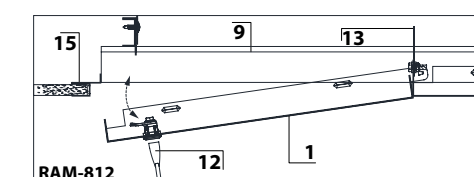
- 1 Panel
- 2 Carrier Profile
- 3 Carrier Cap
- 4 Wall Trim
- 5 L Wedge
- 6 W Wedge
- 7 Threaded Rod •
- 8 C Bracket
- 9 Narrow Carrier
- 10 Stabilizer
- 11 Security Plate
- 12 Budget Security Lock & Key
- 13 SL Bracket
- 14 NC Bracket
- 15 F Profile
- 16 Rigid Hanging System
- 17 Anti-Vibration Clip (RH) •

• Optional  
Custom sizes can be offered

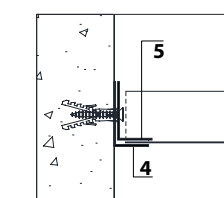
### CROSS SECTION



### ACCESS PANEL SECTION



### PERIMETER OPTION



CEILING SYSTEMS  
**BAFFLE**

- 910** BLADE
- 920** BAFFLE
- 930** TUBULAR
- 940** DIASPACE
- 950** 3D

# 910 series BLADE

Slim profile and a modern look. For use in airports, metro stations, car showrooms & libraries. Ideal for open spaces with high ceilings to see through the void. Can be produced in variable modules between blades, with different depths, up to 4000mm long. Available in straight or formed V bent & solid line. Fully demountable. A special service tray can be produced to integrate light fitting & other MEP services in order to provide clear finish. Offered in a wide range of designs, sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.  
Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

Aluminum: 0.5mm to 1.0mm.  
Galvanized Steel: 0.5mm to 0.7mm.  
+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated

### SIZE

HEIGHTS (mm)  
RAM 911: 100–200  
RAM 912: 300–600

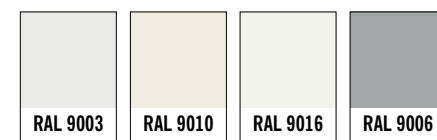
SPACING (mm)  
100/150/200/300

+ Custom sizes are available upon request

### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))  
Polyester Powder Coating: (70μ -80μ)  
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### COLORS

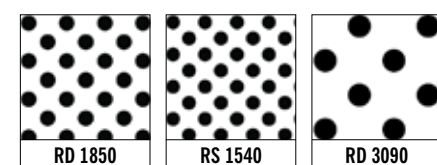


### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available  
+ Special finishes can be provided in lamination, sublimation or coil coating process.

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



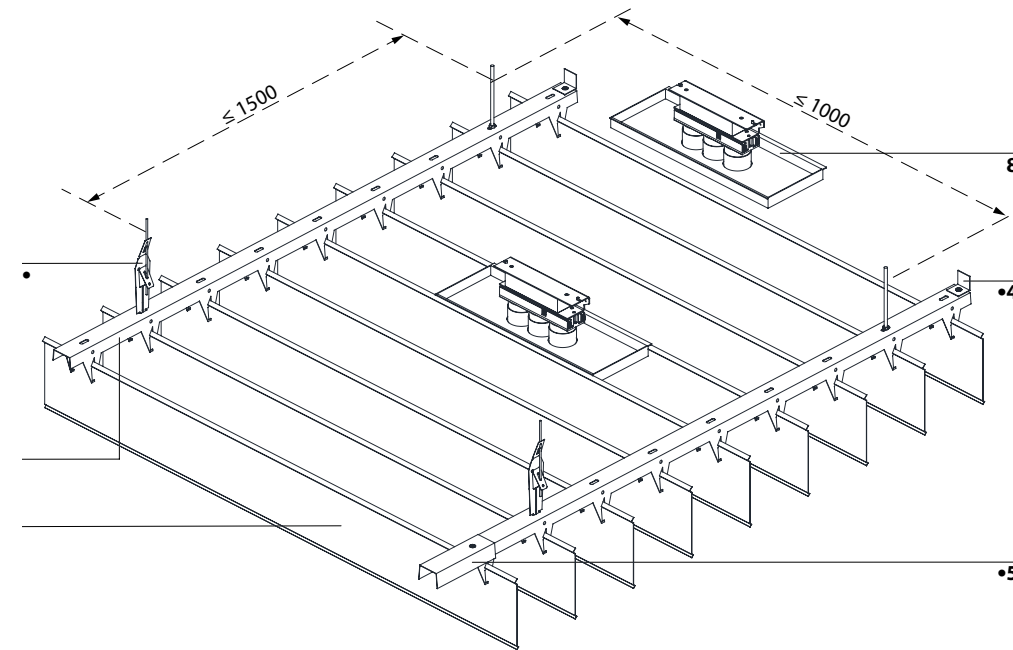
### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 911 V LINE RAM 912 SOLID LINE

### ISOMETRIC DETAIL

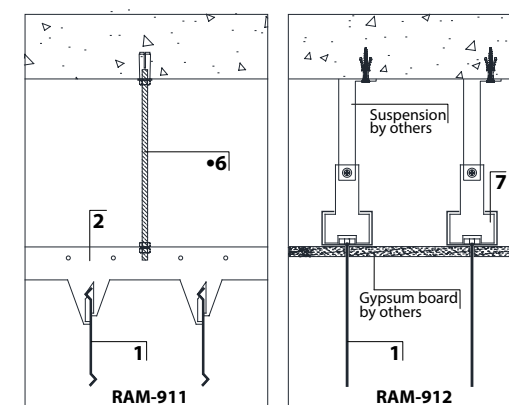


### COMPONENTS

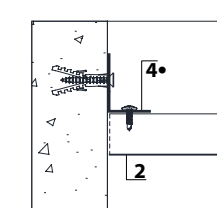
- 1 Blade
- 2 RAM 911 Carrier
- 3 Adjustment Clip
- 4 Wall End Bracket
- 5 C Splice
- 6 Threaded Rod
- 7 Hanging Bracket
- 8 Service Tray

• Optional  
Custom sizes can be offered

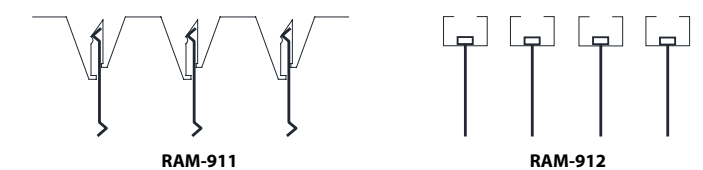
### OPTIONAL HANGING SOLUTIONS



### PERIMETER DETAILS



### STRIP DETAIL



## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997 “Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

A deep profile U shape with a modern Look. For airports, metro stations, car showrooms & libraries. Ideal for open spaces & high ceiling level to view through the void. Can be produced in variable modules between baffles, in a variety of depths up to 300mm. Deep baffle 200-300mm, is available with the proper acoustic insulation and is fully demountable. Integrated light fittings & other MEP services are available in order to provide clear finish. Offered in a wide range of designs, sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

Aluminum: 0.5mm to 1.0mm

Galvanized steel:

RAM 921: 0.5mm to 0.9mm

RAM 922: 0.5mm to 0.7mm

+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated

### SIZE

HEIGHTS (mm)

RAM 921: Up to 100

RAM 922: Up to 300

WIDTH (mm)

RAM 921: 10/20/30

RAM 922: 25/40/100/200

LENGTH (mm)

UP TO 3000

+ Custom sizes are available upon request

### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

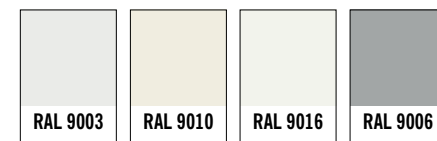
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool slabs** conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS



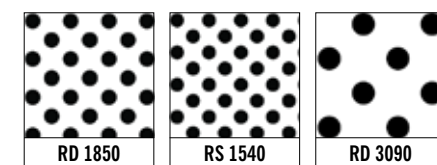
### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

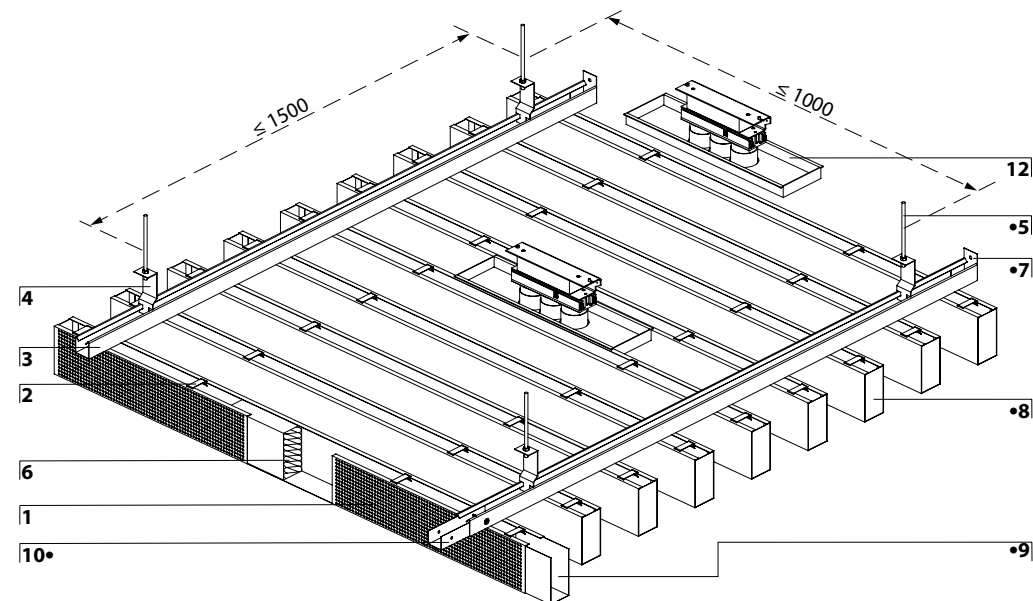
### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## RAM 921 FINS RAM 922 BAFFLE

### ISOMETRIC DETAIL



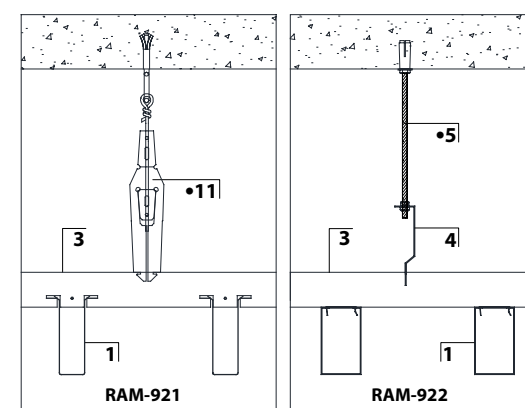
### COMPONENTS

- 1 Baffle
- 2 Security Clip
- 3 Carrier
- 4 Hanging Bracket
- 5 Threaded Rod
- 6 Rockwool
- 7 Wall End Bracket
- 8 End Cap
- 9 RF Splice
- 10 C Splice
- 11 Adjustment Clip
- 12 Service Tray

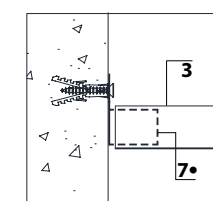
• Optional

Custom sizes can be offered

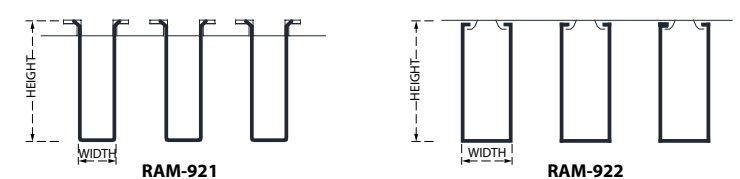
### OPTIONAL HANGING SOLUTIONS



### PERIMETER DETAILS



### STRIP DETAILS



# 930 series TUBULAR

Non-conventional profile shape with a modern look. A unique round profile that can be manufactured in perforated finishes. For airports, metro stations, car showrooms & libraries. Can be produced in variable modules between baffles. Installed, can produce a curved or wave shape. It is fully demountable. A special service box can be produced to integrate light fitting & other MEP services in order to provide a clear finish. Offered in a wide range of designs, sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

### THICKNESS

Aluminum (mm)  
RAM 931: 0.5 to 0.7  
RAM 932: 1.0

+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated

### SIZE

HEIGHTS (mm)  
RAM 931: 60  
RAM 932: 45/55/70/80

WIDTH (mm)  
RAM 931: 80  
RAM 932: 25/50

SPACING (mm)  
RAM 931: 20  
RAM 932: 75/100/15/0200

LENGTH (mm)  
UP TO 3000

+ Custom sizes are available upon request

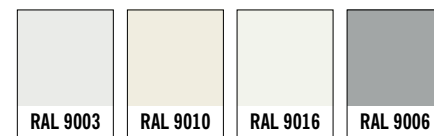
### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### COLORS



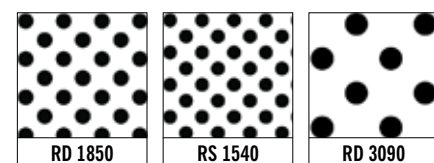
### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



### FIRE PERFORMANCE

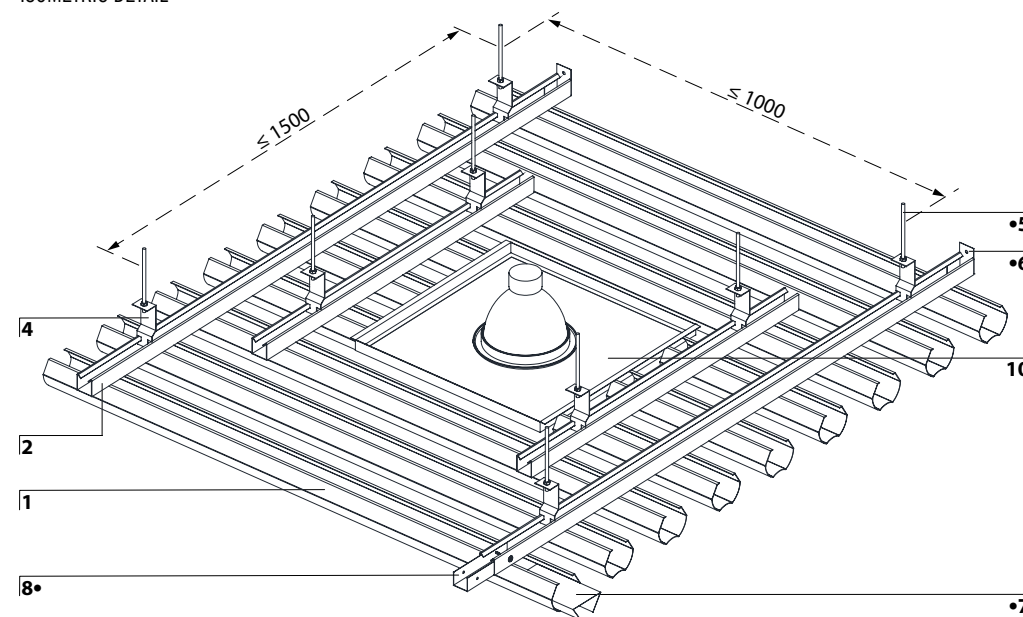
Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997

“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 931 C LINE RAM 932 O LINE

### ISOMETRIC DETAIL

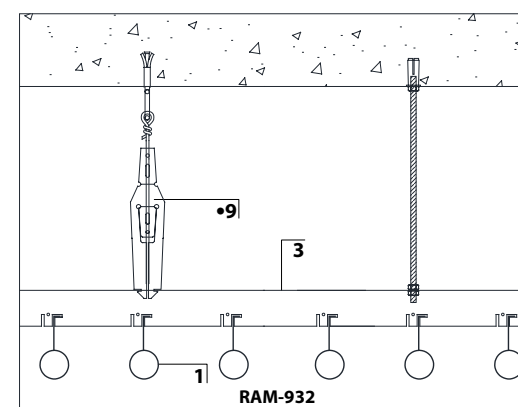


### COMPONENTS

- 1 Tube
- 2 RAM 931 Carrier
- 3 RAM 932 Carrier
- 4 Hanging Bracket
- 5 Threaded Rod
- 6 Wall End Bracket
- 7 T Splice
- 8 C Splice
- 9 Adjustment Clip
- 10 Service Box

• Optional  
Custom sizes can be offered

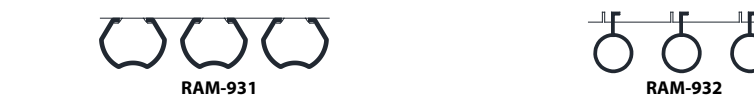
### OPTIONAL HANGING SOLUTIONS



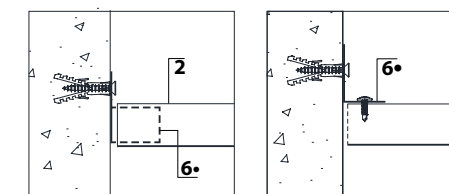
### PANEL DESIGN PATTERN



### STRIP DETAILS



### PERIMETER DETAILS



# 940 series DIASPACE

A non-conventional profile shape with a modern look. Ideal for open spaces & high ceiling level to view through the void. For airports, metro stations, car showrooms & libraries. Can be produced with variable modules in between. Fully demountable. Special service tray can be produce to integrate light fitting & other MEP services in order to provide clear finish. Offered in a wide range of designs, sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

