

# METAL & MESH SOLUTIONS

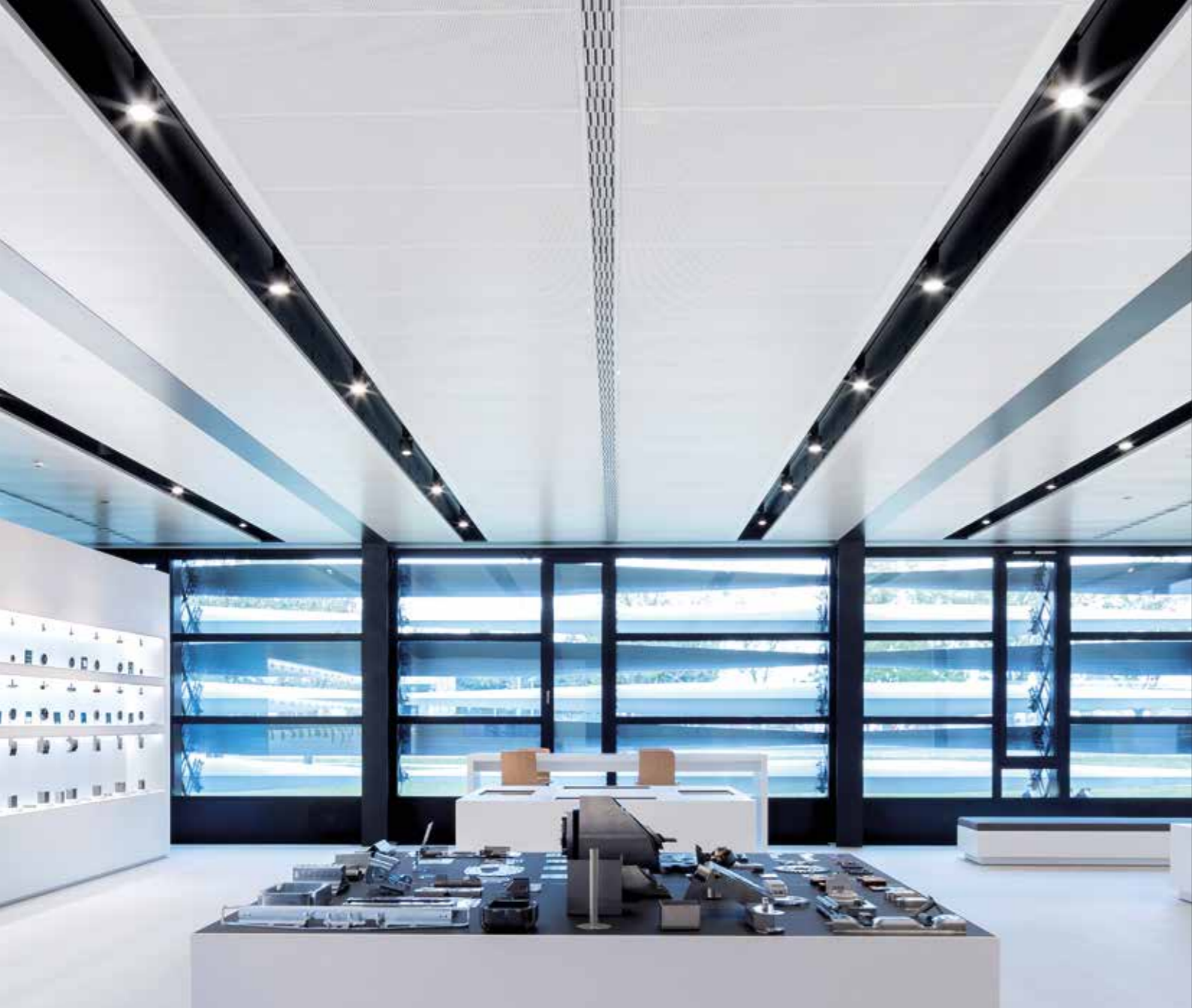
**KNAUF**CEILING  
*Solutions*





[Cover] METAL R-Clip (Trumpf, Warsaw, Poland, © Saymon Polarski) • [Current page, top left to bottom right] METAL Sonic Element Arc (Hôtel de ville, Châteaugiron, France, © StudioVU) • Custom C-Profile METAL Linear Modular System (CTL Collaborative Teaching Laboratory, University of Birmingham, UK, © Simon Miles) • METAL R-Clip (Laborator EPAL, Portugal, © Joao Morgado) • METAL Tegular B, Rg 0701, Global White (Kaspersky Lab, Moscow, Russia, © Sergei Ananiev) • METAL Baffle Element, American Walnut wood effects (Blake House, Uxbridge, UK, © Philip Durrant) • METAL R-H 200, trapezoid shaped, Rg 0701, RAL 260 20 20 (J&T Banka Café, Brno, Czech Republic, © Filip Šlapal)

[Current page, top left to bottom right] MESH Board, RAL 9005 (Univerzitet, Novi Sad, Serbia, © Marko Cvetkovic Cvele) • METAL R-H 200 (EUM Shopping Mall, Kiev, Ukraine, © Benoy/TeUM) • METAL Sky Element Hook, triangular shaped, Rg 0701, RAL 9010 (Austria Center Vienna, Austria, © Ludwig Schedl) • METAL R-Clip (Justice Center, Zaragoza, Spain, © José Manuel Cullitas) • METAL Q-Clip, Rd 1522, RAL 9003 (Zürich Train Station, Passage Sihlquai, Exit Europaallee, Switzerland, © Foto Lautenschlager) • METAL R-H 200, RAL 1036 (Zürich Train Station, Switzerland, © Rudi Walt)



## METAL & MESH CEILING SOLUTIONS

### THINK BOLDER, THINK METAL

When we think bigger, we also think bolder. And one of the best ways to deliver cutting-edge interior design is by installing a contemporary metal ceiling. It helps you create a modern, aesthetically pleasing atmosphere, enhanced by acoustic performances. Knauf Ceiling Solutions Cradle to Cradle Certified® Silver metal range offers an extensive choice of colours and perforation patterns for outstanding visual appearance and effective acoustic comfort.

With our custom metal capabilities, you can create a monolithic look with extra-wide metal panels or a radial effect with trapezoids tailored to fit your space. Faceted, flat, or curved, custom metal ceilings have the unique sizes, shapes, finishes and perforations to make your next project stand out.

## SHAPES & SYSTEMS



### CEILING EXPOSED GRID

Exposed ceiling systems provide a modular aesthetic and are available in a variety of edge details.



### CEILING CONCEALED GRID

Concealed ceiling solutions create a continuous, monolithic look by concealing all of the grid system.



### OPEN CELL

Open cell metal tiles mask the plenum and provide 100% accessibility to lighting, ventilation and sprinklers with an homogeneous appearance.



### FLOATING CEILING CANOPIES

Open up an almost endless range of dramatic design possibilities with canopies that can be suspended from any soffit.



### VERTICAL BAFFLES

Express a new narrative with vertical baffles and create a look to visually tell a story with a solution that will spark your imagination.



### FREE SPAN CORRIDOR SOLUTIONS

With easy installation and access to services, wall-to-wall corridor solutions require functionality to handle high traffic and design flexibility to connect key spaces seamlessly.



### WALL SOLUTIONS

Walls solutions come in a variety of designs to provide a stunning visual durable enough for high-impact or high traffic areas. Coordinate with ceilings and other interior finishes to create signature spaces.



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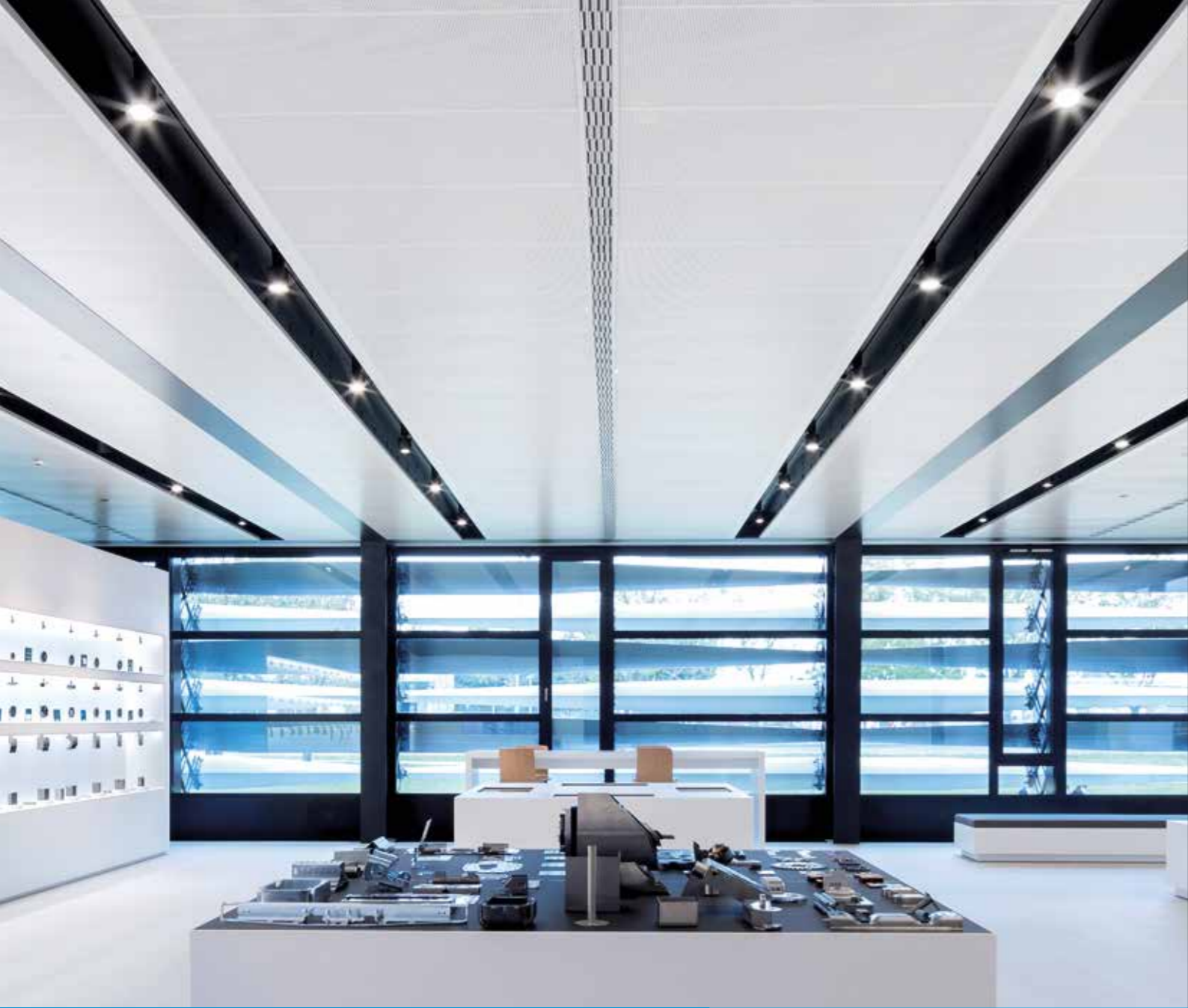
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## METAL SOLUTIONS