### THICKNESS

Aluminum (mm)  
0.5 to 0.6

+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated

### SIZE

HEIGHT (mm)  
300

WIDTH (mm)  
100

LENGTH  
Up to 3000mm

SPACING (mm)  
50/100/150

+ Custom sizes are available upon request

### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

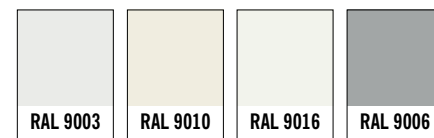
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool slabs** conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS



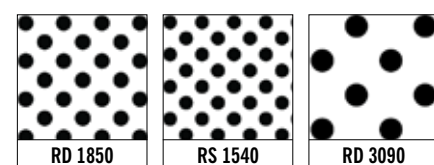
### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



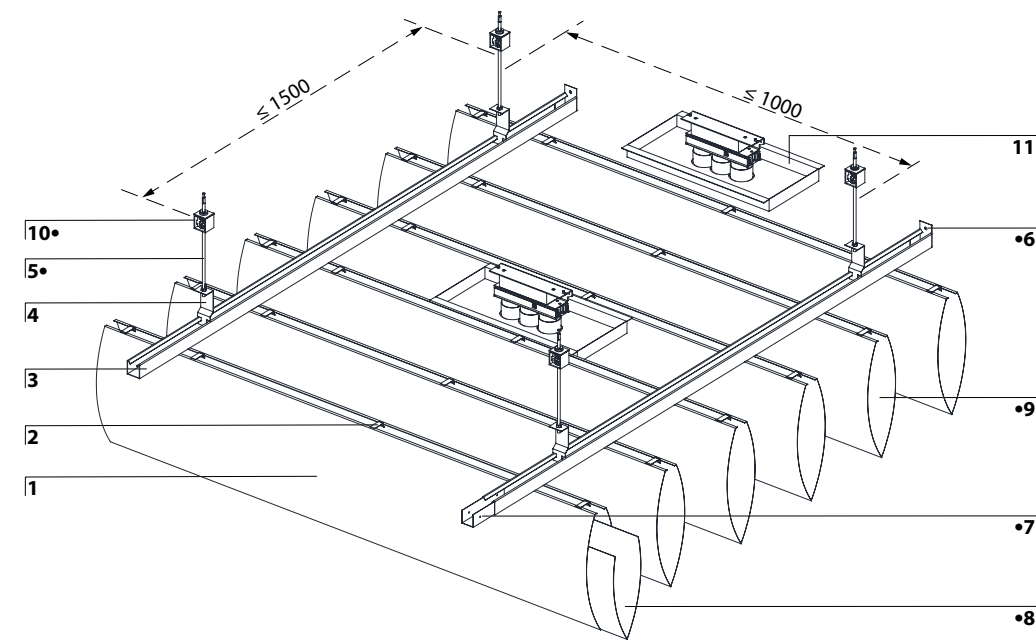
### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
"Non-Combustible" Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 941 DIASPACE

### ISOMETRIC DETAIL

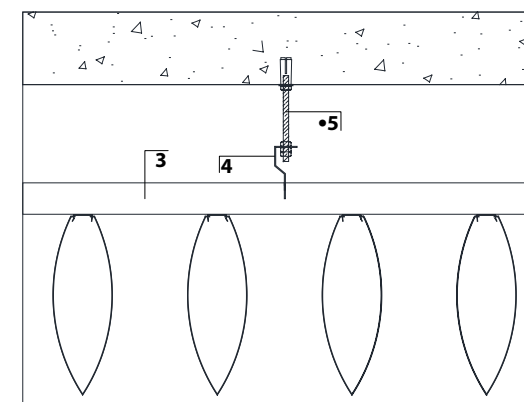


### COMPONENTS

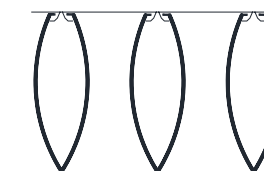
- 1 Baffle
- 2 Security Clip
- 3 Carrier
- 4 Hanging Bracket
- 5 Threaded Rod
- 6 Wall End Bracket
- 7 C Splice
- 8 D Splice
- 9 End Cap
- 10 Anti-Vibration Clip (TR)
- 11 Service Tray

• Optional  
Custom sizes can be offered

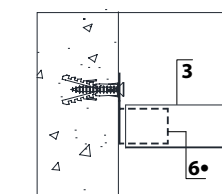
### SECTION DETAIL



### STRIP DETAIL



### PERIMETER DETAIL



# 950 series

## 3D



An architectural solution for connecting ceilings to walls. Ideal for open spaces & high ceiling level to view through the void. For airports, metro station, car showroom, & libraries. Can be produced in horizontal as well as vertical curvature and in variable depths up to 1000mm. Acoustic insulation for optimal performance and is fully demountable. A special service tray can be produced to integrate light fitting & other MEP services in order to provide clear finish. Offered in a wide range of designs, sizes, colors & finishes.

### FEATURES

#### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.  
Zinc Plated Galvanized Steel G90 grade.

#### THICKNESS

Aluminum (mm)  
0.5 to 1.0  
Galvanized Steel (mm)  
0.5 to 0.9  
+ Custom thickness are available upon request

#### SURFACE FINISH

Plain  
Perforated

#### SIZE

HEIGHT (mm): Up to 50mm  
WIDTH (mm): 10/20/30  
LENGTH: Up to 3000mm  
+ Custom sizes are available upon request

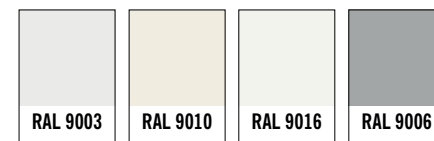
#### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))  
Polyester Powder Coating: (70μ -80μ)  
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.  
**Rockwool slabs** conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

#### COLORS

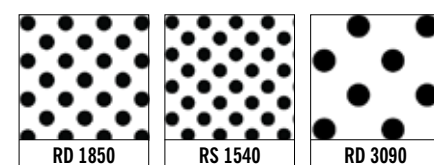


#### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available  
+ Special finishes can be provided in lamination, sublimation or coil coating process.

#### PERFORATION PATTERNS



+ See page 136 for all other pattern options

### DATA / PERFORMANCE



**ACOUSTICS**  
Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.  
Maximum NRC achieved with Acoustic Black fleece – NRC 0.75  
Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00  
Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.  
Maximum CAC can achieved up to — 48 dB  
Perforated & Sound Attenuation cover



**ANTI BACTERIAL COATING**  
Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



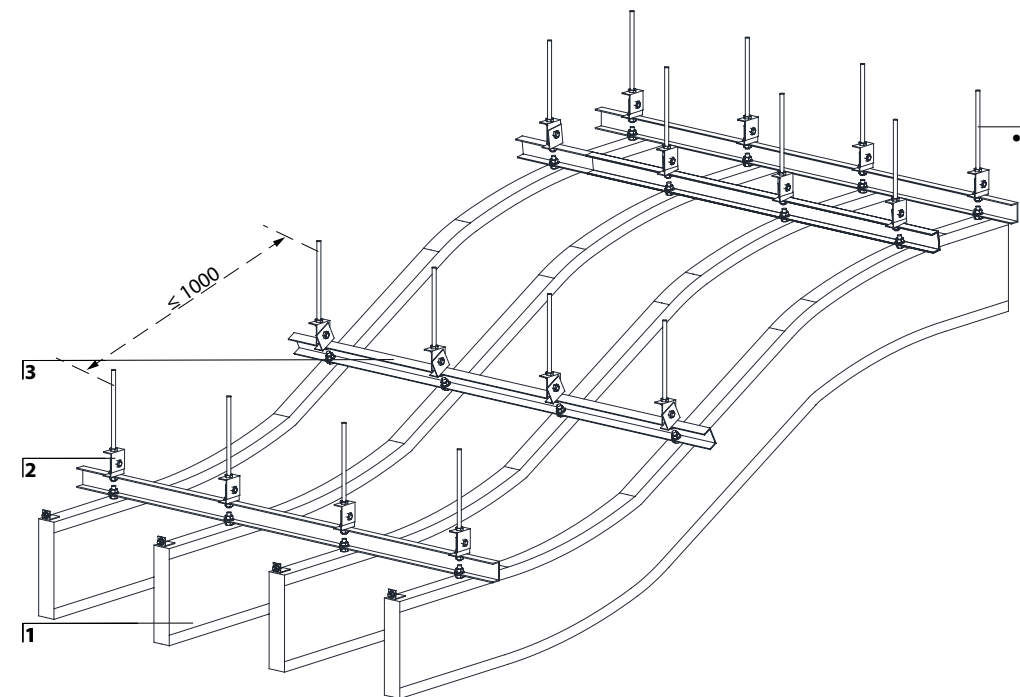
**LIGHT REFLECTANCE (LR)**  
Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



**FIRE PERFORMANCE**  
Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970  
Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

### RAM 951 3D

#### ISOMETRIC DETAIL

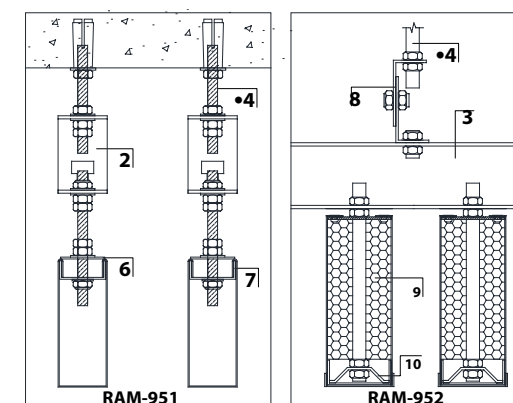


#### COMPONENTS

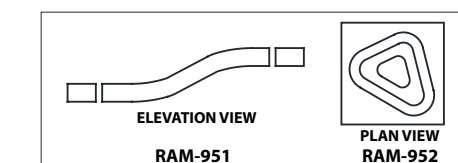
- 1 Baffle
- 2 Flexible Bracket
- 3 Stabilizer
- 4 Threaded Rod •
- 5 F Splice
- 6 Expansion Plate
- 7 Hanging Bracket
- 8 L Angle Profile
- 9 Honey Comb
- 10 Nut Bracket

• Optional  
Custom sizes can be offered

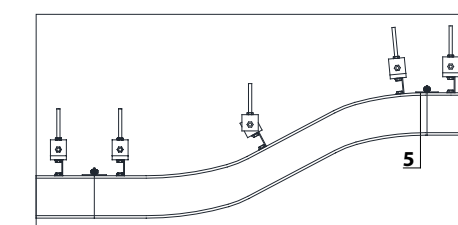
#### OPTIONAL HANGING SOLUTIONS



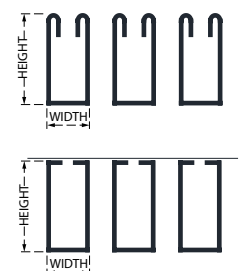
#### PANEL DESIGN PATTERN




#### LONGITUDINAL SECTION



#### STRIP DETAIL





CEILING SYSTEMS  
**CURVED**

**1010 WINGS**  
**1020 WAVES**



CEILING SYSTEMS  
CURVED

# 1010 series WINGS



A multi-dimensional ceiling profile. Can be used on walls & high levels. Light weight and fully demountable. An acoustic pad can added to improved acoustic performance. Offered in a wide range of sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

### THICKNESS

Aluminum (mm)  
0.7 to 1.0

+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated

### SIZE

WIDTH (mm): 600

LENGTH (mm): Up to 2000

+ Custom sizes are available upon request

### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

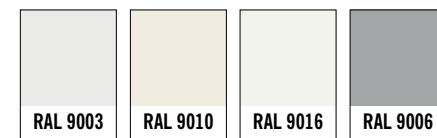
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool slabs** conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS



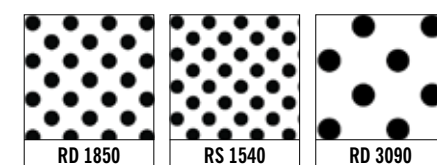
### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



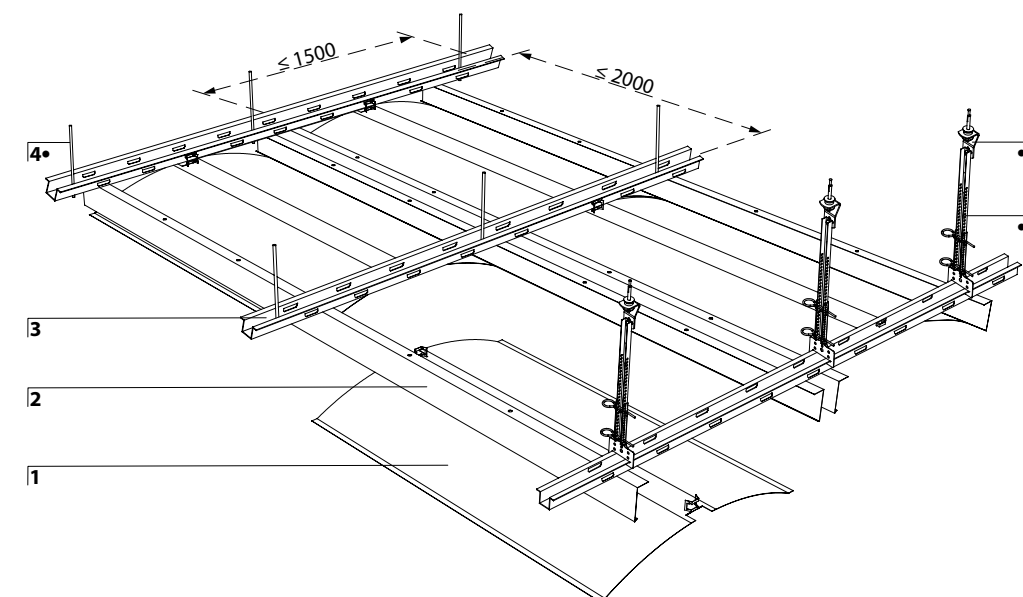
### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
"Non-Combustible" Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 1011 WINGS

### ISOMETRIC DETAIL

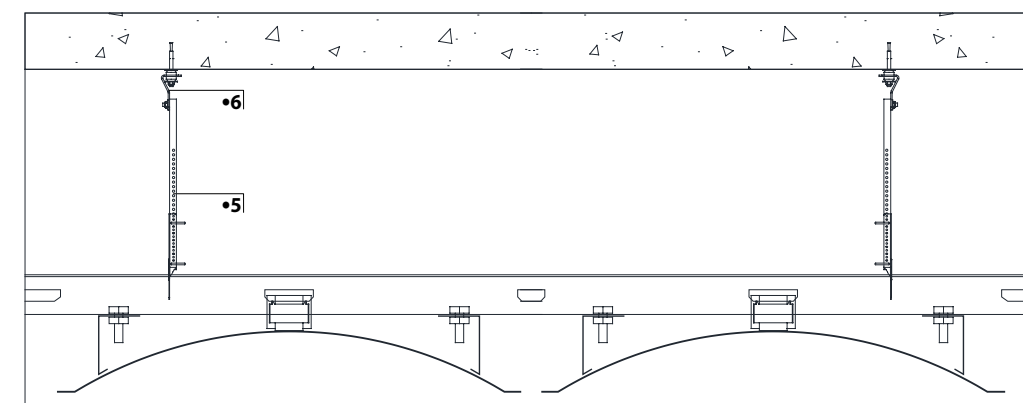


### COMPONENTS

- 1 Panel
- 2 Inverted L Bracket
- 3 Main Carrier
- 4 Threaded Rod
- 5 Rigid Hanging System
- 6 Anti-Vibration Clip

• Optional  
Custom sizes can be offered

### OPTIONAL HANGING SOLUTIONS



### PANEL JOINT DETAIL



CEILING SYSTEMS  
CURVED

# 1020 series WAVES

A multi-dimensional ceiling profile. Can be installed as Island module or wall to wall ceiling. Perforated to provide high acoustic performance. Can be cut to size as per project requirement. Fully demountable. Offered in a wide range of sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

Aluminum or Galvanized Steel  
0.5mm to 0.9mm

+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated

### SIZE

WIDTH (mm): 300-600

LENGTH (mm): 600-2000

### EDGE DETAIL

Square

+ Custom sizes are available upon request

### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))

Polyester Powder Coating: (70μ -80μ)

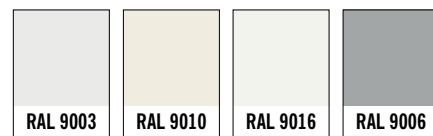
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS



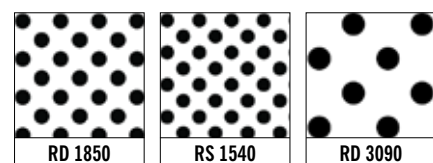
### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



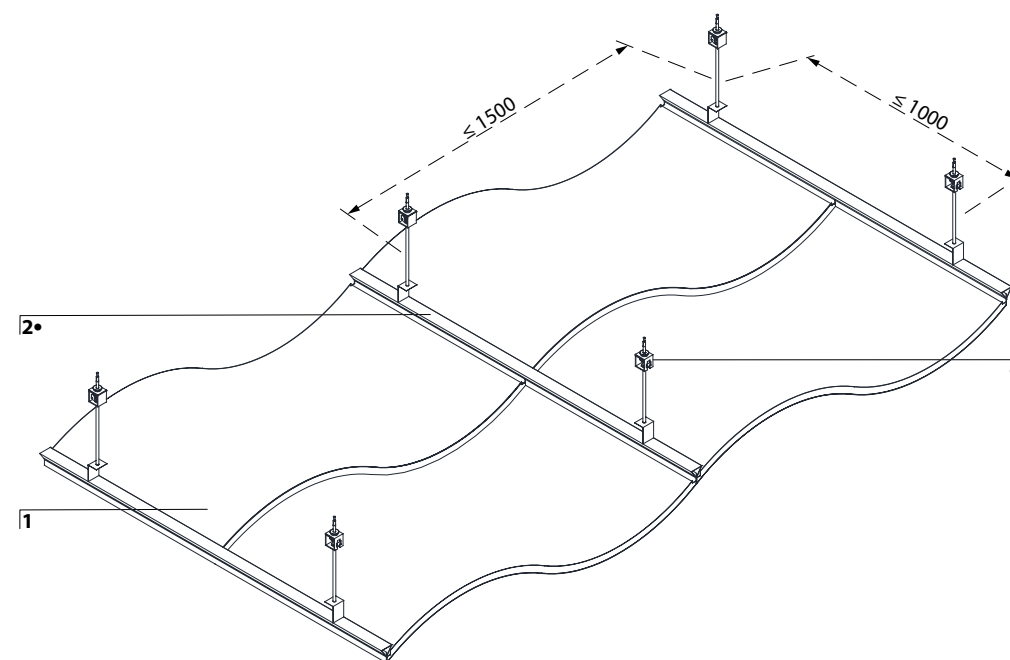
### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
"Non-Combustible" Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 1021 WAVES

### ISOMETRIC DETAIL

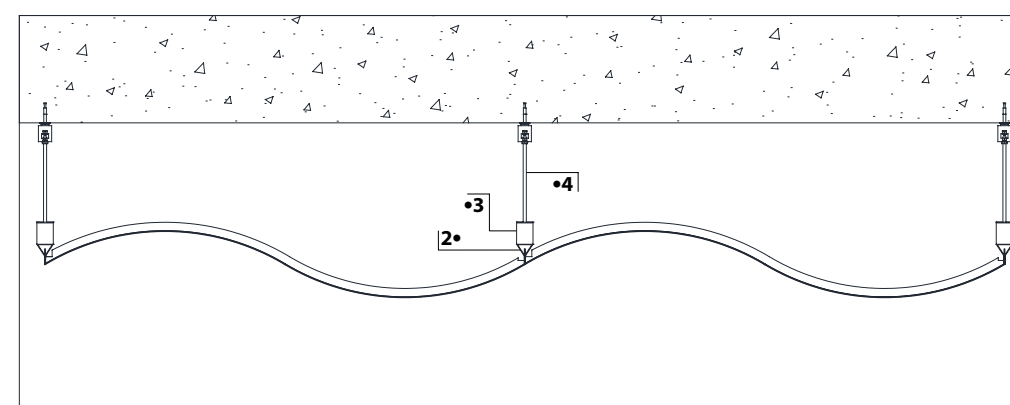


### COMPONENTS

- 1 Panel
- 2.1 Narrow Carrier
- 2.2 Spring Tee Carrier •
- 2.3 Z Carrier •
- 2.4 Torsion Spring Carrier •
- 3 Direct Hanging Bracket •
- 4 Threaded Rod •
- 5 Anti-Vibration Clip (TR) •

• Optional  
Custom sizes can be offered

### OPTIONAL HANGING SOLUTIONS



### PANEL JOINT DETAIL



CEILING SYSTEMS

# MESH

1110 MESH

# 1110 series MESH



A modern looking ceiling profile ideal for open spaces, in airports, metro stations, public transport facilities, & libraries. Can be used as a security ceiling when the mesh is produced in high gauge and proper suspension. Acoustic insulation can provide high acoustics performance. Fully demountable, complying with any accessibility requirements. Offered in a wide range of sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.  
Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

Aluminum or Galvanized Steel:  
0.5mm to 3.0mm

+ Custom thickness are available upon request

### SURFACE FINISH

Expanded  
Woven

### SIZE

WIDTH (mm): 300–1200

LENGTH (mm): 600–2400

+ Custom sizes are available upon request

### COATING

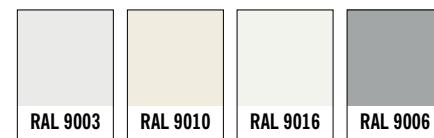
Polyester Coating: ((5μ (Back) + 20μ (Face))  
Polyester Powder Coating: (70μ -80μ)  
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS



## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



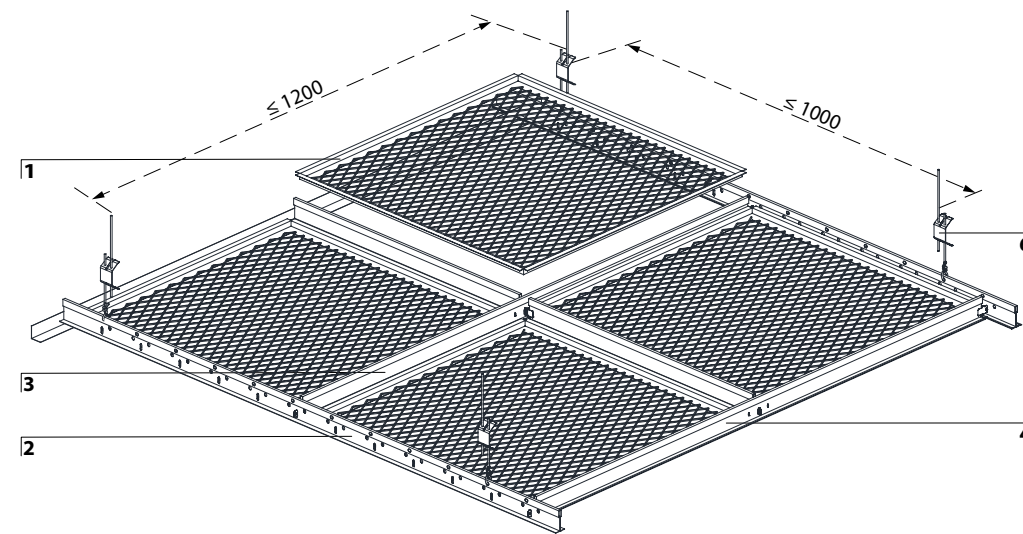
### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

- RAM 1111 MESH L
- RAM 1112 MESH C
- RAM 1113 MESH H
- RAM 1114 MESH T

### ISOMETRIC DETAIL

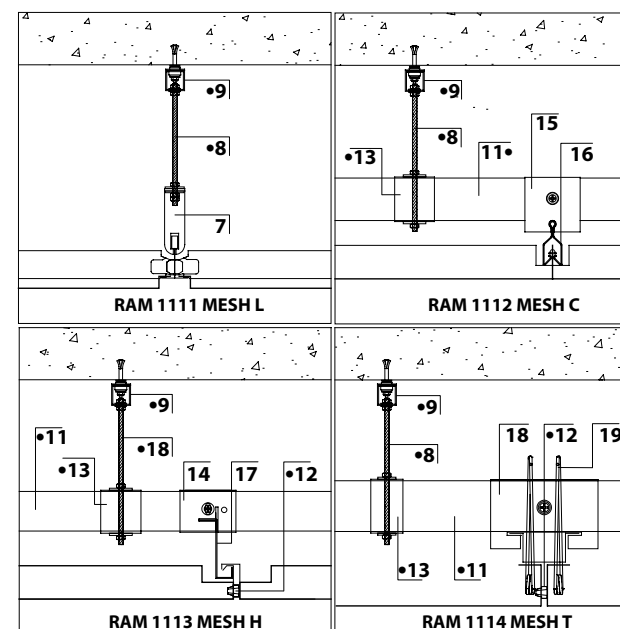


### COMPONENTS

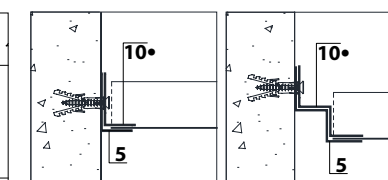
- 1 Panel
- 2 Main Carrier
- 3 Primary Cross Tee
- 4 Secondary Cross Tee
- 5 Wall Trim
- 6 Double Adjustment Clip
- 7 Direct Suspension Bracket
- 8 Threaded Rod
- 9 Anti-Vibration Clip (TR)
- 10 Wedge
- 11 Stabilizer
- 12 Plastic Spacer
- 13 U Bracket
- 14 Stabilizer Bracket
- 15 Suspension Bracket
- 16 Narrow Carrier
- 17 Z Carrier
- 18 TC Bracket
- 19 Torsion Spring Wire

• Optional  
Custom sizes can be offered

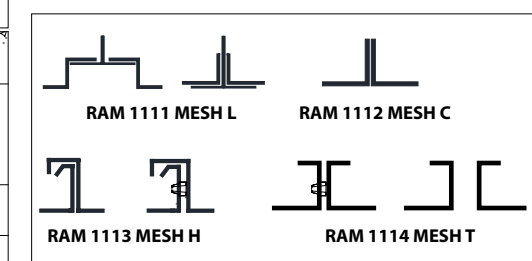
### OPTIONAL HANGING SOLUTIONS



### PERIMETER OPTIONS



### PANEL JOINT DETAIL



CEILING SYSTEMS  
**BESPOKE**

**1210 BESPOKE**

# 1210 series BESPOKE

An open & no limitation design ceiling. Can be custom manufactured to architect specifications. Ideal for complex geometric sizes & shapes. Fully demountable, complying with any accessibility requirements. Offered in a wide range of designs, sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.  
Zinc Plated Galvanized Steel G90 grade.

### THICKNESS

Aluminum or Galvanized Steel (mm):  
0.5 to 2.0  
+ Custom thickness are available upon request

### SURFACE FINISH

Plain  
Perforated

### SIZE

WIDTH (mm): ≤1200  
LENGTH (mm): ≤4000

+ Custom sizes are available upon request

### COATING

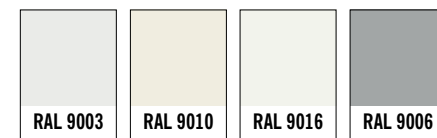
Polyester Coating: ((5μ (Back) + 20μ (Face))  
Polyester Powder Coating: (70μ -80μ)  
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### INSULATION

**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

### COLORS

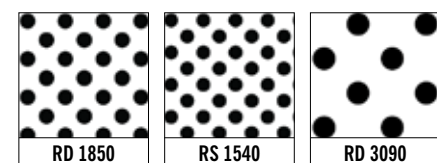


### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available  
+ Special finishes can be provided in lamination, sublimation or coil coating process.

### PERFORATION PATTERNS



+ See page 136 for all other pattern options

## DATA / PERFORMANCE



### ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



### ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



### LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



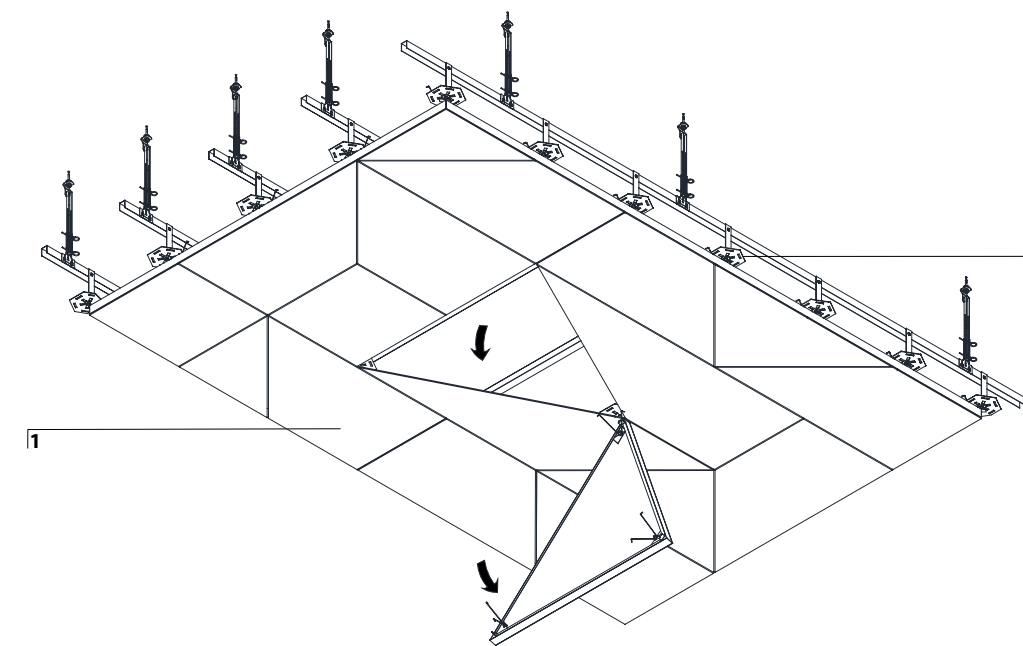
### FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

## RAM 1211 BESPOKE

### ISOMETRIC DETAIL

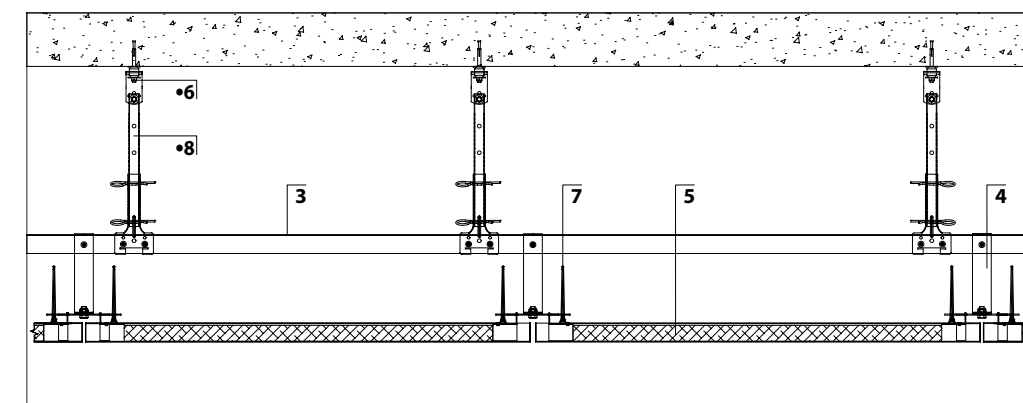


### COMPONENTS

- 1 Panel
- 2 Node Plate
- 3 Stabilizer
- 4 Hanging Bracket
- 5 Rockwool
- 6 Anti-Vibration Clip (TR)
- 7 Torsion Spring Wire
- 8 Rigid Hanging System

• Optional  
Custom sizes can be offered

### SECTION DETAILS



### PANEL JOINT DETAIL



WALL SYSTEMS

# DEMOUNTABLE INTERNAL METAL CLADDING

**2010** INTERNAL WALL COVERING

**2020** INTERNAL COLUMN COVERING

WALL SYSTEMS  
**DEMOUNTABLE INTERNAL  
 METAL CLADDING**  
**2010 series**  
**INTERNAL WALL  
 COVERING**

An ideal solution for internal wall covering. Effective impact protection for high traffic areas. High Acoustic performance. It's strong structure is suitable for integrated TV screens, sign boards & speakers. Progressive accessibility with easy access for services & maintenance without any access tool. Offered in a wide range of designs, sizes, colors & finishes.

**FEATURES**

**MATERIAL**

Aluminum Alloy as per EN AW 3000 or 5000 series.  
 Zinc Plated Galvanized Steel G90 grade.

**THICKNESS**

Aluminum(mm): 1.0 to 3.0  
 Galvanized Steel (mm): 0.75 to 2.0  
 + Custom thickness are available upon request

**SURFACE FINISH**

Plain  
 Perforated

**SIZE**

**HEIGHT (mm):** 300-750mm  
**LENGTH (mm):**  
 RAM 2011, 2012, 2013:  
 ≤3000 (Aluminum)  
 ≤ 2000 (Galvanized Steel)  
 RAM 2014:  
 ≤ 2000 (Galvanized Steel)  
 + Custom sizes are available upon request

**COATING**

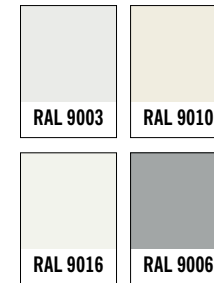
Polyester Powder Coating:  
 (70μ -80μ)  
 + High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

**INSULATION**

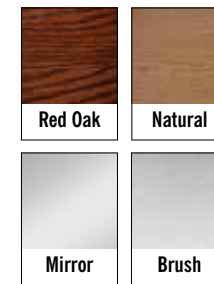
**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

**COLOR / FINISH**

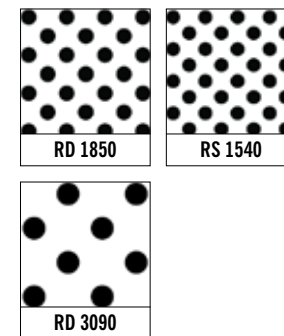


**SPECIAL FINISHES**

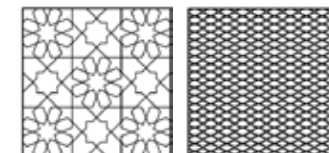


+ See page 144 for additional colors & special finishes available  
 + Special finishes can be provided in lamination, sublimation or coil coating process.

**PERFORATION PATTERNS**



**SURFACE PATTERNS**



+ See page 136 for all other pattern options

**DATA / PERFORMANCE**



**ACOUSTICS**  
 Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.  
 Maximum NRC achieved with Acoustic Black fleece – NRC 0.75  
 Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00



**ANTI BACTERIAL COATING**  
 Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



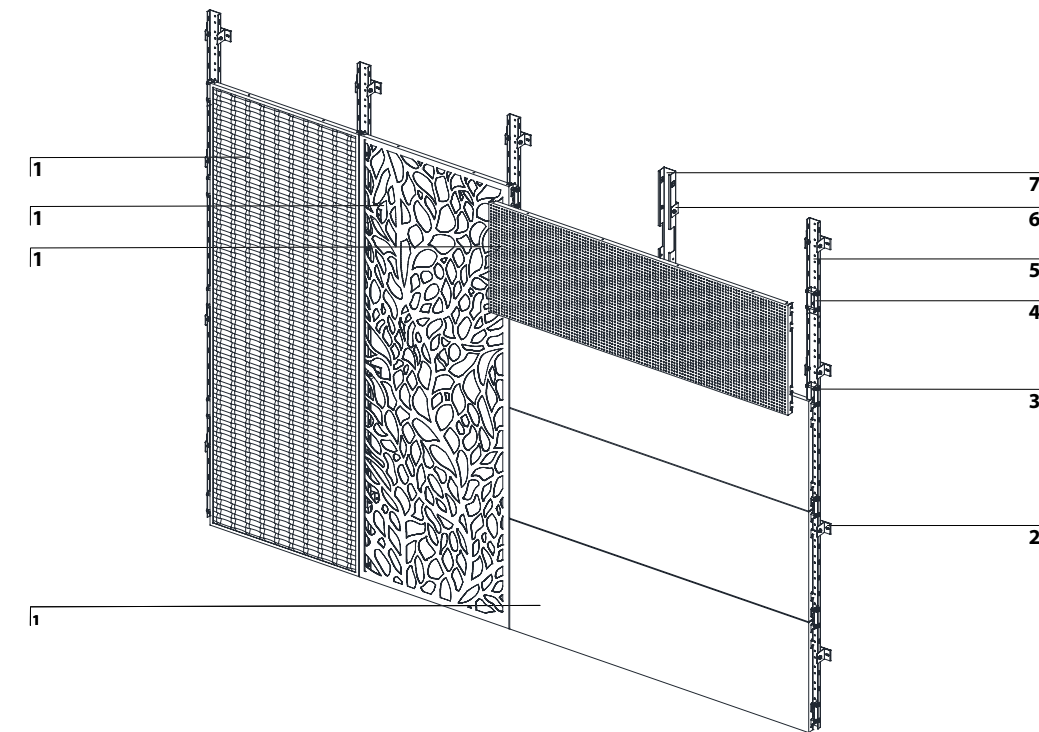
**LIGHT REFLECTANCE (LR)**  
 Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



**FIRE PERFORMANCE**  
 Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
 "Non-Combustible" Material tested as per BS 476: Part4: 1970  
 Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

**RAM 2011 SOLID PLAIN**  
**RAM 2012 PERFORATED**  
**RAM 2013 EXPANDED METAL MESH**  
**RAM 2014 ARCHITECTURAL FINISH**

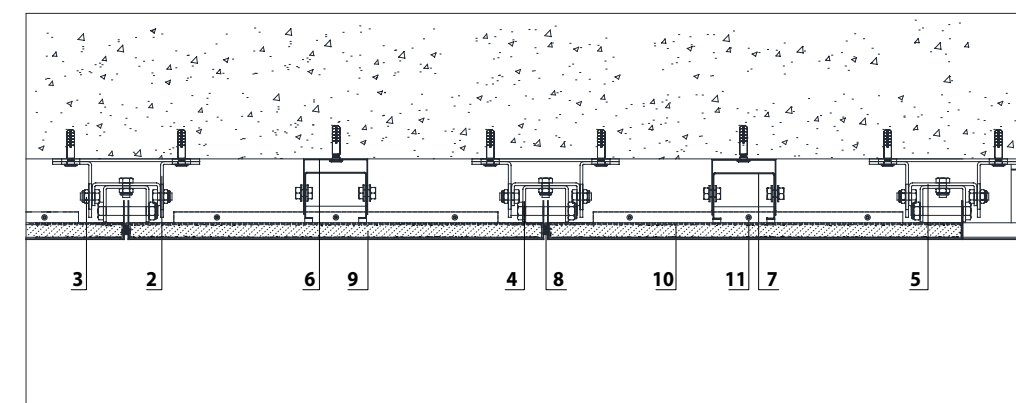
**ISOMETRIC DETAIL**



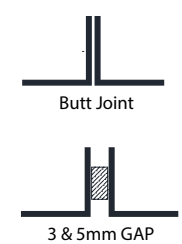
**COMPONENTS**

- 1 Panel
- 2 Omega Profile
- 3 Bolts & Nuts
- 4 Carrier Bracket
- 5 Adjustable C Channel
- 6 Reinforcement Bracket
- 7 Reinforcement Channel
- 8 Self-Adhesive Tape
- 9 Mineral Fiber Board
- 10 Backing Panel
- 11 Blind Rivet

**SECTION DETAIL**



**PANEL JOINT DETAIL**





# 2020 series

## INTERNAL COLUMN COVERING

An ideal solution for internal wall covering. Effective impact protection for high traffic areas. It's strong structure is suitable for integrated TV screens, sign boards & speakers. Progressive accessibility. Easy access for services & maintenance without any access tool. Offered in a wide range of designs, sizes, colors & finishes.

### FEATURES

#### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.  
 Zinc Plated Galvanized Steel G90 grade.

#### THICKNESS

Aluminum(mm): 1.0 to 3.0  
 Galvanized Steel (mm): 0.75 to 2.0  
 + Custom thickness are available upon request

#### SURFACE FINISH

Plain  
 Perforated

#### SIZE

HEIGHT (mm): 300-750  
 LENGTH (mm):  
 RAM 2021, 2022, 2023:  
 ≤3000 (Aluminum)  
 ≤ 2000 (Galvanized Steel)  
 RAM 2024:  
 ≤ 2000 (Galvanized Steel)  
 + Custom sizes are available upon request

#### COATING

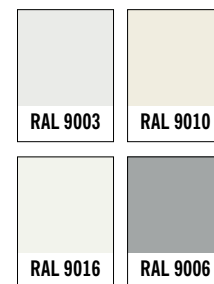
Polyester Powder Coating:  
 (70μ -80μ)  
 + High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### INSULATION

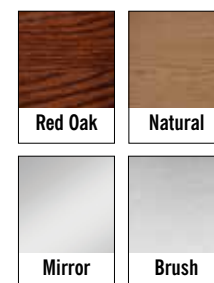
**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

#### COLOR / FINISH

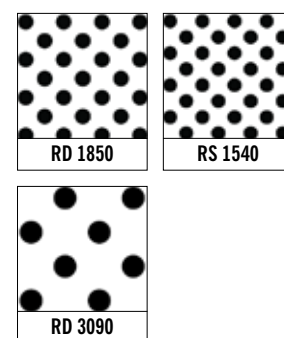


#### SPECIAL FINISHES

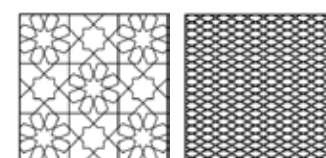


+ See page 144 for additional colors & special finishes available  
 + Special finishes can be provided in lamination, sublimation or coil coating process.

#### PERFORATION PATTERNS



#### SURFACE PATTERNS



+ See page 136 for all other pattern options

### DATA / PERFORMANCE



**ACOUSTICS**  
 Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.  
 Maximum NRC achieved with Acoustic Black fleece – NRC 0.75  
 Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00



**ANTI BACTERIAL COATING**  
 Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



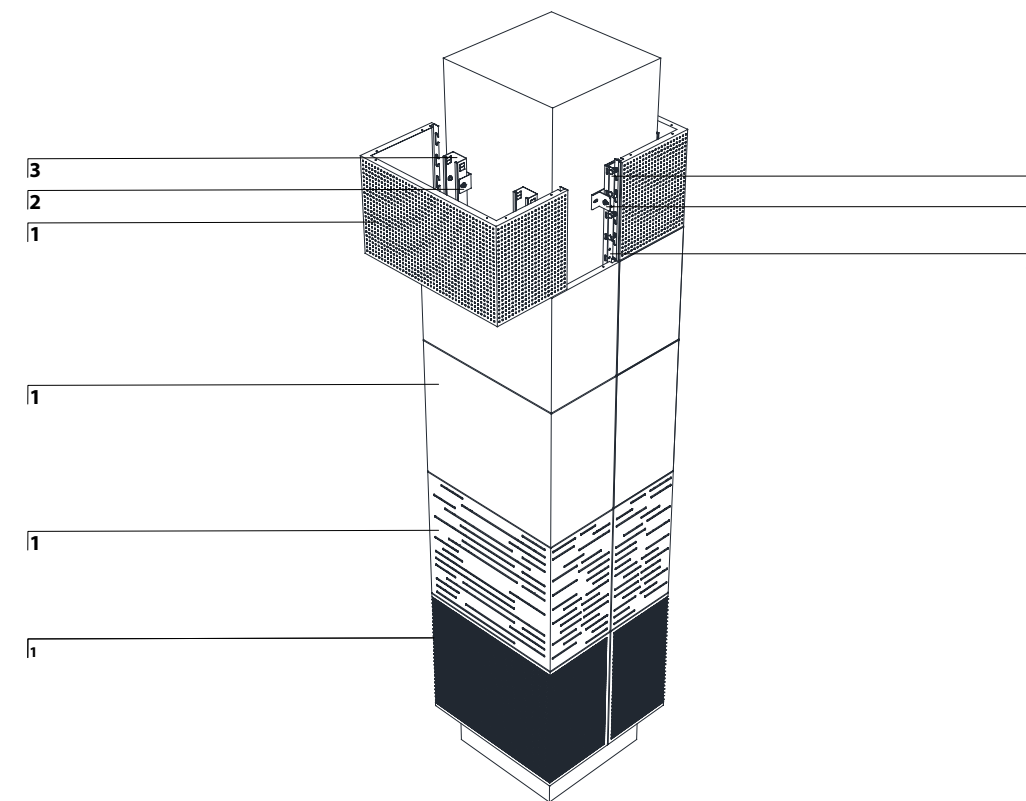
**LIGHT REFLECTANCE (LR)**  
 Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



**FIRE PERFORMANCE**  
 Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
 "Non-Combustible" Material tested as per BS 476: Part4: 1970  
 Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

### RAM 2021 SOLID PLAIN RAM 2022 PERFORATED RAM 2023 EXPANDED METAL MESH RAM 2024 ARCHITECTURAL FINISH

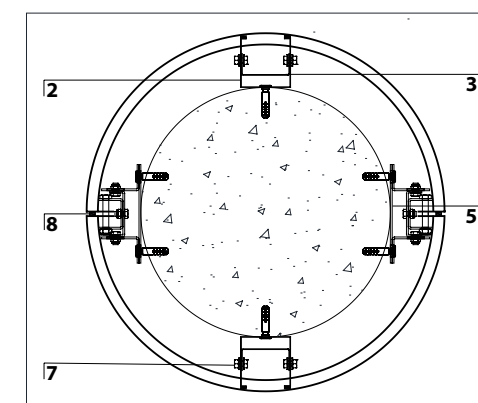
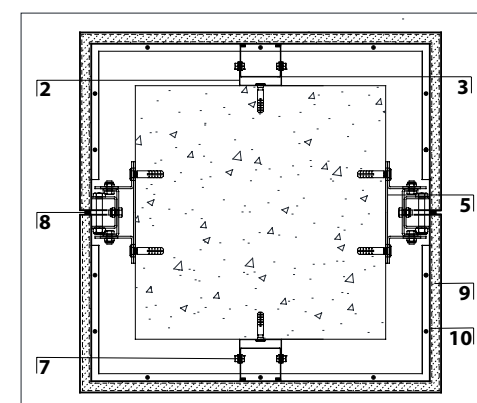
#### ISOMETRIC DETAIL



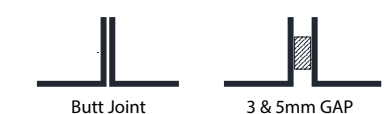
#### COMPONENTS

- 1 Panel
- 2 Reinforcement Bracket
- 3 Reinforcement Channel
- 4 Adjustable C Channel
- 5 Omega Profile
- 6 Carrier Bracket
- 7 Bolts & Nuts
- 8 Self-Adhesive Tape
- 9 Mineral Fiber Board
- 10 Backing Panel

#### SECTION DETAILS



#### PANEL JOINTS DETAIL





WALL SYSTEMS

# EXTERNAL METAL CLADDING

**2110** EXTERNAL WALL COVERING

**2120** EXTERNAL COLUMN COVERING

WALL SYSTEMS  
EXTERNAL METAL CLADDING  
**2110 series**  
EXTERNAL WALL  
COVERING

An ideal solution for external wall covering. Its strong structure is suitable for integrated TV screens, sign boards & speakers. Progressive accessibility. Offered in a wide range of designs, sizes, colors, perforations & finishes.

**FEATURES**

**MATERIAL**

Aluminum Alloy as per EN AW 3000 or 5000 series.  
Zinc Plated Galvanized Steel G90 grade.

**THICKNESS**

Aluminum (mm): 1.0-3.0  
+ Custom thickness are available upon request

**SURFACE FINISH**

Plain  
Perforated

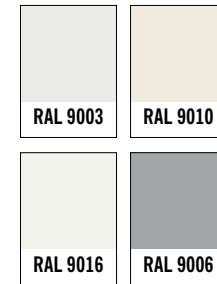
**SIZE**

HEIGHT (mm): 300-1500  
LENGTH (mm): up to 3000  
+ Custom sizes are available upon request

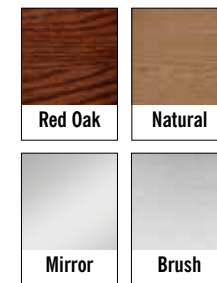
**COATING**

Polyester Powder Coating: (70µ -80µ)  
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

**COLOR / FINISH**

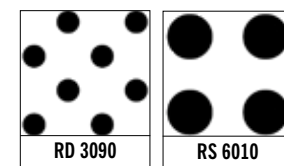


**SPECIAL FINISHES**

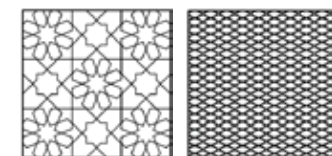


+ See page 144 for additional colors & special finishes available  
+ Special finishes can be provided in lamination, sublimation or coil coating process.