There is no limit to what you can achieve with Knauf Ceiling Solutions Vario Design range.

From predefined Lay-In and Clip-In panels to variable module systems, baffles and canopies, all systems are configurable as part of the Vario Design portfolio providing additional technical performances, versatile shapes, dimensions, perforations, colours or acoustic infills to meet the specific design needs of your projects.

Our portfolio of configurable and bespoke metal ceilings and walls gives you the freedom and flexibility to create unique solutions to fit every space.

Faceted, flat or curved, our metal ceilings include unique sizes, shapes, finishes and perforations to make your project stand out from the rest.

## TECHNICAL PERFORMANCES



### Fire resistance

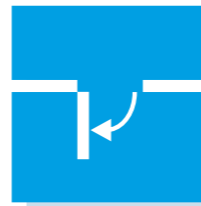
METAL F-H 600 Swing EI30 fire resistant ceiling for corridors.

Tested and classified to meet EI30 (a <-> b), in accordance with EN 13501-2.



### Seismic

Our seismic solutions give the extra security required for seismic resistance. Use our specially designed elements for maximum performance with minimised installation complexity.



### Swing-down function

The swing-down function is available to a selection of our metal ceiling solutions. It allows you to quickly swing down the ceiling to grant easy and complete access to the plenum, helping maintain any technical element located there.



### Impact resistance

Ceiling panels installed in school corridors, gymnasiums and sports halls must withstand occasional abuse, including surface impact. Our specially adapted METAL R-H 200 impact resistant solution can provide this durability feature.



### Clean room

Healthcare, pharmaceuticals, and the food processing industry expect the highest levels of air cleanliness. We designed our clean room metal ceiling tiles to meet these requirements for labs, data centres, and clean room assemblies.



### Secure function

This function adds a concealed locking mechanism for metal ceilings, making them tamper-resistant and restricting access to the plenum. They are typically used in judicial and correctional facilities, public areas in general, with a low room height, or psychiatric and juvenile wards.



### Exterior

Choose durability's finest from our selection of exterior solutions. These ceiling tiles are tested for wind lift and corrosion resistance. We paired them with grids designed for outdoor use to create a complete system you can rely on to meet the demand of exterior performance.

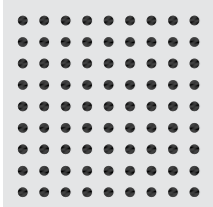
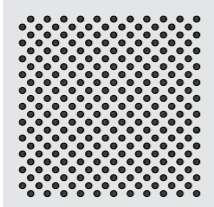
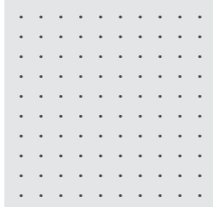


### Suitable for chilled ceilings

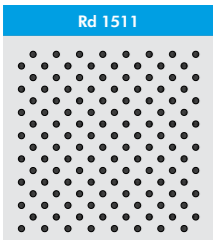
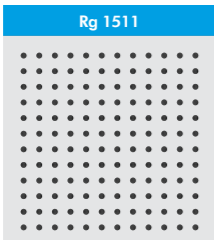
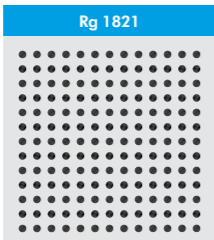
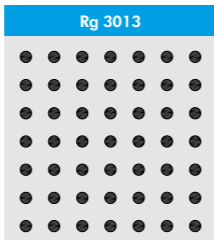
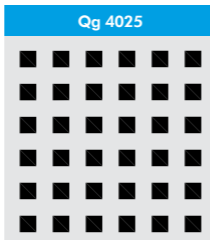
Choose our chilled ceiling-suitable metal panels to allow for the installation of heating and cooling units, bringing comfort to all occupants with minimal air ventilation requirements.

# PERFORATIONS

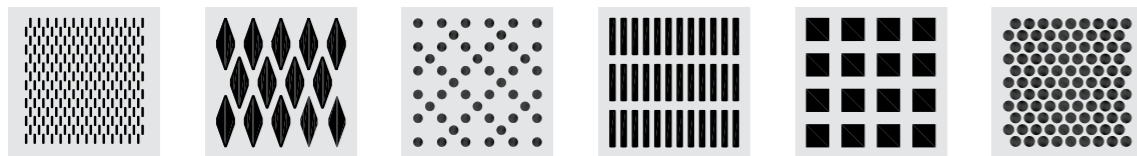
Predefined modules are available in 3 popular perforations.

	<p>Standard perforation <b>Rg 2516</b></p> <p>Hole diameter: 2.5mm Open area: 16%</p>		<p>Micro-perforation <b>Rd 1522</b></p> <p>Hole diameter: 1.5mm Open area: 22%</p>		<p>Extramicro perforation <b>Rg 0701</b></p> <p>Hole diameter: 0.7mm Open area: 1.5%</p>
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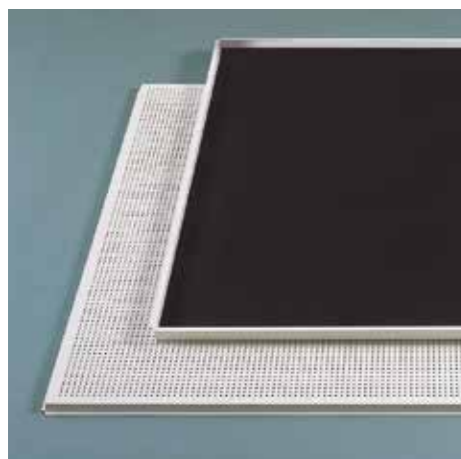
with 5 additional Vario Design Perforations.

				
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Knauf Ceiling Solutions extensive range of more than 50 perforations gives a wide choice of aesthetic options: large apertures for specialised uses such as airflow or loudspeakers to slotted perforations for a more linear appearance. Hereunder is a sample of the possibilities at your reach. For more information, please get in touch with us.



# ACOUSTIC SOLUTIONS



## STANDARD BLACK ACOUSTIC FLEECE

Non-woven acoustic fleece provides a cost effective solution for general sound absorption requirements. As a solution that is bonded to the reverse of the metal tile it helps eliminate pattern staining issues that may occur with loose laid solutions.


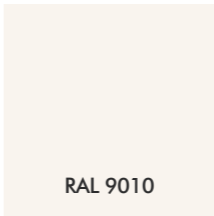

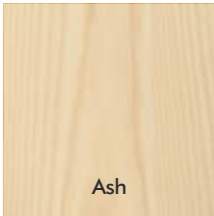

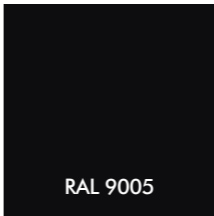
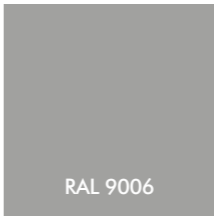
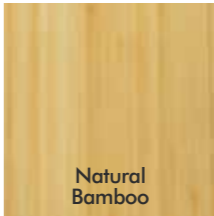
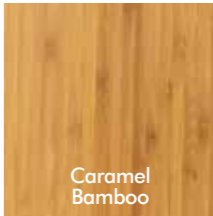
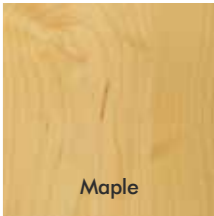


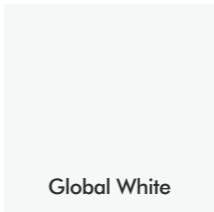
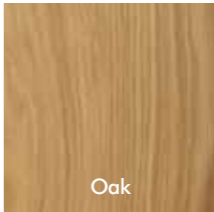
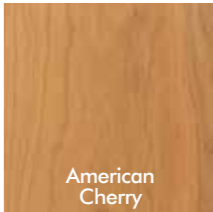
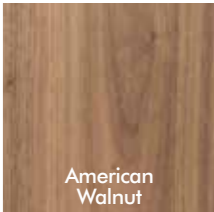
Perforations	Dnfw	$\alpha_w$	Class
Rg 2516 Standard perforation	18 dB	0.75(L)	C
Rd 1522 Microperforation	16 dB	0.70	C
Rg 0701 Extramicro perforation	21 dB	0.55(L)	D

In addition to the standard acoustic fleece, Knauf Ceiling Solutions offers a range of Vario Design acoustic solutions: Premium OP19 for a high absorption, Premium B15 for a high absorption and attenuation, as well as acoustic pads.