**PERFORATION PATTERNS**



**SURFACE PATTERNS**



+ See page 136 for all other pattern options

**DATA / PERFORMANCE**



**WIND RESISTANCE**  
Complies with CWCT Sec 1,12:2005 Wind Resistance—Serviceability & Safety, Test Report Ref: TBWIC/RH128

**AIR PERMEABILITY**

Complies with CWCT Sec 5:2005 Air Leakage, Test Report Ref: TBWIC/RH128



**LIGHT REFLECTANCE (LR)**  
Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



**WATER RESISTANCE**  
Complies with CWCT Sec 6,7:2005 Water Penetration – Static Method & Dynamic Aero Engine Test, Test Report Ref: TBWIC/RH128



**IGNITION PERFORMANCE FOR PLASTICS**  
Complies with ASTM D1929-16 Standard Test Method for Determining Ignition Temperature of Plastics, Test Report Ref: Intertek/103416370MID-001

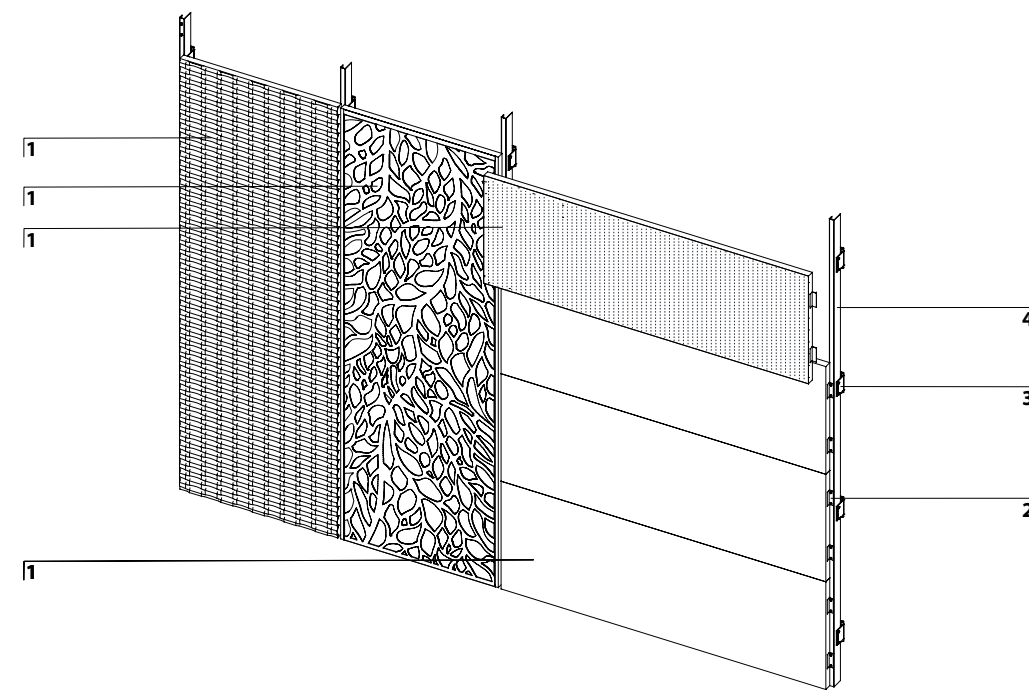


**FIRE PERFORMANCE**  
Complies with UNE-EN 13501-1:2007 +A1:2010 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests, Test Report Ref: APPLUS/18/16611-542 Part 2

Complies with NFPA 285-2012 Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components, Test Report Ref: TBWIC/RK094 (Rev.01)

**RAM 2111 SOLID PLAIN**  
**RAM 2112 PERFORATED**  
**RAM 2113 EXPANDED METAL MESH**  
**RAM 2114 ARCHITECTURAL FINISH**

**ISOMETRIC DETAIL**

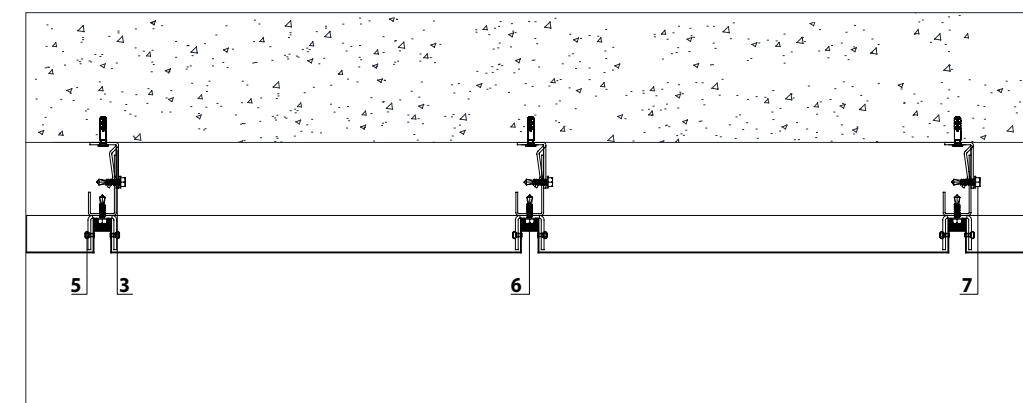


**COMPONENTS**

- 1 Panel
- 2 L Angle Profile
- 3 Wall Bracket
- 4 J Profile
- 5 Blind Rivet
- 6 Fire Rated Silicone Sealant
- 7 Self Drilling Screw

Custom sizes can be offered

**SECTION DETAILS**



**PANEL JOINTS DETAILS**



WALL SYSTEMS  
EXTERNAL METAL CLADDING  
**2120 series**  
EXTERNAL COLUMN  
COVERING

An ideal solution for external wall covering. Its strong structure is suitable for integrated TV screens, sign boards & speakers. Progressive accessibility. Offered in a wide range of designs, sizes, colors, perforations & finishes.

**FEATURES**

**MATERIAL**

Aluminum Alloy as per EN AW 3000 or 5000 series.  
Zinc Plated Galvanized Steel G90 grade.

**THICKNESS**

Aluminum (mm): 1.0-3.0  
+ Custom thickness are available upon request

**SURFACE FINISH**

Plain  
Perforated

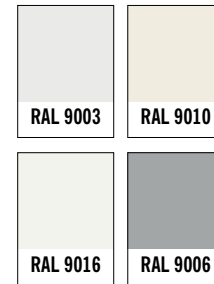
**SIZE**

HEIGHT (mm): 300-1500  
LENGTH (mm): up to 3000  
+ Custom sizes are available upon request

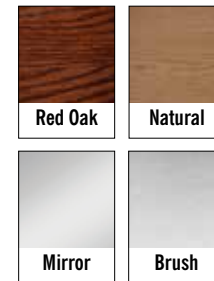
**COATING**

Polyester Powder Coating: (70µ -80µ)  
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

**COLOR / FINISH**

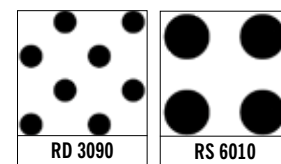


**SPECIAL FINISHES**

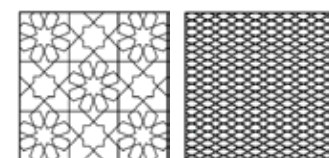


+ See page 144 for additional colors & special finishes available  
+ Special finishes can be provided in lamination, sublimation or coil coating process.

**PERFORATION PATTERNS**



**SURFACE PATTERNS**



+ See page 136 for all other pattern options

**DATA / PERFORMANCE**

**WIND RESISTANCE**  
Complies with CWCT Sec 1,12:2005 Wind Resistance—Serviceability & Safety, Test Report Ref: TBWIC/RH128

**AIR PERMEABILITY**  
Complies with CWCT Sec 5:2005 Air Leakage, Test Report Ref: TBWIC/RH128

**LIGHT REFLECTANCE (LR)**  
Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.

**WATER RESISTANCE**  
Complies with CWCT Sec 6,7:2005 Water Penetration – Static Method & Dynamic Aero Engine Test, Test Report Ref: TBWIC/RH128

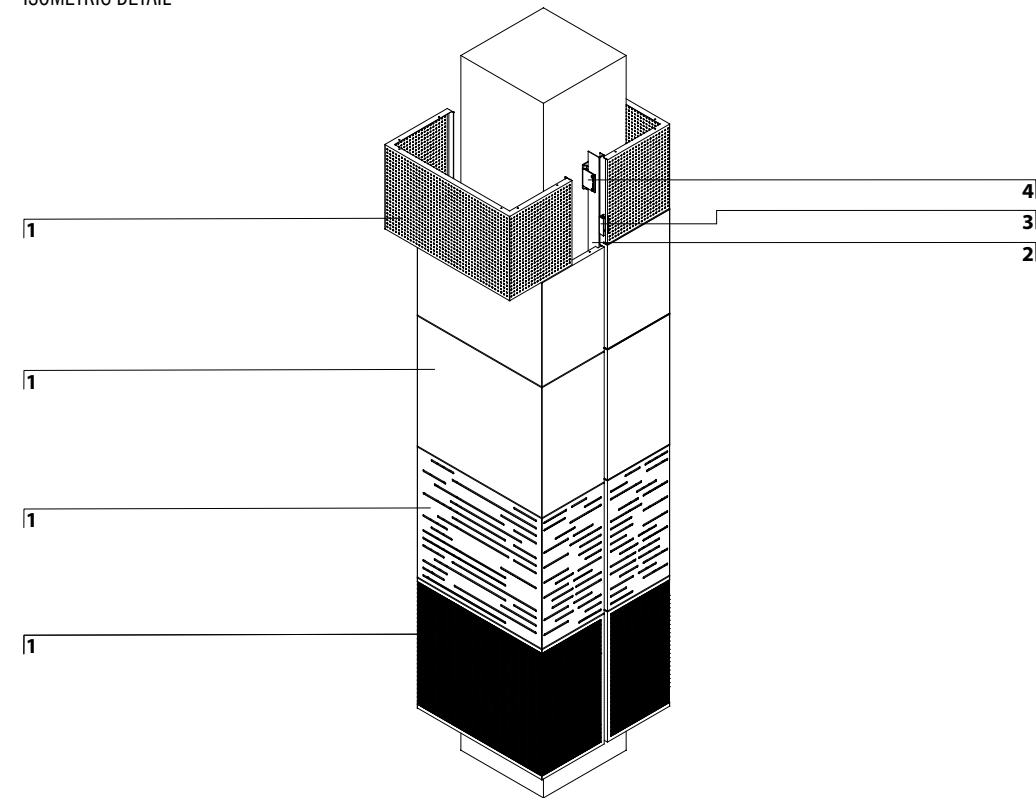
**IGNITION PERFORMANCE FOR PLASTICS**  
Complies with ASTM D1929-16 Standard Test Method for Determining Ignition Temperature of Plastics, Test Report Ref: Intertek/103416370MID-001

**FIRE PERFORMANCE**  
Complies with UNE-EN 13501-1:2007 +A1:2010 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests, Test Report Ref: APPLUS/18/16611-542 Part 2

Complies with NFPA 285-2012 Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components, Test Report Ref: TBWIC/RK094 (Rev.01)

**RAM 2121 SOLID PLAIN**  
**RAM 2122 PERFORATED**  
**RAM 2123 EXPANDED METAL MESH**  
**RAM 2124 ARCHITECTURAL FINISH**

**ISOMETRIC DETAIL**

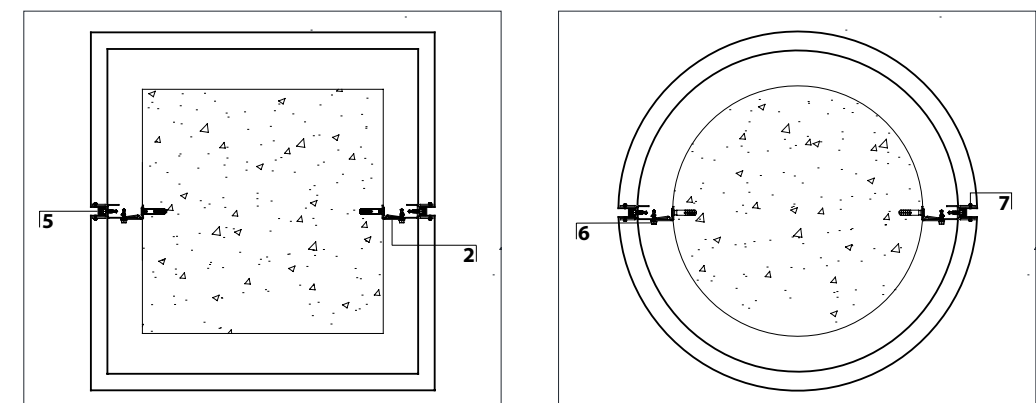


**COMPONENTS**

- 1 Panel
- 2 J Profile
- 3 L Angle Profile
- 4 Wall Bracket
- 5 Fire Rated Silicone Sealant
- 6 Self Drilling Screw
- 7 Blind Rivet


Custom sizes can be offered

**SECTION DETAILS**



**PANEL JOINTS DETAIL**





WALL SYSTEMS

# BESPOKE WALL CLADDINGS

2210 BESPOKE WALL CLADDINGS

WALL SYSTEMS  
 BESPOKE WALL CLADDINGS  
**2210 series**  
 BESPOKE  
 WALL CLADDING

An open & no limitation design ceiling. Can be custom manufactured to architect specifications. Ideal for complex geometric sizes & shapes. Effective impact protection for high traffic areas. High Acoustic performance. It's strong structure is suitable for integrated TV screens, sign boards & speakers. Progressive accessibility with easy access for services & maintenance without any access tool. Offered in a wide range of designs, sizes, colors & finishes.

**FEATURES**

**MATERIAL**

Aluminum Alloy as per EN AW 3000 or 5000 series.  
 Zinc Plated Galvanized Steel G90 grade.

**THICKNESS**

Aluminum or Galvanized Steel (mm): 1.0 to 3.0  
 + Custom thickness are available upon request

**SURFACE FINISH**

Plain  
 Perforated

**SIZE**

**WIDTH (mm):** ≤2000  
**LENGTH (mm):**  
 ≤3000 (Aluminum)  
 ≤2000 (Galvanized Steel)  
 + Custom sizes are available upon request

**COATING**

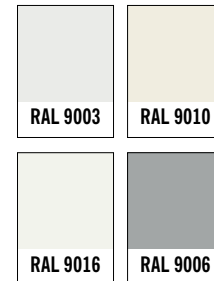
Polyester Powder Coating: (70μ -80μ)  
 + High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

**INSULATION**

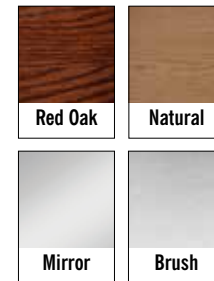
**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

**COLOR / FINISH**



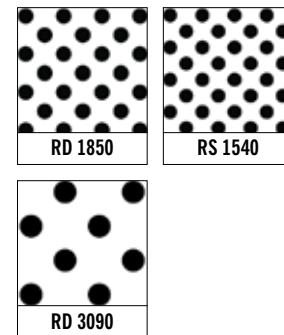
**SPECIAL FINISHES**



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

**PERFORATION PATTERNS**



+ See page 136 for all other pattern options

**DATA / PERFORMANCE**



**ACOUSTICS**  
 Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.  
 Maximum NRC achieved with Acoustic Black fleece – NRC 0.75  
 Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00



**ANTI BACTERIAL COATING**  
 Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



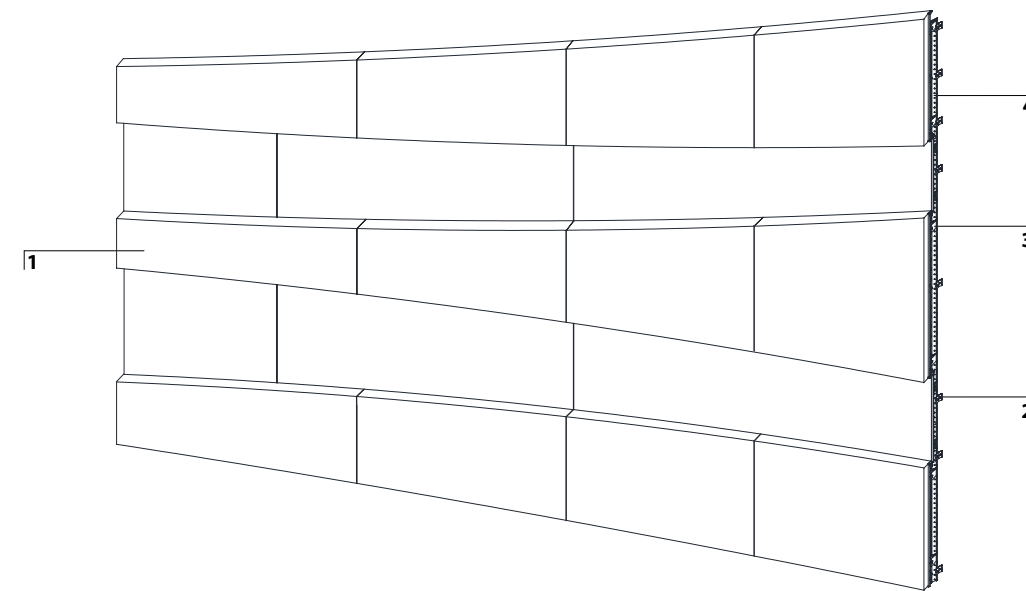
**LIGHT REFLECTANCE (LR)**  
 Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



**FIRE PERFORMANCE**  
 Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
 "Non-Combustible" Material tested as per BS 476: Part4: 1970  
 Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

**RAM 2211 BESPOKE WALL PANEL**

**ISOMETRIC DETAIL**

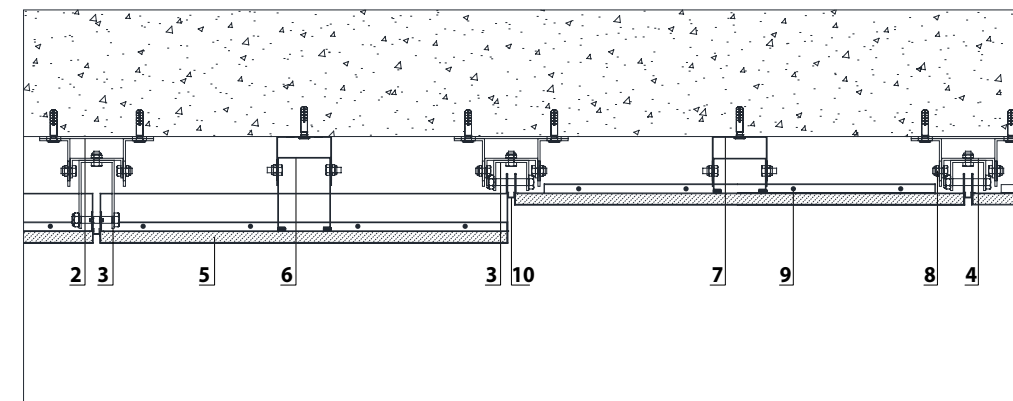


**COMPONENTS**

- 1 Panel
- 2 Omega Profile
- 3 Carrier Bracket
- 4 Adjustable C Channel
- 5 Mineral Fiber Board
- 6 Reinforcement Channel
- 7 Reinforcement Bracket
- 8 Bolts & Nuts
- 9 Blind Rivet
- 10 U Profile

Custom sizes can be offered

**SECTION DETAILS**



**PANEL JOINTS DETAIL**





SHADE CONTROL  
**SHADE CONTROL**

**3010** SHADE CONTROL

# SHADE CONTROL

# SHADE CONTROL

## 3010 SHADE CONTROL

For a modern look and an ideal solution for light weight canopies. Structurally rigid, high quality paint with UV resistance. A hollow profile that reduces sunlight transmission. For use in parking, ground, stadium, & other open areas. Offered in a wide range of sizes, colors & finishes.