For more information, please get in touch with us.

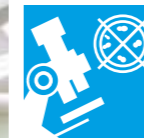
# COLOURS

Knauf Ceiling Solutions standard colour for metal ceilings RAL 9010 (Pure White) and 6 additional Vario Design colours and 7 wood effects.

Further colours and wood effects available on request.

# PERFORMANCE COATINGS



## METAL BIOGUARD\*

**Metal BioGuard** metal tiles' coating is designed for applications where suspended ceilings are required, and hygiene and cleanliness are of the utmost importance.

Metal BioGuard is more effective in the control of bacteria than a standard powder coating because it prevents the settlement of bacteria on the surface of the tile.

Metal BioGuard gives good cleanability and resistance to disinfectants as well as cleanroom performance.

For more information, please get in touch with us.



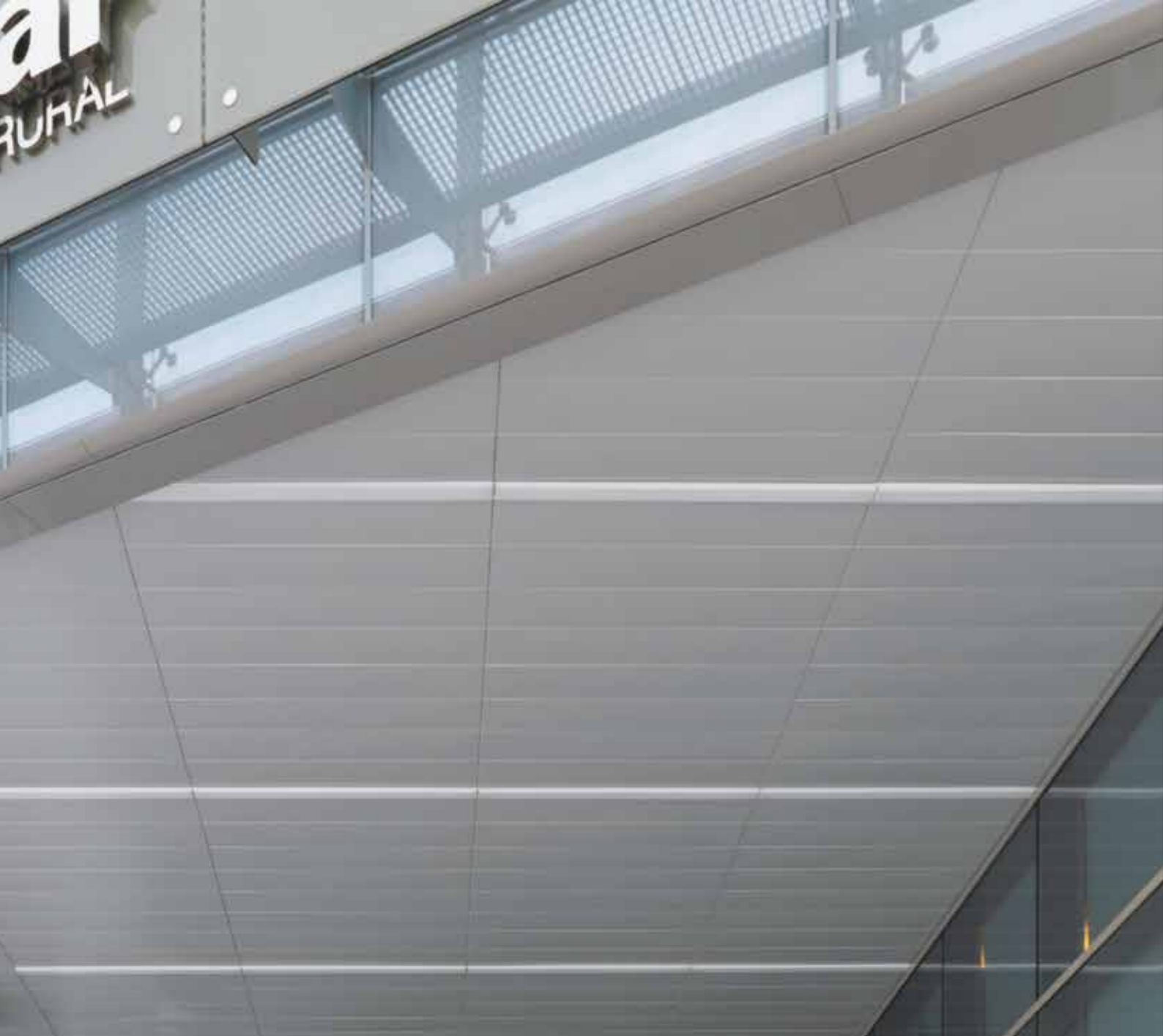
## METAL TRIOGUARD™\*

**Metal TrioGuard™** dirt-resistant coating protects the ceiling from dirt build-up and colour fading, maintaining its original look for longer. Available in several metal designs.

- Unique dirt-resistant powder-painted finish with a lasting "just like new" appearance.
- Lower maintenance costs and easy to clean.
- Colour stable, keeping its original colour for up to 10 years<sup>(1)</sup>.

<sup>(1)</sup> Tested using ASTM D4674 Standard Practice for Accelerated Testing for Colour Stability (10-year simulation).

\*BioGuard and TrioGuard™ coatings are only available for concealed grid solutions, unperforated, in RAL 9010 or Global White, without acoustic infill or gasket.



Design & Performance Systems  
**ARMSTRONG METAL Exterior Solutions**  
 Q-Clip Exterior, Q-Clip F Exterior, R-Clip Exterior, R-Clip F Exterior

Edge details	METAL Q-Clip Exterior <small>VO</small>	METAL Q-Clip F Exterior <small>VO</small>	METAL R-Clip Exterior <small>VO</small>	METAL R-Clip F Exterior <small>VO</small>
<b>System</b>	U-Profile + DP12 A-Bar	U-Profile + DP12 A-Bar	U-Profile + DP12 A-Bar	U-Profile + DP12 A-Bar
<b>Modules (mm)</b>	600 x 600	600 x 600	1200 x 300 1200 x 400 1500 x 400 (further sizes on request)	1200 x 300 1200 x 600
<b>Material &amp; colours</b>	Post-coated galvanised steel, 0.5 - 0.6mm RAL 9010 Exterior Powder <b>Other colours</b> <i>Custom colours on request. Both side powder-coated for exterior use.</i>			
<b>Weight</b>	4.6 - 6.6 kg/m <sup>2</sup>			<i>Weight varies depending on the edge detail.</i>
<b>Corrosion classes</b>	<b>C1, C2, C3</b> as per EN ISO 12944-1 / EN ISO 12944-2			
<b>Sustainability</b>	<b>~14%</b>			

Design & Performance Systems  
**ARMSTRONG METAL Exterior Solutions**  
 Q-Clip Exterior, Q-Clip F Exterior, R-Clip Exterior, R-Clip F Exterior



- **Armstrong METAL Exterior Solutions** are designed to perform in challenging conditions and resist different environmental factors such as high humidity and wind pressure.
- Armstrong METAL Clip-In Exterior Solutions are classified for use in C1, C2 and C3 environments as defined in EN ISO 12944-1 / EN ISO 12944-2.
- Durable exterior powder paint with enhanced UV protection.
- Design options – 4 modules available with custom colours on request.
- Security clips to maintain system integrity when subject to wind suction.
- Fully recyclable.
- Ideal for applications such as car parks, stadiums, transport hubs, and exterior walkways.



[Previous page] METAL R-Clip Exterior (Capital Fort, Sofia, Bulgaria, ©Ivan Lambrev)

**VO** Options with this icon are available from our **Vario Design** range. Some combinations of colours and/or perforations are not available for every product. Products may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website. [knaufceilingsolutions.com](http://knaufceilingsolutions.com)





## Exposed Grid Systems ARMSTRONG METAL Lay-In Board, Tegular



- Armstrong METAL Lay-In is available in a variety of edge details for installation on standard 24mm suspension systems.
- Easily assembled and fully demountable to allow access to the ceiling void.
- Cost effective ceiling solution.
- Additional design options available as part of our **Vario Design** range.
- Used in a variety of ceiling areas: from small service rooms to large commercial office buildings and major transportation terminals.



## Exposed Grid Systems ARMSTRONG METAL Lay-In Board, Tegular

Edge details	METAL Board	METAL Tegular 2	METAL Tegular 8	METAL Tegular 11F	METAL Tegular 16								
System	Exposed demountable - System C (24mm or 15mm T-Grid, butt-cut)	Exposed demountable - System C (24mm T-Grid, butt-cut)	Exposed demountable - System C (24mm T-Grid)	Exposed demountable - System C (24mm T-Grid)	Exposed demountable - System C (24mm T-Grid)								
Modules (mm)	600 x 600 625 x 625 1200 x 600	600 x 600 625 x 625	500 x 500 600 x 600 675 x 675 1200 x 300 1200 x 600	600 x 600 625 x 625 1200 x 600	500 x 500 600 x 600 675 x 675 750 x 750								
Material & perforations	Post-coated galvanised steel, 0.5 - 0.6mm												
	Unperforated	Standard perforation <b>Rg 2516</b> Ø: 2.5mm Open area: 16%	Micro-perforation <b>Rd 1522</b> Ø: 1.5mm Open area: 22%	Extramicro perforation <b>Rg 0701</b> Ø: 0.7mm Open area: 1.5%									
	<b>Other perforations</b>												
	Rd 1511	Rg 1511	Rg 1821	Rg 3013	Qg 4025								
Colours	RAL 9010 <b>Other colours</b> RAL 9003  RAL 9005  RAL 9006  RAL 9007  RAL 9016  Global White <b>Wood effects*</b> Ash  Natural Bamboo  Caramel Bamboo  Maple  Oak  American Cherry  American Walnut <small>*Tiles only.</small>												
Weight	<b>Unperforated</b> 3.9 - 4.9 kg/m <sup>2</sup>	<b>Rg 2516</b> 3.3 - 4.3 kg/m <sup>2</sup>	<b>Rd 1522</b> 3.1 - 4.1 kg/m <sup>2</sup>	<b>Rg 0701</b> 3.9 - 4.9 kg/m <sup>2</sup>	<small>Weight varies depending on the edge detail and acoustic infill.</small>								
Acoustics	EN ISO 354										EN ISO 10848-2	EN ISO 10140-2	
		$\alpha_w^*$	Class	Frequency (Hz) $\alpha_p$						NRC**	$D_{n,w}^{***}$	$R_w^{***}$	CAC****
				125	250	500	1000	2000	4000				
		Unperforated	NC	0.25	0.15	0.05	0.05	0.10	0.10	0.10	44 dB	19 dB	-
		Rg 2516 + Fleece	C	0.35	0.80	0.95	0.70	0.75	0.75	0.80	18 dB	8 dB	-
		Rd 1522 + Fleece	C	0.30	0.65	0.90	0.65	0.70	0.75	0.70	16 dB	6 dB	16 dB
		Rg 0701 + Fleece	D	0.45	0.70	0.70	0.55	0.55	0.45	0.65	21 dB	10 dB	22 dB
				* as per EN ISO 11654			** as per ASTM C 423-01			*** as per EN ISO 717-1		**** as per ASTM E 413-10	
Fire reaction	Euroclass <b>A1</b> (Unperforated / Perforated + No Infill) Euroclass <b>A2-s2, d0</b> (Perforated + Acoustic Fleece) as per EN 13501-1		<b>RUS KM1 (G1, V1, D1, T1)</b> as per 123-FZ			<small>Values applicable for RAL 9010 only.</small>							
Light reflectance	<b>Unperforated</b> 85%	<b>Rg 2516</b> 70%	<b>Rd 1522</b> 65%			<b>Rg 0701</b> 80%		<small>Values applicable for RAL 9010 only.</small>					
Humidity resistance	<b>90% RH</b>												
Indoor air quality	A+  E1												
Cleanability													
Sustainability	≈14%  Silver*												
Design options	Dimensions  Colours  Perforations  Acoustic Infills  Cut-Outs  BioGuard  Seismic												

[Previous page] METAL Tegular 8, Rd 1522 (Bari Airport, Italy, © Filippo di Pretora)

**Options with this icon are available from our Vario Design range.**  
Some combinations of colours and/or perforations are not available for every product.  
Products may vary from country to country. Please contact your local sales representative.  
For further information and legal notice, please visit our website.  
[knaufceilingsolutions.com](http://knaufceilingsolutions.com)






































## Exposed Grid Systems ARMSTRONG METAL Lay-In MicroLook, Axal Vector




- Armstrong METAL MicroLook is available in a variety of edge details for installation on standard 15mm suspension systems.
- Easily assembled and fully demountable to allow access to the ceiling void.
- Armstrong METAL Axal Vector is an easy to install and flexible system which offers a diversity of design and applications, and can be installed with a very low void depth.
- Semi-concealed solution with 7mm reveal detailing for a monolithic effect.
- Downwardly accessible and easy to install/remove without tools.
- Additional design options available as part of our **Vario Design** range.
- Used in a variety of ceiling areas: from small service rooms to large commercial office buildings and major transportation terminals.



## Exposed Grid Systems ARMSTRONG METAL Lay-In MicroLook, Axal Vector

Edge details	METAL MicroLook 8 	METAL MicroLook 16 	METAL Axal Vector 																																																																																										
<b>System</b>	Exposed demountable - System C (15mm T-Grid)	Exposed demountable - System C (15mm T-Grid)	Semi-concealed demountable - System C (24mm T-Grid)																																																																																										
<b>Modules (mm)</b>	500 x 500 600 x 600 675 x 675 750 x 750 1200 x 300 1200 x 600	500 x 500 600 x 600 675 x 675 750 x 750	500 x 500 600 x 300 600 x 600 675 x 675 750 x 750																																																																																										
<b>Material &amp; perforations</b>	Post-coated galvanised steel, 0.5 - 0.6mm																																																																																												
	 Unperforated  Standard perforation <b>Rg 2516</b> <small>Ø: 2.5mm Open area: 16%</small>	 Micro-perforation <b>Rd 1522</b> <small>Ø: 1.5mm Open area: 22%</small>	 Extramicro perforation <b>Rg 0701</b> <small>Ø: 0.7mm Open area: 1.5%</small>																																																																																										
	<b>Other perforations</b>																																																																																												
	 Rd 1511	 Rg 1511	 Rg 1821																																																																																										
	 Rg 3013	 Qg 4025																																																																																											
<b>Colours</b>	 RAL 9010 <b>Other colours</b>  RAL 9003  RAL 9005  RAL 9006  RAL 9007  RAL 9016  Global White <b>Wood effects*</b>  Ash  Natural Bamboo  Caramel Bamboo  Maple  Oak  American Cherry  American Walnut <small>*Tiles only.</small>																																																																																												
<b>Weight</b>	<b>Unperforated</b> 4.0 - 5.5 kg/m <sup>2</sup>	<b>Rg 2516</b> 3.4 - 4.8 kg/m <sup>2</sup>	<b>Rd 1522</b> 3.2 - 4.5 kg/m <sup>2</sup>																																																																																										
			<b>Rg 0701</b> 4.0 - 5.5 kg/m <sup>2</sup>																																																																																										
<b>Acoustics</b>	<table border="1"> <thead> <tr> <th rowspan="3"></th> <th rowspan="3"><math>\alpha_w</math>*</th> <th rowspan="3">Class</th> <th colspan="7">EN ISO 354</th> <th rowspan="3">NRC**</th> <th rowspan="3">EN ISO 10848-2 D<sub>n,tw</sub>***</th> <th rowspan="3">EN ISO 10140-2 R<sub>w</sub>****</th> <th rowspan="3">CAC****</th> </tr> <tr> <th colspan="7">Frequency (Hz) <math>\alpha_p</math></th> </tr> <tr> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td>Unperforated</td> <td>0.10(L)</td> <td>NC</td> <td>0.25</td> <td>0.15</td> <td>0.05</td> <td>0.05</td> <td>0.10</td> <td>0.10</td> <td>0.10</td> <td>0.10</td> <td>44 dB</td> <td>19 dB</td> <td>-</td> </tr> <tr> <td>Rg 2516 + Fleece</td> <td>0.75(L)</td> <td>C</td> <td>0.35</td> <td>0.80</td> <td>0.95</td> <td>0.70</td> <td>0.75</td> <td>0.75</td> <td>0.80</td> <td>0.80</td> <td>18 dB</td> <td>8 dB</td> <td>-</td> </tr> <tr> <td>Rd 1522 + Fleece</td> <td>0.70</td> <td>C</td> <td>0.30</td> <td>0.65</td> <td>0.90</td> <td>0.65</td> <td>0.70</td> <td>0.75</td> <td>0.70</td> <td>0.70</td> <td>16 dB</td> <td>6 dB</td> <td>16 dB</td> </tr> <tr> <td>Rg 0701 + Fleece</td> <td>0.55(L)</td> <td>D</td> <td>0.45</td> <td>0.70</td> <td>0.70</td> <td>0.55</td> <td>0.55</td> <td>0.45</td> <td>0.65</td> <td>0.65</td> <td>21 dB</td> <td>10 dB</td> <td>22 dB</td> </tr> </tbody> </table>											$\alpha_w$ *	Class	EN ISO 354							NRC**	EN ISO 10848-2 D <sub>n,tw</sub> ***	EN ISO 10140-2 R <sub>w</sub> ****	CAC****	Frequency (Hz) $\alpha_p$							125	250	500	1000	2000	4000	Unperforated	0.10(L)	NC	0.25	0.15	0.05	0.05	0.10	0.10	0.10	0.10	44 dB	19 dB	-	Rg 2516 + Fleece	0.75(L)	C	0.35	0.80	0.95	0.70	0.75	0.75	0.80	0.80	18 dB	8 dB	-	Rd 1522 + Fleece	0.70	C	0.30	0.65	0.90	0.65	0.70	0.75	0.70	0.70	16 dB	6 dB	16 dB	Rg 0701 + Fleece	0.55(L)	D	0.45	0.70	0.70	0.55	0.55	0.45	0.65	0.65	21 dB	10 dB	22 dB
	$\alpha_w$ *	Class	EN ISO 354							NRC**				EN ISO 10848-2 D <sub>n,tw</sub> ***	EN ISO 10140-2 R <sub>w</sub> ****	CAC****																																																																													
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	<small>*as per EN ISO 11654</small>			<small>**as per ASTM C 423-01</small>			<small>***as per EN ISO 717-1</small>			<small>****as per ASTM E 413-10</small>																																																																																			
<b>Fire reaction</b>	Euroclass <b>A1</b> (Unperforated / Perforated + No Infill) Euroclass <b>A2-s2, d0</b> (Perforated + Acoustic Fleece) as per EN 13501-1		RUS <b>KM1 (G1, V1, D1, T1)</b> as per 123-FZ		Values applicable for RAL 9010 only.																																																																																								
<b>Light reflectance</b>	<b>Unperforated</b> 85%	<b>Rg 2516</b> 70%	<b>Rd 1522</b> 65%	<b>Rg 0701</b> 80%	Values applicable for RAL 9010 only.																																																																																								
<b>Humidity resistance</b>	<b>90% RH</b>																																																																																												
<b>Indoor air quality</b>	 A+  E1  Green Cross Plus  Green Cross <small>(TrioGuard™ only)</small>																																																																																												
<b>Cleanability</b>																																																																																													
<b>Sustainability</b>	 <small>*Value applicable for RAL 9010 only.</small>																																																																																												
<b>Design options</b>																																																																																													

[Previous page] METAL Axal Vector (Sheremetyevo Airport, Moscow, Russia, ©Mikhail Feller, Stoppamedia)

 Options with this icon are available from our **Vario Design** range. Some combinations of colours and/or perforations are not available for every product. Products may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website. [knaufceilingsolutions.com](http://knaufceilingsolutions.com)



## Exposed Grid Systems ARMSTRONG METAL Linear & Tartan

B-H 300, B-L 302, R-L 201, K-H 400



- Armstrong METAL Linear combines functionality with stylish simplicity and versatility by creating a linear technical zone.
  - METAL B-H 300: 'Easy' and 'Hook' hinge-down function, 'Swing' swing-down function for easy access to the ceiling void.
  - C-Profiles in different dimensions with optional cut-outs for service integration on request.
  - Easily installed and removed.
  - Available in trapezoidal shapes for radial ceilings on request.
  - Fully configurable large size panels.
  - Additional design options available as part of our **Vario Design** range.
  - Ideal for large spaces and office environments.
- Armstrong METAL Tartan is a solution for square and/or rectangular room partitioning.
  - METAL K-H 400: 'Easy' and 'Hook' hinge-down function, 'Swing' swing-down function for easy access to the ceiling void.
  - Crossing boxes and C-Profiles in different dimensions with optional cut-outs for service integration on request.