### FEATURES

#### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.  
Zinc Plated Galvanized Steel G90 grade.

#### THICKNESS

Aluminum (mm): 0.5 to 0.6  
Galvanized Steel (mm): 0.45 to 0.5  
+ Custom thickness are available upon request

#### SURFACE FINISH

Plain

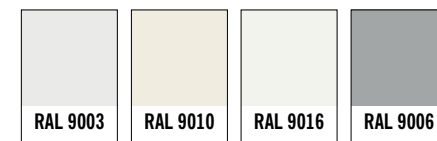
#### SIZE

HEIGHT (mm): 300  
WIDTH (mm): 100  
LENGTH (mm): 3000  
SPACING (mm): 50/100/150  
+ Custom sizes are available upon request

#### COATING

Polyester Coating: ((5μ (Back) + 20μ (Face))  
Polyester Powder Coating: (70μ -80μ)  
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

#### COLORS

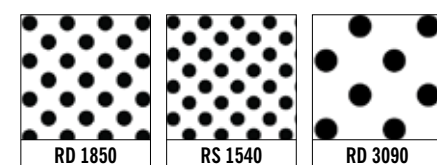


#### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available  
+ Special finishes can be provided in lamination, sublimation or coil coating process.

#### PERFORATION PATTERNS



+ See page 136 for all other pattern options

### DATA / PERFORMANCE



#### FIRE PERFORMANCE

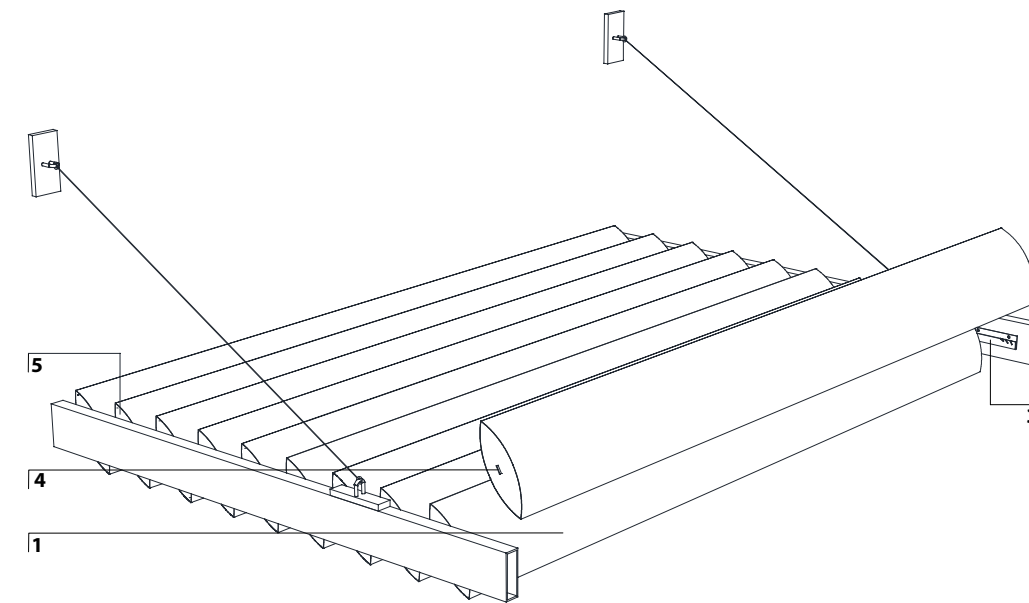
Surface Spread of flame Class 1  
tested as per BS 476: Part 7: 1997

"Non-Combustible" Material tested as  
per BS 476: Part4: 1970

Flame Spread and Smoke  
Development Index tested as per  
ASTM E84 (Class 1 or A)

### RAM 3011 SHADE CONTROL

#### ISOMETRIC DETAIL

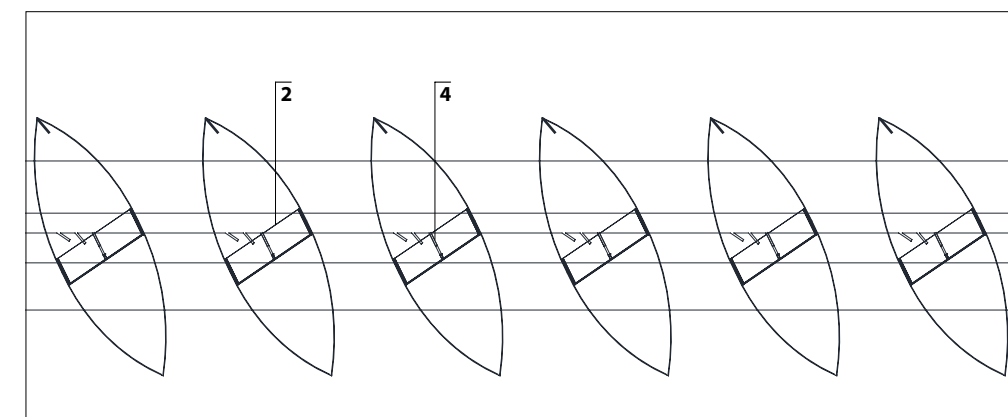


#### COMPONENTS

- 1 Baffle
- 2 U Channel
- 3 Carrier Profile
- 4 L Hook Profile
- 5 End Cap

Custom sizes can be offered

#### SECTION DETAIL







# ARCHITECTURAL ELEMENTS

**5000** METAL BULKHEAD

**5100** METAL COVE LIGHT

**5200** METAL SKIRTING

ARCHITECTURAL ELEMENTS  
**5010 series**  
 METAL  
 BULKHEAD

Ideal for connecting ceilings with other building elements.  
 Can be manufactured to integrate light fittings, AC grills, and other MEP services. Offered in a wide range of designs, sizes, colors & finishes.

**FEATURES**

**MATERIAL**

Aluminum Alloy as per EN AW 3000 or 5000 series.

Zinc Plated Galvanized Steel G90 grade.

**THICKNESS**

Aluminum or Galvanized Steel (mm): 0.6 to 3.0

+ Custom thickness are available upon request

**SURFACE FINISH**

Plain  
 Perforated

**SIZE**

LENGTH (mm): ≤3000

WIDTH (mm): 300 to 1000

+ Custom sizes are available upon request

**COATING**

Polyester Coating:  
 ((5μ (Back) + 20μ (Face))

Polyester Powder Coating:  
 (70μ -80μ)

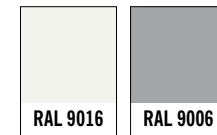
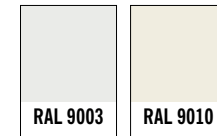
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

**INSULATION**

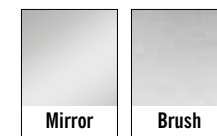
**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

**COLOR / FINISH**



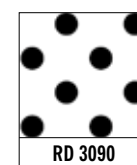
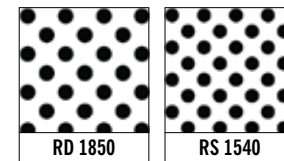
**SPECIAL FINISHES**



+ See page 144 for additional colors & special finishes available

+ Special finishes can be provided in lamination, sublimation or coil coating process.

**PERFORATION PATTERNS**



+ See page 136 for all other pattern options

**DATA / PERFORMANCE**



**ACOUSTICS**

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00



**ANTI BACTERIAL COATING**

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



**LIGHT REFLECTANCE (LR)**

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



**FIRE PERFORMANCE**

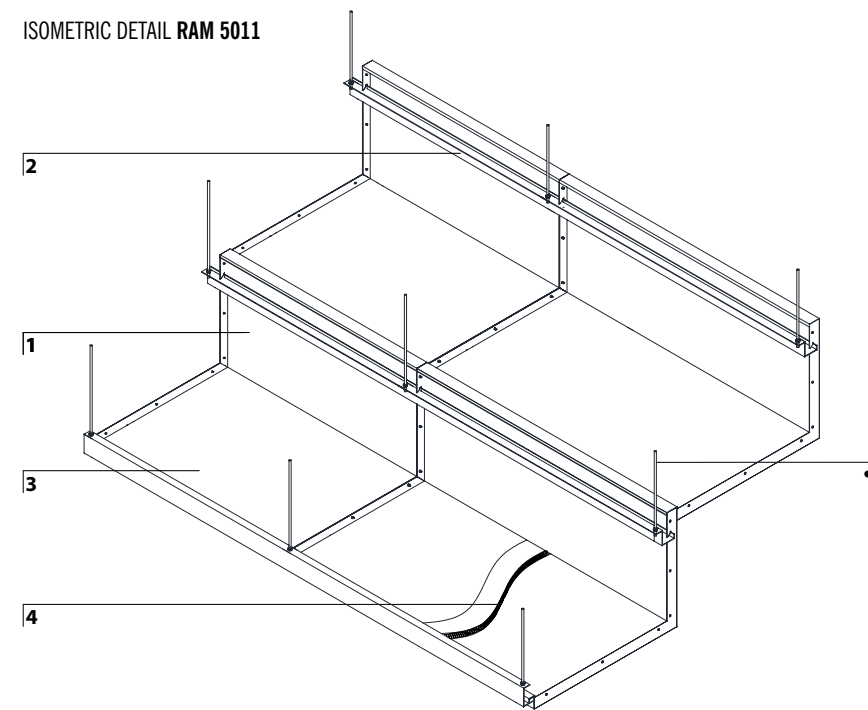
Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997

“Non-Combustible” Material tested as per BS 476: Part4: 1970

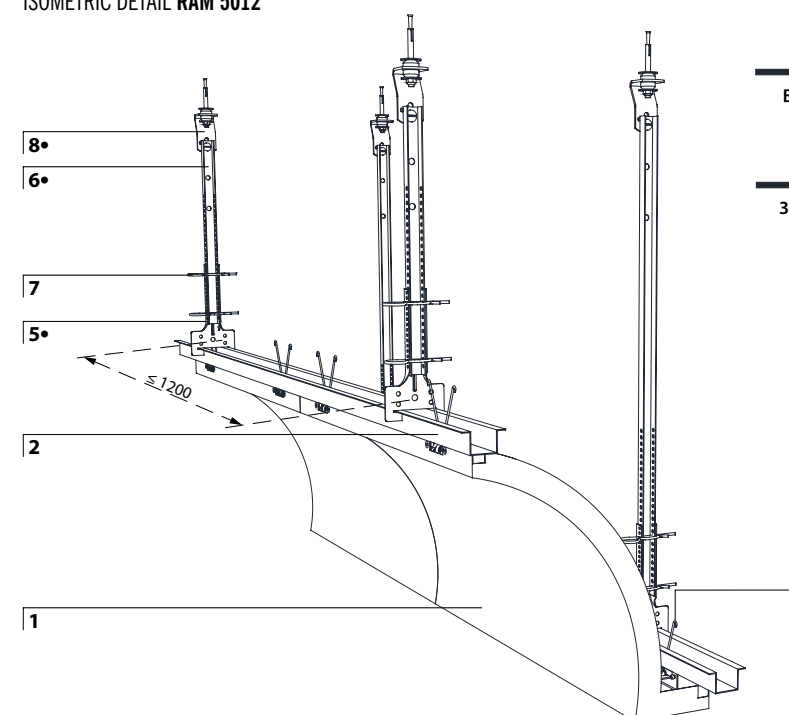
Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

**RAM 5011 METAL BULKHEAD**  
**RAM 5012 CURVED METAL BULKHEAD**

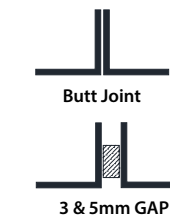
**ISOMETRIC DETAIL RAM 5011**



**ISOMETRIC DETAIL RAM 5012**



**PANEL JOINT DETAIL**



**COMPONENTS**

**RAM 5011**

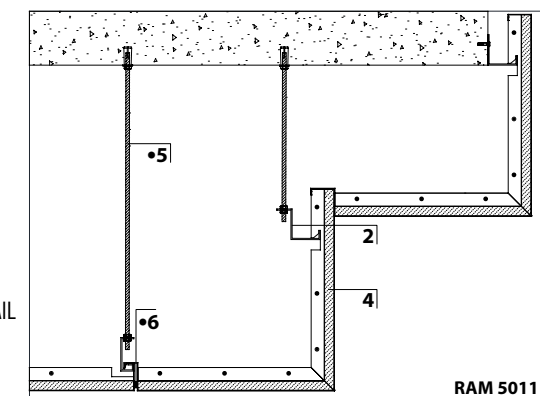
- 1 Panel
- 2 J Profile
- 3 Backing Panel
- 4 Fiber Board
- 5 Threaded Rod •
- 6 Self-Adhesive Tape •

**RAM 5012**

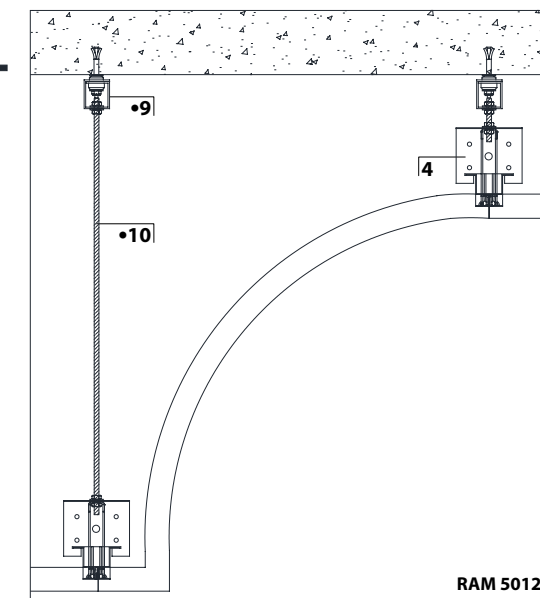
- 1 Panel
- 2 Torsion Spring Carrier
- 3 Torsion Spring Wire
- 4 CT Bracket
- 5 Lower Ridge Hanger •
- 6 Upper Ridge Hanger •
- 7 Locking Clip
- 8 Anti-Vibration Clip (RH) •
- 9 Anti-Vibration Clip (TR) •
- 10 Threaded Rod •

• Optional

**SECTION DETAIL**



**OPTIONAL HANGING SOLUTION**



ARCHITECTURAL ELEMENTS  
**5110 series**  
 METAL COVE  
 LIGHT

Ideal for integrating light fixtures. Can be custom manufactured to architect specifications in a variety of shapes & depths for optimal light reflection. Offered in a wide range of designs, sizes, colors & finishes.

**FEATURES**

**MATERIAL**

Aluminum Alloy as per EN AW 3000 or 5000 series.  
 Zinc Plated Galvanized Steel G90 grade.

**THICKNESS**

Aluminum or Galvanized Steel (mm): 0.5 to 1.00  
 + Custom thickness are available upon request

**SURFACE FINISH**

Plain  
 Perforated

**SIZE**

LENGTH (mm): ≤3000  
 WIDTH (mm): ≤300  
 + Custom sizes are available upon request

**COATING**

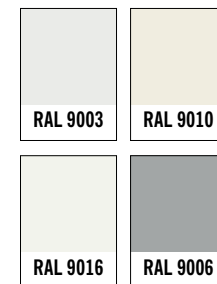
Polyester Coating:  
 ((5μ (Back) + 20μ (Face))  
 Polyester Powder Coating:  
 (70μ -80μ)  
 + High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

**INSULATION**

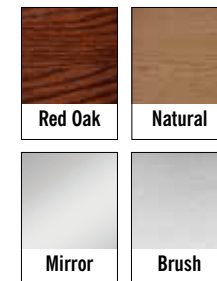
**Acoustic Black Fleece** is non-flammable and meets the standard DIN 4102 / B1. Classification A1 according to EN 13501-1.