## Exposed Grid Systems ARMSTRONG METAL Linear & Tartan

B-H 300, B-L 302, R-L 201, K-H 400

Edge details	METAL B-H 300 [Linear layout]	METAL B-L 302 [Linear layout]	METAL R-L 201 [Linear layout]	METAL K-H 400 [Tartan layout]	[Linear layout]	[Tartan layout]							
<b>System</b>	U-Profile + C-Profile 100mm*	U-Profile + Bandrastrer 100mm	U-Profile + L-Profile	Crossing Box + C-Profile 100mm*	*Further widths on request.								
<b>Dimensions (mm)</b>	Panel length: 600 - 3300 Panel width: 247 - 1350 Max size (m <sup>2</sup> ): 2	Panel length: 600 - 3300 Panel width: 247 - 1350 Max size (m <sup>2</sup> ): 2	Panel length: 600 - 3300 Panel width: 247 - 1350 Max size (m <sup>2</sup> ): 2	Panel length: 600 - 2850 Panel width: 247 - 1350 Max size (m <sup>2</sup> ): 2									
<b>Material &amp; perforations</b>	Post-coated galvanised steel, 0.6 - 0.7mm												
	Unperforated	Standard perforation Rg 2516 Ø: 2.5mm Open area: 16%	Micro-perforation Rd 1522 Ø: 1.5mm Open area: 22%	Extramicro perforation Rg 0701 Ø: 0.7mm Open area: 1.5%									
	<b>Other perforations</b>												
	Rd 1511	Rg 1511	Rg 1821	Rg 3013	Qg 4025								
<b>Colours</b>	RAL 9010												
	<b>Other colours</b>												
	RAL 9003	RAL 9005	RAL 9006	RAL 9007	RAL 9016	Global White							
	<b>Wood effects</b>												
	Ash	Natural Bamboo	Caramel Bamboo	Maple	Oak	American Cherry American Walnut							
<b>Weight</b>	Unperforated 5.7 - 8.9 kg/m <sup>2</sup>	Rg 2516 5.0 - 8.2 kg/m <sup>2</sup>	Rd 1522 4.7 - 7.9 kg/m <sup>2</sup>	Rg 0701 5.7 - 8.9 kg/m <sup>2</sup>	Weight varies depending on the edge detail and acoustic infill.								
<b>Acoustics</b>	EN ISO 354										EN ISO 10848-2	EN ISO 10140-2	
		α <sub>w</sub> *	Class	Frequency (Hz) α <sub>p</sub>						NRC**	D <sub>50w</sub> ***	R <sub>w</sub> ***	CAC****
				125	250	500	1000	2000	4000				
	Unperforated	0.10(L)	NC	0.25	0.15	0.05	0.05	0.10	0.10	0.10	44 dB	19 dB	-
	Rg 2516 + Fleece	0.75(L)	C	0.35	0.80	0.95	0.70	0.75	0.75	0.80	18 dB	8 dB	-
	Rd 1522 + Fleece	0.70	C	0.30	0.65	0.90	0.65	0.70	0.75	0.70	16 dB	6 dB	16 dB
	Rg 0701 + Fleece	0.55(L)	D	0.45	0.70	0.70	0.55	0.55	0.45	0.65	21 dB	10 dB	22 dB
				*as per EN ISO 11654			**as per ASTM C 423-01			***as per EN ISO 717-1		****as per ASTM E 413-10	
<b>Fire reaction</b>	Euroclass <b>A1</b> (Unperforated / Perforated + No Infill + No Gasket) Euroclass <b>A2-s2, d0</b> (Perforated + Acoustic Fleece + No Gasket) Euroclass <b>B-s1, d0</b> (Perforated + Acoustic Fleece + Gasket) as per EN 13501-1			RUS <b>KM1 (G1, V1, D1, T1)</b> as per 123-FZ				Values applicable for RAL 9010 only.					
<b>Light reflectance</b>	Unperforated 85%	Rg 2516 70%	Rd 1522 65%	Rg 0701 80%	Values applicable for RAL 9010 only.								
<b>Humidity resistance</b>	90% RH												
<b>Indoor air quality</b>	A+ (only without gasket)		E1										
<b>Cleanability</b>	[Icons for cleanability]												
<b>Sustainability</b>	[Icons for sustainability: ≈14%, Silver*]												
<b>Design options</b>	[Icons for design options: Dimensions, Colours, Perforations, Shapes, Acoustic Infills, Cut-Outs, Suitable for Chilled Ceilings, BioGuard, Swing-Down Function, Seismic]												

[Previous page] METAL B-H 300, RAL 9006 (Prime Corporate Center, Warsaw, Poland, ©Szymon Polariński)

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## Concealed Grid Systems ARMSTRONG METAL Clip-In

Q-Clip, Q-Clip F, S-Clip F, T-Clip F



- Armstrong METAL Clip-In provides a versatile and sleek design in various perforations and edge details for installation using the U-Profile and DP12 A-Bar suspension system (C-Channel and Spring-T for METAL T-Clip F).
- Concealed grid for a monolithic effect.
- Ease of installation (alignment) and fully demountable.
- Maintenance-friendly system.
- METAL Q-Clip / METAL Q-Clip F available with an optional 'Window' swing-down function.
- METAL S-Clip F with integrated swing-down function.
- METAL Q-Clip / METAL Q-Clip F / METAL T-Clip F tiles available with an optional lock function.
- Additional design options available as part of our **Vario Design** range.
- Used in a variety of ceiling areas: from small service rooms to large commercial office buildings and major transportation terminals.



## Concealed Grid Systems ARMSTRONG METAL Clip-In

Q-Clip, Q-Clip F, S-Clip F, T-Clip F

Edge details	METAL Q-Clip	METAL Q-Clip F	METAL S-Clip F	METAL T-Clip F									
<b>System</b>	U-Profile + DP12 A-Bar	U-Profile + DP12 A-Bar	U-Profile + DP12 A-Bar	C-Channel + Spring-T									
<b>Modules (mm)</b>	600 x 600 625 x 625	500 x 500 600 x 300 625 x 625 600 x 600	625 x 312.5 625 x 625 600 x 600 900 x 300 1200 x 300 1500 x 300	500 x 500 600 x 300 600 x 600 675 x 675 750 x 750 1200 x 300 1200 x 600 1500 x 300									
<b>Material &amp; perforations</b>	Post-coated galvanised steel, 0.5 - 0.6mm												
	Unperforated	Standard perforation <b>Rg 2516</b> Ø: 2.5mm Open area: 16%	Micro-perforation <b>Rd 1522</b> Ø: 1.5mm Open area: 22%	Extramicro perforation <b>Rg 0701</b> Ø: 0.7mm Open area: 1.5%									
	<b>Other perforations</b>												
	Rd 1511	Rg 1511	Rg 1821	Rg 3013  Qg 4025									
<b>Colours</b>	RAL 9010												
	<b>Other colours</b>												
	RAL 9003	RAL 9005	RAL 9006	RAL 9007									
	RAL 9016	Global White	<b>Wood effects</b>										
			Ash	Natural Bamboo									
			Caramel Bamboo	Maple									
			Oak	American Cherry									
			American Walnut										
<b>Weight</b>	<b>Unperforated</b> 4.6 - 5.5 kg/m <sup>2</sup>	<b>Rg 2516</b> 4.0 - 4.8 kg/m <sup>2</sup>	<b>Rd 1522</b> 3.7 - 4.5 kg/m <sup>2</sup>	<b>Rg 0701</b> 4.6 - 5.5 kg/m <sup>2</sup>									
	<i>Weight varies depending on the edge detail and acoustic infill.</i>												
<b>Acoustics</b>	EN ISO 354												
			Frequency (Hz) α <sub>p</sub>						NRC**	D <sub>n,w</sub> ***	R <sub>w</sub> ****	CAC****	
			125	250	500	1000	2000	4000					
	Unperforated	0.10(L)	NC	0.25	0.15	0.05	0.05	0.10	0.10	0.10	44 dB	19 dB	-
	Rg 2516 + Fleece	0.75(L)	C	0.35	0.80	0.95	0.70	0.75	0.75	0.80	18 dB	8 dB	-
	Rd 1522 + Fleece	0.70	C	0.30	0.65	0.90	0.65	0.70	0.75	0.70	16 dB	6 dB	16 dB
	Rg 0701 + Fleece	0.55(L)	D	0.45	0.70	0.70	0.55	0.55	0.45	0.65	21 dB	10 dB	22 dB
				* as per EN ISO 11654			** as per ASTM C 423-01		*** as per EN ISO 717-1		**** as per ASTM E 413-10		
<b>Fire reaction</b>	Euroclass <b>A1</b> (Unperforated / Perforated + No Infill) Euroclass <b>A2-s2, d0</b> (Perforated + Acoustic Fleece) as per EN 13501-1		RUS <b>KM1 (G1, V1, D1, T1)</b> as per 123-FZ			Values applicable for RAL 9010 only.							
<b>Light reflectance</b>	<b>Unperforated</b> 85%	<b>Rg 2516</b> 70%	<b>Rd 1522</b> 65%	<b>Rg 0701</b> 80%									
	Values applicable for RAL 9010 only.												
<b>Humidity resistance</b>	<b>90% RH</b>												
<b>Indoor air quality</b>													
<b>Cleanability</b>		(TrioGuard™ only)											
<b>Sustainability</b>													
	*Value applicable for RAL 9010 only.												
<b>Design options</b>		METAL Q-Clip, METAL Q-Clip F, METAL S-Clip F	METAL Q-Clip, METAL Q-Clip F, METAL T-Clip F	METAL Q-Clip, METAL Q-Clip F	METAL S-Clip F, METAL T-Clip F								
		Colours	Perforations	Acoustic Infills	Cut-Outs	Swing-Down Function	Secure Function	Clean Room	TrioGuard™				

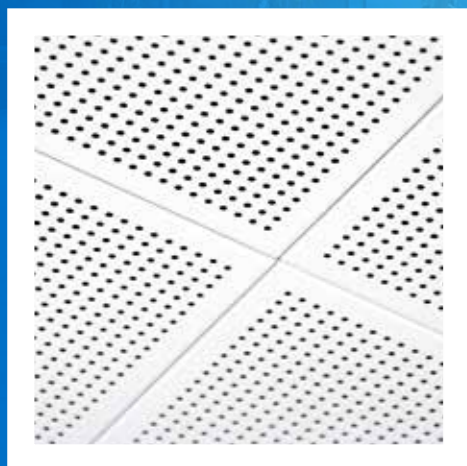
[Previous page] METAL Q-Clip, Rd 1522, RAL 9003 (Zürich Train Station, Passage Sihlquai, Exit Europaallee, Switzerland, © Foto Lautenschlager)

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## Concealed Grid Systems ARMSTRONG METAL Clip-In

R-Clip, R-Clip F, T-Clip, K-Clip



- Armstrong METAL Clip-In provides a versatile and simple design with excellent acoustic performance benefits.
- Concealed grid for a monolithic effect.
- Ease of installation (alignment), fully demountable and maintenance-friendly system.
- Easy access to the ceiling void.
- METAL R-Clip / METAL R-Clip F available with an optional 'Window' swing-down function.
- METAL R-Clip / METAL R-Clip F panels available with an optional lock function.
- Armstrong METAL K-Clip is a cost effective solution, simulating a tartan layout by using METAL Q-Clip tiles or METAL R-Clip panels in combination with exposed crossing boxes and strips.
- Crossing boxes and strips available in different sizes with optional cut-outs for service integration on request.
- Additional design options available as part of our **Vario Design** range.
- Ideal for breaking up large spaces and office environments.



## Concealed Grid Systems ARMSTRONG METAL Clip-In

R-Clip, R-Clip F, T-Clip, K-Clip

<b>Edge details</b>	<b>METAL R-Clip</b> 	<b>METAL R-Clip F</b> 	<b>METAL T-Clip</b> 	<b>METAL K-Clip</b> [Tartan layout] 																				
<b>System</b>	U-Profile + DP12 A-Bar	U-Profile + DP12 A-Bar	C-Channel + Spring-T	U-Profile + DP12 A-Bar Visible Crossing Box + Strips																				
<b>Dimensions/Modules (mm)</b>	Panel length: 600 - 2500 Panel width: 250 - 600 Max size (m²): 1.5	1200 x 300 1200 x 600 1800 x 400	Panel length: 500 - 2500 Panel width: 300 - 400 - 500 - 600 Max size (m²): 1.5	<b>With METAL Q-Clip tiles:</b> 600 x 600 625 x 625 <b>With METAL R-Clip panels:</b> Panel length: 600 - 1800 Panel width: 300 - 600 Max size (m²): 1.08																				
<b>Material &amp; perforations</b>	Post-coated galvanised steel, 0.5 - 0.7mm																							
	Unperforated	Standard perforation <b>Rg 2516</b> Ø: 2.5mm Open area: 16%	Micro-perforation <b>Rd 1522</b> Ø: 1.5mm Open area: 22%	Extramicro perforation <b>Rg 0701</b> Ø: 0.7mm Open area: 1.5%																				
	<b>Other perforations</b>																							
	Rd 1511	Rg 1511	Rg 1821	Rg 3013  Qg 4025																				
<b>Colours</b>	RAL 9010																							
	<b>Other colours</b>			<b>Wood effects</b>																				
	RAL 9003	RAL 9005	RAL 9006	RAL 9007																				
	RAL 9016	Global White	Ash	Natural Bamboo																				
			Caramel Bamboo	Maple																				
			Oak	American Cherry																				
			American Walnut																					
<b>Weight</b>	<b>Unperforated</b> 4.6 - 7.8 kg/m²	<b>Rg 2516</b> 4.0 - 6.6 kg/m²	<b>Rd 1522</b> 3.7 - 6.4 kg/m²	<b>Rg 0701</b> 4.6 - 7.3 kg/m²																				
<b>Acoustics</b>	EN ISO 354										EN ISO 10848-2	EN ISO 10140-2												
		$\alpha_w^*$	Class	Frequency (Hz) $\alpha_p$						NRC**	$D_{n,t,w}^{***}$	$R_w^{****}$	CAC****											
				125	250	500	1000	2000	4000															
	Unperforated	0.10(L)	NC	0.25	0.15	0.05	0.05	0.10	0.10	0.10	44 dB	19 dB	-											
	Rg 2516 + Fleece	0.75(L)	C	0.35	0.80	0.95	0.70	0.75	0.75	0.80	18 dB	8 dB	-											
	Rd 1522 + Fleece	0.70	C	0.30	0.65	0.90	0.65	0.70	0.75	0.70	16 dB	6 dB	16 dB											
	Rg 0701 + Fleece	0.55(L)	D	0.45	0.70	0.70	0.55	0.55	0.45	0.65	21 dB	10 dB	22 dB											
				*as per EN ISO 11654			**as per ASTM C 423-01			***as per EN ISO 717-1		****as per ASTM E 413-10												
<b>Fire reaction</b>	Euroclass <b>A1</b> (Unperforated / Perforated + No Infill) Euroclass <b>A2-s2, d0</b> (Perforated + Acoustic Fleece) as per EN 13501-1		<b>RUS KM1 (G1, V1, D1, T1)</b> as per 123-FZ		Values applicable for RAL 9010 only.																			
<b>Light reflectance</b>	<b>Unperforated</b> 85%	<b>Rg 2516</b> 70%	<b>Rd 1522</b> 65%	<b>Rg 0701</b> 80%	Values applicable for RAL 9010 only.																			
<b>Humidity resistance</b>	<b>90% RH</b>																							
<b>Indoor air quality</b>	A+  E1																							
<b>Cleanability</b>																								
<b>Sustainability</b>	=14% Silver*																							
<b>Design options</b>	Dimensions			Colours			Perforations			Acoustic Infills			Cut-Outs			Swing-Down Function			Secure Function			Clean Room		
	METAL R-Clip, METAL R-Clip F			METAL R-Clip, METAL R-Clip F			METAL R-Clip F																	

[Previous page] METAL R-Clip, Rd 1522, RAL 9010 (Mennica, Warsaw, Poland, © Szymon Polański)

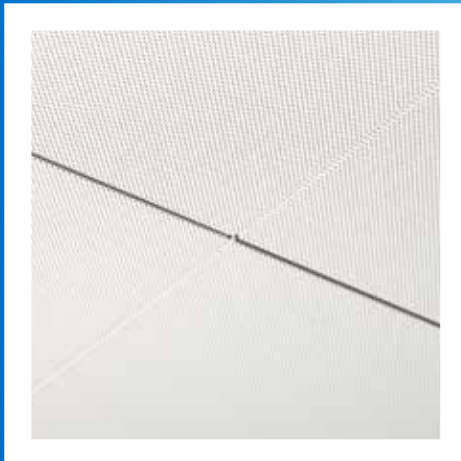
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Concealed Grid Systems

# ARMSTRONG METAL Hook-On

R-H 200, Q-H 100 F, R-H 215, R-H 220, Q-H 120 F



- Armstrong METAL Hook-On provides a versatile and simple design with excellent acoustic performance benefits.
- Concealed grid for a monolithic effect.
- Excellent acoustic performance.
- Ease of installation (alignment) and fully demountable.
- Easy access to the ceiling void.
- Maintenance friendly system.
- METAL R-H 200 is available in trapezoidal shapes for radial ceilings.
- Fully configurable large size panels and cost effective square tile alternatives available.
- Additional design options available as part of our **Vario Design** range.
- Used in a variety of ceiling areas: from small service rooms to large commercial office buildings and major transportation terminals.