**Rockwool** slabs conforming to ASTM C612 and equivalent BS 3958-5 are provided for acoustic insulation.

**COLOR / FINISH**

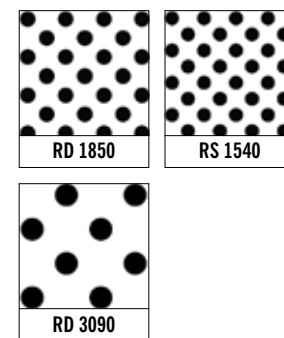


**SPECIAL FINISHES**



+ See page 144 for additional colors & special finishes available  
 + Special finishes can be provided in lamination, sublimation or coil coating process.

**PERFORATION PATTERNS**



+ See page 136 for all other pattern options

**DATA / PERFORMANCE**



**ACOUSTICS**  
 Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.  
 Maximum NRC achieved with Acoustic Black fleece – NRC 0.75  
 Maximum NRC achieved with Acoustic Black Fleece and Rockwool Insulation- NRC 1.00



**ANTI BACTERIAL COATING**  
 Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



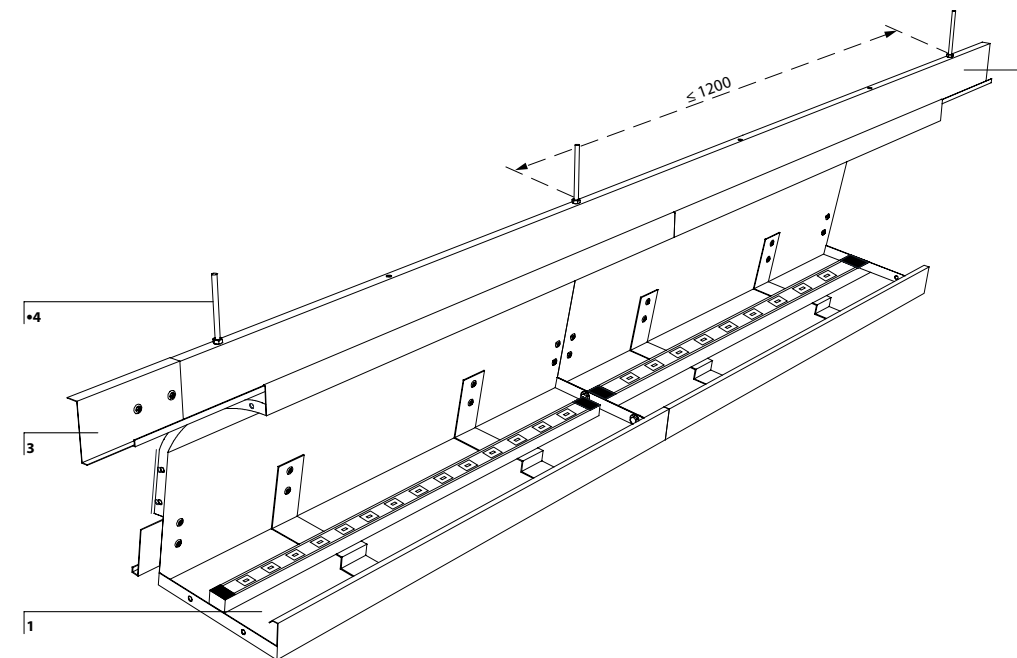
**LIGHT REFLECTANCE (LR)**  
 Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



**FIRE PERFORMANCE**  
 Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997  
 "Non-Combustible" Material tested as per BS 476: Part4: 1970  
 Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

**RAM 5111 METAL LIGHT REFLECTOR**

ISOMETRIC DETAIL

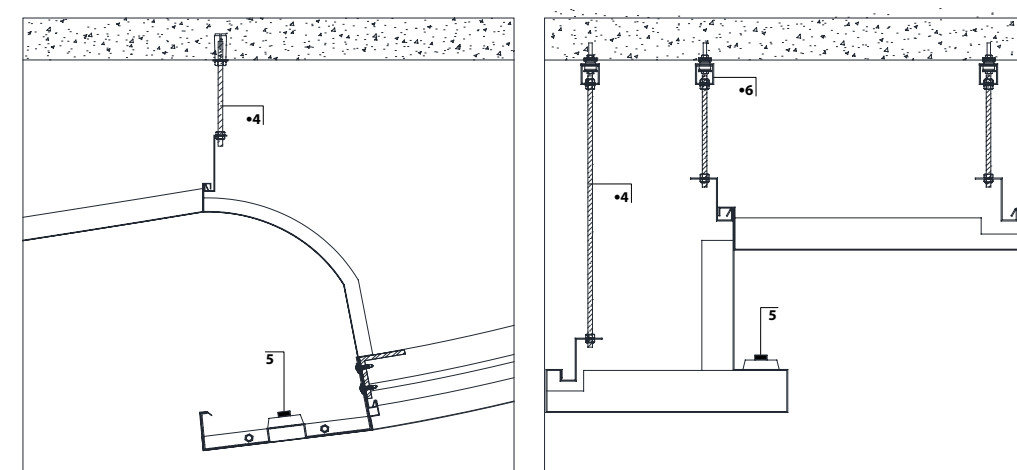


**COMPONENTS**

- 1 Panel
- 2 J Carrier Profile
- 3 C Splice
- 4 Threaded Rod
- 5 Lighting Fixture (By Other)
- 6 Anti-Vibration Clip (TR)

Custom sizes can be offered

SECTION DETAILS



PANEL JOINT DETAIL



# 5210 series METAL SKIRTING

Used for walls in a variety of finishes such as aluminum anodized, stainless steel, & powder coated aluminum. Can be manufactured in various heights & shapes. Offered in a wide range of designs, sizes, colors & finishes.

## FEATURES

### MATERIAL

Aluminum Alloy as per EN AW 3000 or 5000 series.  
Zinc Plated Galvanized Steel G90 grade.  
Stainless Steel grade SS304 or SS316L

### THICKNESS

Aluminum, Galvanized Steel or Stainless Steel (mm): 0.6 to 2.0  
+ Custom thickness are available upon request

### SURFACE FINISH

Plain

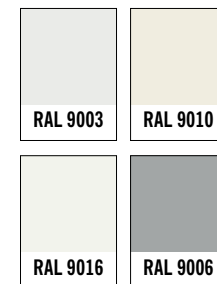
### SIZE

LENGTH (mm): ≤3000  
WIDTH (mm): ≤300  
+ Custom sizes are available upon request

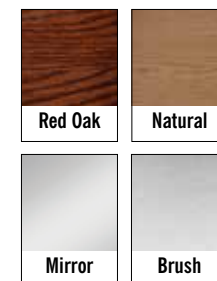
### COATING

Polyester Coating:  
(5μ (Back) + 20μ (Face))  
Polyester Powder Coating:  
(70μ -80μ)  
+ High Performance Coatings like PESDF, PVDF and POLYAMIDE are available upon request.

### COLOR / FINISH



### SPECIAL FINISHES



+ See page 144 for additional colors & special finishes available  
+ Special finishes can be provided in lamination, sublimation or coil coating process.

## DATA / PERFORMANCE



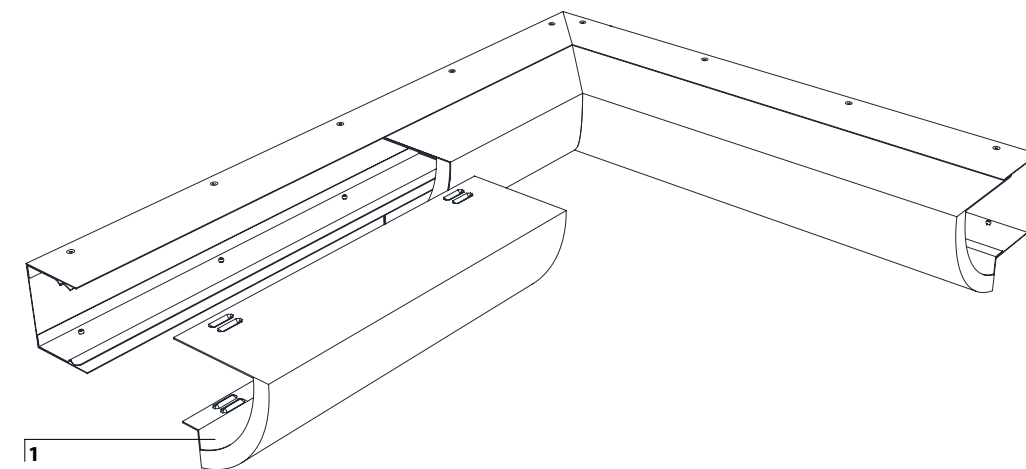
**ANTI BACTERIAL COATING**  
Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



**LIGHT REFLECTANCE (LR)**  
Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.

## RAM 5211 METAL SKIRTING

### ISOMETRIC DETAIL

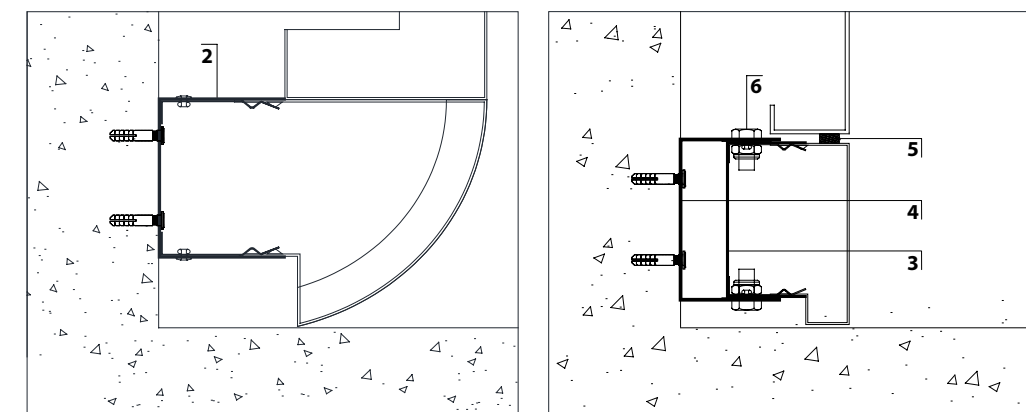


### COMPONENTS

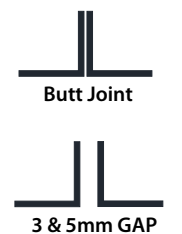
- 1 Panel
- 2 Carrier Profile
- 3 Skirting Spring Channel
- 4 Skirting Bracket
- 5 Self-Adhesive Tape
- 6 Bolts & Nuts

Custom sizes can be offered

### SECTION DETAILS



### PANEL JOINT DETAILS





# SURFACE DESIGN PATTERN

**6010** PERFORATION PATTERNS

**6020** EXPANDED METAL MESH PATTERNS

# 6010

## PERFORATION PATTERNS

<p><b>RS 0750</b> D- 0.7mm, P- 5mm Open Area <math>\approx</math> 1.5 %</p> <table border="1"> <thead> <tr> <th>MATERIALS</th> <th>THICKNESS (mm)</th> </tr> </thead> <tbody> <tr> <td>Steel</td> <td>0.45 - 0.6</td> </tr> <tr> <td>Aluminium</td> <td>0.45 - 0.7</td> </tr> <tr> <td>S.S.</td> <td></td> </tr> </tbody> </table>	MATERIALS	THICKNESS (mm)	Steel	0.45 - 0.6	Aluminium	0.45 - 0.7	S.S.		<p><b>RD 0840</b> D- 0.8mm, P- 4mm Open Area <math>\approx</math> 4 %</p> <table border="1"> <thead> <tr> <th>MATERIALS</th> <th>THICKNESS (mm)</th> </tr> </thead> <tbody> <tr> <td>Steel</td> <td>0.5 - 0.8</td> </tr> <tr> <td>Aluminium</td> <td>0.5 - 0.8</td> </tr> <tr> <td>S.S.</td> <td></td> </tr> </tbody> </table>	MATERIALS	THICKNESS (mm)	Steel	0.5 - 0.8	Aluminium	0.5 - 0.8	S.S.	
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<p><b>RU 0840</b> D- 0.8mm, P1- 4mm, P2- 7mm Open Area <math>\approx</math> 3%</p> <table border="1"> <thead> <tr> <th>MATERIALS</th> <th>THICKNESS (mm)</th> </tr> </thead> <tbody> <tr> <td>Steel</td> <td>0.5 - 0.8</td> </tr> <tr> <td>Aluminium</td> <td>0.5 - 0.8</td> </tr> <tr> <td>S.S.</td> <td></td> </tr> </tbody> </table>	MATERIALS	THICKNESS (mm)	Steel	0.5 - 0.8	Aluminium	0.5 - 0.8	S.S.		<p><b>RD 1250</b> D- 1.2mm, P- 5mm Open Area <math>\approx</math> 10 %</p> <table border="1"> <thead> <tr> <th>MATERIALS</th> <th>THICKNESS (mm)</th> </tr> </thead> <tbody> <tr> <td>Steel</td> <td>0.5 - 0.7</td> </tr> <tr> <td>Aluminium</td> <td>0.5 - 0.7</td> </tr> <tr> <td>S.S.</td> <td></td> </tr> </tbody> </table>	MATERIALS	THICKNESS (mm)	Steel	0.5 - 0.7	Aluminium	0.5 - 0.7	S.S.	
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<p><b>RS 1250</b> D- 1.2mm, P- 5mm Open Area <math>\approx</math> 4.5 %</p> <table border="1"> <thead> <tr> <th>MATERIALS</th> <th>THICKNESS (mm)</th> </tr> </thead> <tbody> <tr> <td>Steel</td> <td>0.5 - 0.7</td> </tr> <tr> <td>Aluminium</td> <td>0.5 - 0.8</td> </tr> <tr> <td>S.S.</td> <td></td> </tr> </tbody> </table>	MATERIALS	THICKNESS (mm)	Steel	0.5 - 0.7	Aluminium	0.5 - 0.8	S.S.		<p><b>RD 1540</b> D- 1.5mm, P- 4mm Open Area <math>\approx</math> 22 %</p> <table border="1"> <thead> <tr> <th>MATERIALS</th> <th>THICKNESS (mm)</th> </tr> </thead> <tbody> <tr> <td>Steel</td> <td>0.5 - 0.7</td> </tr> <tr> <td>Aluminium</td> <td>0.5 - 1.5</td> </tr> <tr> <td>S.S.</td> <td></td> </tr> </tbody> </table>	MATERIALS	THICKNESS (mm)	Steel	0.5 - 0.7	Aluminium	0.5 - 1.5	S.S.	
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<p><b>RS 1540</b> D- 1.5mm, P- 4mm Open Area <math>\approx</math> 11 %</p> <table border="1"> <thead> <tr> <th>MATERIALS</th> <th>THICKNESS (mm)</th> </tr> </thead> <tbody> <tr> <td>Steel</td> <td>0.5 - 0.7</td> </tr> <tr> <td>Aluminium</td> <td>0.5 - 1.5</td> </tr> <tr> <td>S.S.</td> <td></td> </tr> </tbody> </table>	MATERIALS	THICKNESS (mm)	Steel	0.5 - 0.7	Aluminium	0.5 - 1.5	S.S.		<p><b>RD 1850</b> D- 1.8mm, P- 5mm Open Area <math>\approx</math> 20 %</p> <table border="1"> <thead> <tr> <th>MATERIALS</th> <th>THICKNESS (mm)</th> </tr> </thead> <tbody> <tr> <td>Steel</td> <td>0.5 - 0.9</td> </tr> <tr> <td>Aluminium</td> <td>0.5 - 1.5</td> </tr> <tr> <td>S.S.</td> <td></td> </tr> </tbody> </table>	MATERIALS	THICKNESS (mm)	Steel	0.5 - 0.9	Aluminium	0.5 - 1.5	S.S.	
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<p><b>RS 1850</b> D- 1.8mm, P- 5mm Open Area <math>\approx</math> 10 %</p> <table border="1"> <thead> <tr> <th>MATERIALS</th> <th>THICKNESS (mm)</th> </tr> </thead> <tbody> <tr> <td>Steel</td> <td>0.5 - 0.9</td> </tr> <tr> <td>Aluminium</td> <td>0.5 - 1.5</td> </tr> <tr> <td>S.S.</td> <td></td> </tr> </tbody> </table>	MATERIALS	THICKNESS (mm)	Steel	0.5 - 0.9	Aluminium	0.5 - 1.5	S.S.		<p><b>RD 2550</b> D- 2.5mm, P- 5mm Open Area <math>\approx</math> 35%</p> <table border="1"> <thead> <tr> <th>MATERIALS</th> <th>THICKNESS (mm)</th> </tr> </thead> <tbody> <tr> <td>Steel</td> <td>0.5 - 0.9</td> </tr> <tr> <td>Aluminium</td> <td>0.5 - 2</td> </tr> <tr> <td>S.S.</td> <td></td> </tr> </tbody> </table>	MATERIALS	THICKNESS (mm)	Steel	0.5 - 0.9	Aluminium	0.5 - 2	S.S.	
MATERIALS	THICKNESS (mm)																
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+ We offer a wide range of custom designed perforation patterns. For any requirements & for more selection of Perforation Patterns, you can send your requirements to [contactus@rammetal.com](mailto:contactus@rammetal.com) or do your own selection from [www.schiavetti.it](http://www.schiavetti.it)

**RS 2550**  
D - 2.5mm, P - 5mm  
Open Area ≈ 20%

MATERIALS	THICKNESS (mm)
Steel	0.5 - 0.9
Aluminium	0.5 - 2
S.S.	