Concealed Grid Systems

# ARMSTRONG METAL Hook-On

R-H 200, Q-H 100 F, R-H 215, R-H 220, Q-H 120 F

Edge details	METAL R-H 200	METAL Q-H 100 F	METAL R-H 215	METAL R-H 220	METAL Q-H 120 F																																																																																				
<b>System</b>	U-Profile + J-Bar	U-Profile + J-Bar	U-Profile + H-Profile 35mm	U-Profile + H-Profile 28mm	U-Profile + H-Profile 28mm																																																																																				
<b>Dimensions/Modules (mm)</b>	Panel length: 600 - 3300 Panel width: 247 - 1350 Max size (m <sup>2</sup> ): 2	600 x 600 625 x 625	Panel length: 600 - 3300 Panel width: 247 - 1350 Max size (m <sup>2</sup> ): 2	Panel length: 600 - 3300 Panel width: 247 - 1350 Max size (m <sup>2</sup> ): 2	625 x 625																																																																																				
<b>Material &amp; perforations</b>	Post-coated galvanised steel, 0.5 - 0.6mm																																																																																								
	Unperforated	Standard perforation <b>Rg 2516</b> ∅: 2.5mm Open area: 16%	Micro-perforation <b>Rd 1522</b> ∅: 1.5mm Open area: 22%	Extramicro perforation <b>Rg 0701</b> ∅: 0.7mm Open area: 1.5%																																																																																					
<b>Colours</b>	<p><b>Other perforations</b></p> Rd 1511     Rg 1511     Rg 1821     Rg 3013     Qg 4025																																																																																								
	<p><b>Other colours</b></p> RAL 9003     RAL 9005     RAL 9006     RAL 9007     RAL 9016     Global White																																																																																								
	<p><b>Wood effects</b></p> Ash     Natural Bamboo     Caramel Bamboo     Maple     Oak     American Cherry     American Walnut																																																																																								
<b>Weight</b>	<b>Unperforated</b> 4.5 - 8.1 kg/m <sup>2</sup>	<b>Rg 2516</b> 3.9 - 7.3 kg/m <sup>2</sup>	<b>Rd 1522</b> 3.7 - 7.1 kg/m <sup>2</sup>	<b>Rg 0701</b> 4.5 - 8.0 kg/m <sup>2</sup>	Weight varies depending on the edge detail and acoustic infill.																																																																																				
<b>Acoustics</b>	<table border="1"> <thead> <tr> <th rowspan="3"></th> <th rowspan="3">α<sub>w</sub>*</th> <th rowspan="3">Class</th> <th colspan="7">EN ISO 354</th> <th rowspan="3">NRC**</th> <th rowspan="3">D<sub>n,tw</sub>***</th> <th rowspan="3">R<sub>w</sub>****</th> <th rowspan="3">CAC****</th> </tr> <tr> <th colspan="7">Frequency (Hz) α<sub>w</sub>**</th> </tr> <tr> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td>Unperforated</td> <td>0.10(L)</td> <td>NC</td> <td>0.25</td> <td>0.15</td> <td>0.05</td> <td>0.05</td> <td>0.10</td> <td>0.10</td> <td>0.10</td> <td>44 dB</td> <td>19 dB</td> <td>-</td> </tr> <tr> <td>Rg 2516 + Fleece</td> <td>0.75(L)</td> <td>C</td> <td>0.35</td> <td>0.80</td> <td>0.95</td> <td>0.70</td> <td>0.75</td> <td>0.75</td> <td>0.80</td> <td>18 dB</td> <td>8 dB</td> <td>-</td> </tr> <tr> <td>Rd 1522 + Fleece</td> <td>0.70</td> <td>C</td> <td>0.30</td> <td>0.65</td> <td>0.90</td> <td>0.65</td> <td>0.70</td> <td>0.75</td> <td>0.70</td> <td>16 dB</td> <td>6 dB</td> <td>16 dB</td> </tr> <tr> <td>Rg 0701 + Fleece</td> <td>0.55(L)</td> <td>D</td> <td>0.45</td> <td>0.70</td> <td>0.70</td> <td>0.55</td> <td>0.55</td> <td>0.45</td> <td>0.65</td> <td>21 dB</td> <td>10 dB</td> <td>22 dB</td> </tr> </tbody> </table>											α <sub>w</sub> *	Class	EN ISO 354							NRC**	D <sub>n,tw</sub> ***	R <sub>w</sub> ****	CAC****	Frequency (Hz) α <sub>w</sub> **							125	250	500	1000	2000	4000	Unperforated	0.10(L)	NC	0.25	0.15	0.05	0.05	0.10	0.10	0.10	44 dB	19 dB	-	Rg 2516 + Fleece	0.75(L)	C	0.35	0.80	0.95	0.70	0.75	0.75	0.80	18 dB	8 dB	-	Rd 1522 + Fleece	0.70	C	0.30	0.65	0.90	0.65	0.70	0.75	0.70	16 dB	6 dB	16 dB	Rg 0701 + Fleece	0.55(L)	D	0.45	0.70	0.70	0.55	0.55	0.45	0.65	21 dB	10 dB	22 dB
	α <sub>w</sub> *	Class	EN ISO 354							NRC**				D <sub>n,tw</sub> ***	R <sub>w</sub> ****	CAC****																																																																									
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Rd 1522 + Fleece	0.70	C	0.30	0.65	0.90	0.65	0.70	0.75	0.70	16 dB	6 dB	16 dB																																																																													
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<b>Fire reaction</b>	Euroclass <b>A1</b> (Unperforated / Perforated + No Infill + No Gasket; except METAL Q-H 100 F) Euroclass <b>A2-s2, d0</b> (Perforated + Acoustic Fleece + No Gasket; except METAL Q-H 100 F) Euroclass <b>B-s1, d0</b> (Perforated + Acoustic Fleece + Gasket; except METAL Q-H 120 F) as per EN 13501-1			<b>RUS KM1 (G1, V1, D1, T1)</b> as per 123-FZ		Values applicable for RAL 9010 only.																																																																																			
<b>Light reflectance</b>	<b>Unperforated</b> 85%	<b>Rg 2516</b> 70%	<b>Rd 1522</b> 65%	<b>Rg 0701</b> 80%	Values applicable for RAL 9010 only.																																																																																				
<b>Humidity resistance</b>	<b>90% RH</b>																																																																																								
<b>Indoor air quality</b>	A+ (only without gasket)     E1																																																																																								
<b>Cleanability</b>	(TrioGuard™ only)																																																																																								
<b>Sustainability</b>	≈14%    Silver*																																																																																								
<b>Design options</b>																																																																																									

[Previous page] METAL R-H 200 (Rathaus St. Gallen, Switzerland, © Beat Bühler)

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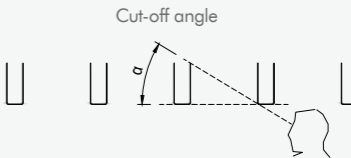



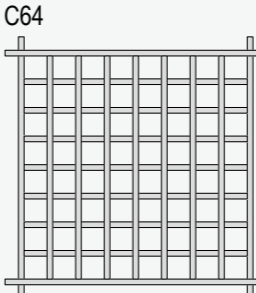
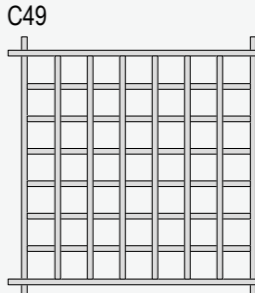
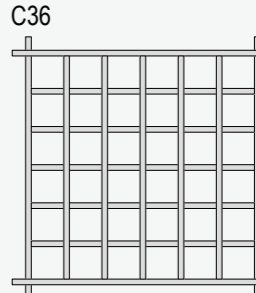
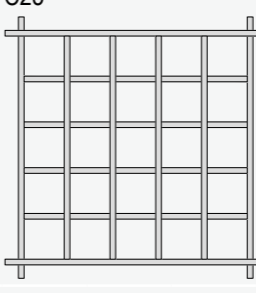
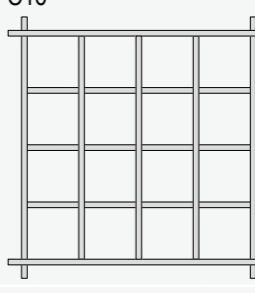
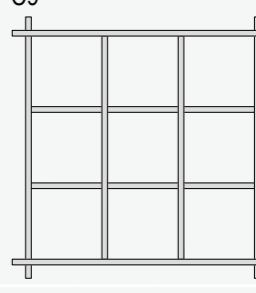

















## Open Cell Systems ARMSTRONG METAL Lay-In Cellio




- Armstrong METAL Cellio durable open cell metal tiles that mask the plenum provide 100% accessibility to lighting, ventilation and sprinklers with an homogeneous appearance.
- Made of pre-coated galvanised steel 0.3mm.
- Lay-In system is fast and easy to install in standard 15mm exposed grid.
- Ideal for shops, supermarkets, shopping malls, entrance areas, airports, railway stations and showrooms.



## Open Cell Systems ARMSTRONG METAL Lay-In Cellio

<b>Edge details</b>	 <b>METAL Cellio</b> 	 					
<b>System</b>	 Exposed demountable - System C (15mm T-Grid, butt-cut)						
<b>Modules (mm)</b>	 600 x 600						
<b>Material &amp; design</b>	 Pre-coated galvanised steel, 0.3mm						
		<b>Cellio C64</b>	<b>Cellio C49</b>	<b>Cellio C36</b>	<b>Cellio C25</b>	<b>Cellio C16</b>	<b>Cellio C9</b>
	Cell module size:	75 x 75 x 37mm	86 x 86 x 37mm	100 x 100 x 37mm	120 x 120 x 37mm	150 x 150 x 37mm	200 x 200 x 37mm
	Open area:	64%	68%	72%	76%	81%	85%
	Cut off angle:	31°	27°	23°	19°	15°	11°
							
							
<b>Colours</b>	  Global White						
	 <b>Other Colours</b>						
	 RAL 9005	 RAL 9006					
<b>Weight</b>	 <b>C64</b> 5.3 kg/m <sup>2</sup>	<b>C49</b> 4.6 kg/m <sup>2</sup>	<b>C36</b> 3.9 kg/m <sup>2</sup>	<b>C25</b> 3.3 kg/m <sup>2</sup>	<b>C16</b> 2.6 kg/m <sup>2</sup>	<b>C9</b> 2.2 kg/m <sup>2</sup>	
<b>Fire reaction</b>	 Euroclass <b>A1</b> as per EN 13501-1						
<b>Humidity resistance</b>	 <b>90% RH</b>						
<b>Indoor air quality</b>	  A+						
<b>Cleanability</b>	    						
<b>Sustainability</b>	  ≈14%						

[Previous page] METAL Cellio C64 (Nikola Tesla Airport, Belgrade, Serbia, © Sandro Lendler)

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## Free Span Corridor Systems

# ARMSTRONG METAL Clip-In, Hook-On, Lay-In

F-Clip Access, F-H 600, F-H 600 Swing, F-H 600 Swing EI30, F-L 601



- Armstrong METAL Corridor is a rectangular panel free-span solution that simply spans between the walls, allowing for easy installation and access to services.
- METAL F-L 601 with various perimeter trim solutions for a clean aesthetic finish.
- Adjustable perimeter shadow gap detailing for METAL F-Clip Access and METAL F-H 600.
- Easy, quick access to ceiling void due to swing-down functions (METAL F-Clip Access and METAL F-H 600 Swing).
- METAL F-H 600 Swing EI30 fire resistant ceiling (a <> b) with an additional layer of Knauf plasterboard fixed to the back of the panels and an intumescent tape sealing the gaps.
- METAL F-Clip Access panels available with an optional lock function.
- Fully configurable large size panels.
- Additional design options available as part of our Vario Design range.
- Used in corridors where the panels simply span between walls.