**RD 2516**  
D - 2.5mm, P - 6mm  
Open Area ≈ 16%

MATERIALS	THICKNESS (mm)
Steel	0.5 - 0.9
Aluminium	0.5 - 1.5
S.S.	

**RU 2560**  
D - 2.5mm, P1 - 6mm, P2 - 10.5mm  
Open Area ≈ 8%

MATERIALS	THICKNESS (mm)
Steel	0.5 - 0.9
Aluminium	0.5 - 1.5
S.S.	

**RD 2575**  
D - 2.5mm, P - 7.5mm  
Open Area ≈ 18%

MATERIALS	THICKNESS (mm)
Steel	0.5 - 0.9
Aluminium	0.5 - 1.5
S.S.	0.5 - 0.7

**RS 2575**  
D - 2.5mm, P - 7.5mm  
Open Area ≈ 9%

MATERIALS	THICKNESS (mm)
Steel	0.5 - 0.9
Aluminium	0.5 - 1.5
S.S.	0.5 - 0.7

**RD 3090**  
D - 3mm, P - 9mm  
Open Area ≈ 17.5%

MATERIALS	THICKNESS (mm)
Steel	0.5 - 0.9
Aluminium	0.5 - 2
S.S.	

**RS 3090**  
D - 3mm, P - 9mm  
Open Area ≈ 9%

MATERIALS	THICKNESS (mm)
Steel	0.5 - 0.9
Aluminium	0.5 - 2
S.S.	

**RS 3019**  
D - 3mm, P1 - 9mm, P2 - 10mm  
Open Area ≈ 8%

MATERIALS	THICKNESS (mm)
Steel	0.6 - 0.9
Aluminium	0.7 - 2
S.S.	

**RS 4016**  
D - 4mm, P - 16mm  
Open Area ≈ 5%

MATERIALS	THICKNESS (mm)
Steel	0.5 - 0.9
Aluminium	0.5 - 1.5
S.S.	

**RD 4016**  
D - 4mm, P - 16mm  
Open Area ≈ 10%

MATERIALS	THICKNESS (mm)
Steel	0.5 - 0.9
Aluminium	0.5 - 1.5
S.S.	

**RS 5013**  
D - 5mm, P - 13mm  
Open Area ≈ 11.6%

MATERIALS	THICKNESS (mm)
Steel	0.6 - 0.9
Aluminium	0.7 - 2
S.S.	

**RS 6010**  
D - 6mm, P - 10mm  
Open Area ≈ 28%

MATERIALS	THICKNESS (mm)
Steel	0.5 - 0.9
Aluminium	0.7 - 2
S.S.	

**SS 4080**  
C - 4mm, P - 8mm  
Open Area ≈ 25%

MATERIALS	THICKNESS (mm)
Steel	0.6 - 0.8
Aluminium	0.6 - 0.9
S.S.	

**SS 6012**  
C - 6mm, P1 - 12mm  
Open Area ≈ 25%

MATERIALS	THICKNESS (mm)
Steel	0.6 - 0.8
Aluminium	0.6 - 0.9
S.S.	

**RES 6017**  
W - 7mm, L - 60mm, P - 17mm

MATERIALS	THICKNESS (mm)
Steel	0.5 - 0.8
Aluminium	0.7 - 1.2
S.S.	

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# 6020

## EXPANDED METAL MESH PATTERNS



### WALL CLADDINGS

<p><b>DIAMOND</b></p> <table border="1"> <tr><td>A</td><td>9mm</td></tr> <tr><td>CD</td><td>26mm</td></tr> <tr><td>LD</td><td>62mm</td></tr> </table>	A	9mm	CD	26mm	LD	62mm	<p><b>SCREEN</b></p> <table border="1"> <tr><td>A</td><td>24mm</td></tr> <tr><td>CD</td><td>52mm</td></tr> <tr><td>LD</td><td>112mm</td></tr> </table>	A	24mm	CD	52mm	LD	112mm
A	9mm												
CD	26mm												
LD	62mm												
A	24mm												
CD	52mm												
LD	112mm												
<p><b>OLYMPIC</b></p> <table border="1"> <tr><td>A</td><td>33mm</td></tr> <tr><td>CD</td><td>80mm</td></tr> <tr><td>LD</td><td>200mm</td></tr> </table>	A	33mm	CD	80mm	LD	200mm	<p><b>HEXA</b></p> <table border="1"> <tr><td>A</td><td>5mm</td></tr> <tr><td>CD</td><td>13.5mm</td></tr> <tr><td>LD</td><td>45mm</td></tr> </table>	A	5mm	CD	13.5mm	LD	45mm
A	33mm												
CD	80mm												
LD	200mm												
A	5mm												
CD	13.5mm												
LD	45mm												
<p><b>ALICE</b></p> <table border="1"> <tr><td>A</td><td>15mm</td></tr> <tr><td>CD</td><td>35mm</td></tr> <tr><td>LD</td><td>225mm</td></tr> </table>	A	15mm	CD	35mm	LD	225mm	<p><b>MARINA</b></p> <table border="1"> <tr><td>A</td><td>21.5mm</td></tr> <tr><td>CD</td><td>56mm</td></tr> <tr><td>LD</td><td>150mm</td></tr> </table>	A	21.5mm	CD	56mm	LD	150mm
A	15mm												
CD	35mm												
LD	225mm												
A	21.5mm												
CD	56mm												
LD	150mm												
<p><b>PISA</b></p> <table border="1"> <tr><td>A</td><td>20mm</td></tr> <tr><td>CD</td><td>48mm</td></tr> <tr><td>LD</td><td>110mm</td></tr> </table>	A	20mm	CD	48mm	LD	110mm	<p><b>ROUNDEX</b></p> <table border="1"> <tr><td>A</td><td>6mm</td></tr> <tr><td>CD</td><td>20mm</td></tr> <tr><td>LD</td><td>30mm</td></tr> </table>	A	6mm	CD	20mm	LD	30mm
A	20mm												
CD	48mm												
LD	110mm												
A	6mm												
CD	20mm												
LD	30mm												

+ We offer a wide range of expanded metal mesh patterns. For any requirements & for more selection of Patterns, you can send your requirements to [contactus@rammetal.com](mailto:contactus@rammetal.com) or do your own selection from [www.rgs.it](http://www.rgs.it)





## FALSE CEILINGS

<p><b>MR 16x8</b></p> <table border="1"> <tr> <td>A</td> <td>1mm</td> <td>1.4mm</td> <td>2.5mm</td> </tr> <tr> <td>CD</td> <td colspan="3">8mm</td> </tr> <tr> <td>LD</td> <td colspan="3">16mm</td> </tr> </table>	A	1mm	1.4mm	2.5mm	CD	8mm			LD	16mm			<p><b>MR 29x10</b></p> <table border="1"> <tr> <td>A</td> <td>1.5mm</td> </tr> <tr> <td>CD</td> <td>10mm</td> </tr> <tr> <td>LD</td> <td>29mm</td> </tr> </table>	A	1.5mm	CD	10mm	LD	29mm
A	1mm	1.4mm	2.5mm																
CD	8mm																		
LD	16mm																		
A	1.5mm																		
CD	10mm																		
LD	29mm																		
<p><b>MR 32x12</b></p> <table border="1"> <tr> <td>A</td> <td>1.5mm</td> <td>2mm</td> </tr> <tr> <td>CD</td> <td colspan="2">12mm</td> </tr> <tr> <td>LD</td> <td colspan="2">32mm</td> </tr> </table>	A	1.5mm	2mm	CD	12mm		LD	32mm		<p><b>MQS 40x30</b></p> <table border="1"> <tr> <td>A</td> <td>3mm</td> </tr> <tr> <td>CD</td> <td>30mm</td> </tr> <tr> <td>LD</td> <td>40mm</td> </tr> </table>	A	3mm	CD	30mm	LD	40mm			
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CD	12mm																		
LD	32mm																		
A	3mm																		
CD	30mm																		
LD	40mm																		
<p><b>MTS 10 Ø5</b></p> <table border="1"> <tr> <td>A</td> <td>1.7mm</td> <td>1.8mm</td> </tr> <tr> <td>CD</td> <td colspan="2">10mm</td> </tr> <tr> <td>LD</td> <td colspan="2">10mm</td> </tr> </table>	A	1.7mm	1.8mm	CD	10mm		LD	10mm		<p><b>ME 46x16</b></p> <table border="1"> <tr> <td>A</td> <td>2.5MM</td> <td>3mm</td> </tr> <tr> <td>CD</td> <td colspan="2">16mm</td> </tr> <tr> <td>LD</td> <td colspan="2">46mm</td> </tr> </table>	A	2.5MM	3mm	CD	16mm		LD	46mm	
A	1.7mm	1.8mm																	
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CD	16mm																		
LD	46mm																		
<p><b>ME 62x13</b></p> <table border="1"> <tr> <td>A</td> <td>2.5mm</td> </tr> <tr> <td>CD</td> <td>13mm</td> </tr> <tr> <td>LD</td> <td>62mm</td> </tr> </table>	A	2.5mm	CD	13mm	LD	62mm	<p><b>30 DK 30x12.5</b></p> <table border="1"> <tr> <td>A</td> <td>4.5mm</td> </tr> <tr> <td>CD</td> <td>12.5mm</td> </tr> <tr> <td>LD</td> <td>30mm</td> </tr> </table>	A	4.5mm	CD	12.5mm	LD	30mm						
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CD	13mm																		
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A	4.5mm																		
CD	12.5mm																		
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# RAL COLORS

 RAL 1013	 RAL 1015	 RAL 1019	 RAL 5001
 RAL 5002	 RAL 5007	 RAL 5018	 RAL 5024
 RAL 6025	 RAL 7003	 RAL 7008	 RAL 7021
 RAL 7035	 RAL 7045	 RAL 8001	 RAL 8008

 RAL 9001	 RAL 9002	 RAL 9003	 RAL 9005
 RAL 9006	 RAL 9007	 RAL 9010	 RAL 9016
 RAL 9017	 RAL 1035	 RAL 1036	 RAL 5025
 RAL 5026	 RAL 7048	 RAL 9022	 RAL 9023

This color card is to be used as an indication only.  
For special color requirements and accurate assessment, please contact us at [contactus@rammetal.com](mailto:contactus@rammetal.com)

# WOOD FINISHES



WDF 1001



WDF 1002



WDF 1003



WDF 1007



WDF 1008



WDF 1009



WDF 1004



WDF 1005



WDF 1006



WDF 1010



WDF 1011

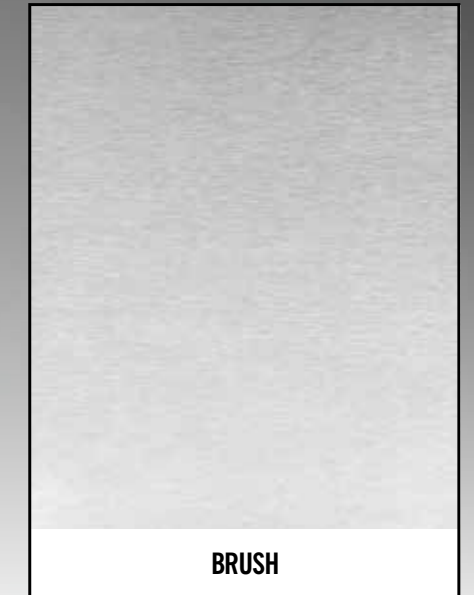


WDF 1012

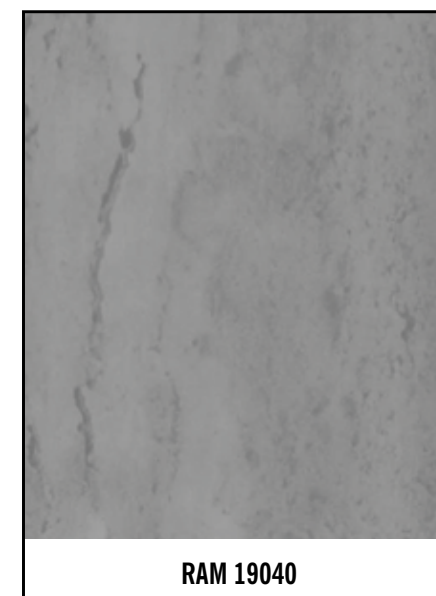
This color card is to be used as an indication only.  
For special color requirements and accurate assessment, please contact us at [contactus@rammetal.com](mailto:contactus@rammetal.com)

# ARCHITECTURAL FINISHES

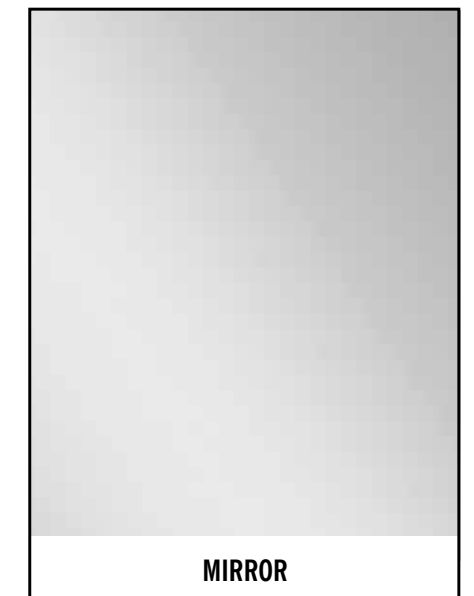
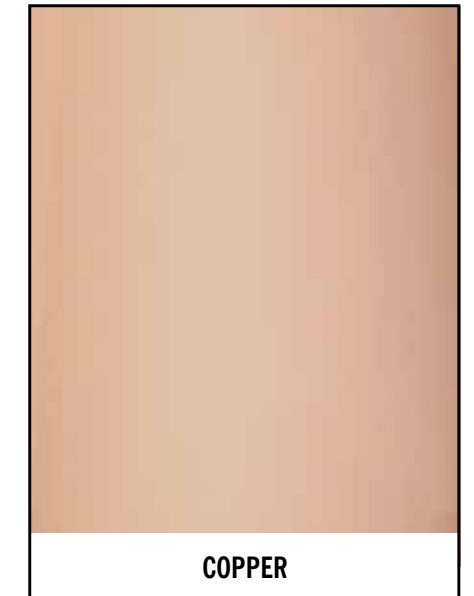
## STAINLESS STEEL FINISHES



## SPECIAL FINISHES



## ANODIZED ALUMINUM FINISHES



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# DATA/PERFORMANCE



## ACOUSTICS

Tested as per BS EN ISO 354: 2003 for sound absorption, noise reduction and sound attenuation.

Maximum NRC achieved with Acoustic Black fleece – NRC 0.75

Maximum NRC achieved with Acoustic Black Fleece and Rock-wool Insulation- NRC 1.00

Tested as per ASTM E1414-11a for Airborne Sound Attenuation as per ISO 10848-2.

Maximum CAC can achieved up to — 48 dB

Perforated & Sound Attenuation cover



## WIND RESISTANCE

Tested as per ASTM E330-02

Complies with CWCT Sec 1,12:2005

Wind Resistance—Serviceability & Safety, Test Report Ref: TBWIC/RH128

Air Permeability

Complies with CWCT Sec 5:2005 Air Leakage, Test Report Ref: TBWIC/RH128



## ANTI BACTERIAL COATING

Tested as per JIS Z 2801: 2000, which inhibits the growth of bacteria on the applied surface.



## LIGHT REFLECTANCE (LR)

Achieved by the metal ceiling is LR- 0.85-0.96 tested as per ASTM E 1477.



## WATER RESISTANCE

Complies with CWCT Sec 6,7:2005 Water Penetration – Static Method & Dynamic Aero Engine Test, Test Report Ref: TBWIC/RH128



## IGNITION PERFORMANCE FOR PLASTICS

Complies with ASTM D1929-16 Standard Test Method for Determining Ignition Temperature of Plastics, Test Report Ref: Intertek/103416370MID-001



## FIRE PERFORMANCE

Surface Spread of flame Class 1 tested as per BS 476: Part 7: 1997

“Non-Combustible” Material tested as per BS 476: Part4: 1970

Flame Spread and Smoke Development Index tested as per ASTM E84 (Class 1 or A)

Complies with NFPA 285-2012 Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components, Test Report Ref: TBWIC/RK094 (Rev.01)



## FIRE RESISTANCE

Fire Rated tested as per BS476 : Part 23: 1987 Fire tests on building materials and structures. Methods for determination of the contribution of components to the fire resistance of a structure



## SECURITY

Complies with ASTM F2322 standards for physical assault on vertical fixed barriers for detention and correctional facilities



CONTACT US

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