## Free Span Corridor Systems

# ARMSTRONG METAL Clip-In, Hook-On, Lay-In

F-Clip Access, F-H 600, F-H 600 Swing, F-H 600 Swing EI30, F-L 601

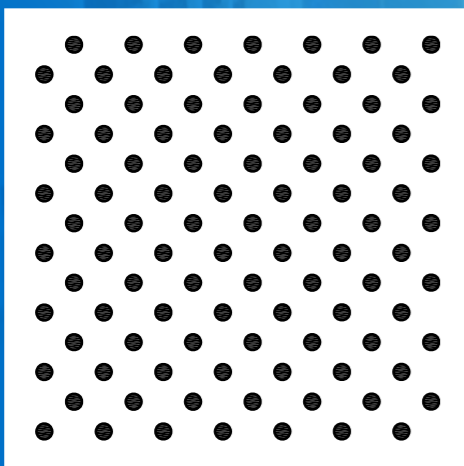
Edge details	METAL F-Clip Access	METAL F-H 600	METAL F-H 600 Swing	METAL F-H 600 Swing EI30	METAL F-L 601							
<b>System</b>	Wall Bracket + Half DP12 A-Bar (optional DP12 A-Bar)	Wall Bracket + J-Bar	Wall Bracket + G-Profile	Wall Profile EI30 + G-Profile EI30	Perimeter Trim							
<b>Dimensions (mm)</b>	Panel length: 600 - 2500 Panel width: 250 - 600 Max size (m <sup>2</sup> ): 1.5	Panel length: 600 - 3300 Panel width: 247 - 1350 Max size (m <sup>2</sup> ): 2	Panel length: 600 - 3300 Panel width: 247 - 1350 Max size (m <sup>2</sup> ): 2	Panel length: 600 - 2700 Panel width: 247 - 397	Panel length: 600 - 3300 Panel width: 247 - 1350 Max size (m <sup>2</sup> ): 2							
<b>Material &amp; perforations</b>	Post-coated galvanised steel, 0.6 - 0.7mm											
	Unperforated	Standard perforation Rg 2516 Ø: 2.5mm Open area: 16%	Micro-perforation Rd 1522 Ø: 1.5mm Open area: 22%	Extramicro perforation Rg 0701 Ø: 0.7mm Open area: 1.5%								
	<b>Other perforations</b>											
	Rd 1511	Rg 1511	Rg 1821	Rg 3013	Qg 4025							
<b>Colours</b>	RAL 9010											
	<b>Other colours</b>											
	RAL 9003	RAL 9005	RAL 9006	RAL 9007	RAL 9016							
	Global White											
	<b>Wood effects</b>											
	Ash	Natural Bamboo	Caramel Bamboo	Maple	Oak							
	American Cherry	American Walnut										
<b>Weight</b>	<b>Unperforated</b> 5.7 - 7.4 kg/m <sup>2</sup>	<b>Rg 2516</b> 5.0 - 6.6 kg/m <sup>2</sup>	<b>Rd 1522</b> 4.7 - 6.4 kg/m <sup>2</sup>	<b>Rg 0701</b> 5.7 - 7.3 kg/m <sup>2</sup>	Weight varies depending on the edge detail and acoustic infill.							
<b>Acoustics</b>	EN ISO 354										EN ISO 10848-2	EN ISO 10140-2
<b>Fire reaction</b>	Euroclass <b>A1</b> (METAL F-Clip Access, F-H 600, F-L 601: Unperforated / Perforated + No Infill + No Gasket)			Euroclass <b>A2-s2, d0</b> (METAL F-Clip Access, F-H 600, F-L 601: Perforated + Acoustic Fleece + No Gasket)		Euroclass <b>B-s1, d0</b> (METAL F-H 600 Swing, F-L 601: Perforated + Acoustic Fleece + Gasket)		RUS <b>KM1 (G1, V1, D1, T1)</b> as per 123-FZ		Values applicable for RAL 9010 solutions only.		
<b>Light reflectance</b>	<b>Unperforated</b> 85%	<b>Rg 2516</b> 70%	<b>Rd 1522</b> 65%	<b>Rg 0701</b> 80%	Values applicable for RAL 9010 solutions only.							
<b>Humidity resistance</b>	<b>90% RH</b>											
<b>Indoor air quality</b>												
<b>Cleanability</b>												
<b>Sustainability</b>												
<b>Design options</b>												

[Previous page] METAL F-Clip Access, Unperforated (Linz AG Center, Linz, Austria, © Elisabeth Grebe)

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



## Free Span Corridor Systems AMF Kombimetall



- AMF Kombimetall is a combination of a metal surface and mineral tile core.
- The combination fulfils the highest performance requirements in fire protection and acoustics.
- Used in association with AMF THERMATEX® mineral tiles, AMF Kombimetall provides the safety and ease of installation of a functional ceiling with the high quality finish of a metal ceiling.
- Ideally suited for corridors applications where the panels simply span between walls.
- Bandraster for room installation available on request.



## Free Span Corridor Systems AMF Kombimetall

<b>Edge details</b>	 <b>SL2</b>	 <b>K2C2</b>																																																								
<b>System</b>	Perimeter Trim	Perimeter Trim																																																								
<b>Dimensions (mm)</b>	1600 x 300 x 22 1800 x 300 x 22 2000 x 300 x 22 2500 x 300 x 22	1600 x 300 x 22 1800 x 300 x 22 2000 x 300 x 22 2500 x 300 x 22																																																								
<b>Material &amp; perforations</b>	Pre-coated aluminium, 0.7 mm																																																									
	 Unperforated	 Perforated Ø: 2.5mm Open area: 15%																																																								
<b>Colours</b>	 RAL 9010																																																									
<b>Weight</b>	9.5 kg/m <sup>2</sup>																																																									
<b>Acoustics</b>	<table border="1"> <thead> <tr> <th rowspan="3"></th> <th rowspan="3"><math>\alpha_w</math>*</th> <th rowspan="3">Class</th> <th colspan="7">EN ISO 354</th> <th>EN ISO 10848-2</th> </tr> <tr> <th colspan="7">Frequency (Hz) <math>\alpha_p</math>**</th> <th rowspan="2">NRC**</th> <th rowspan="2">D<sub>n,tw</sub>***</th> </tr> <tr> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td>Unperforated</td> <td>0.20(L)</td> <td>E</td> <td>0.35</td> <td>0.30</td> <td>0.30</td> <td>0.20</td> <td>0.10</td> <td>0.10</td> <td>0.25</td> <td>-</td> </tr> <tr> <td>Perforated</td> <td>0.65(H)</td> <td>C</td> <td>0.35</td> <td>0.45</td> <td>0.60</td> <td>0.75</td> <td>0.90</td> <td>0.80</td> <td>0.70</td> <td>42 dB</td> </tr> </tbody> </table> <p>* as per EN ISO 11654      ** as per ASTM C 423-01      *** as per EN ISO 717-1</p>											$\alpha_w$ *	Class	EN ISO 354							EN ISO 10848-2	Frequency (Hz) $\alpha_p$ **							NRC**	D <sub>n,tw</sub> ***	125	250	500	1000	2000	4000	Unperforated	0.20(L)	E	0.35	0.30	0.30	0.20	0.10	0.10	0.25	-	Perforated	0.65(H)	C	0.35	0.45	0.60	0.75	0.90	0.80	0.70	42 dB
	$\alpha_w$ *	Class	EN ISO 354							EN ISO 10848-2																																																
			Frequency (Hz) $\alpha_p$ **							NRC**				D <sub>n,tw</sub> ***																																												
			125	250	500	1000	2000	4000																																																		
Unperforated	0.20(L)	E	0.35	0.30	0.30	0.20	0.10	0.10	0.25	-																																																
Perforated	0.65(H)	C	0.35	0.45	0.60	0.75	0.90	0.80	0.70	42 dB																																																
<b>Fire reaction</b>	Euroclass <b>A2-s1, d0</b> as per EN 13501-1																																																									
<b>Light reflectance</b>	<b>Unperforated</b> 85%		<b>Perforated Ø 2.5 mm</b> 70%																																																							
<b>Humidity resistance</b>	<b>90% RH</b>																																																									
<b>Cleanability</b>																																																										

[Previous page] AMF Kombimetall (Realschule, Grafenau, Germany)

Options with this icon are available from our **Vario Design** range. Some combinations of colours and/or perforations are not available for every product. Products may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website. [knaufceilingsolutions.com](http://knaufceilingsolutions.com)





## Vertical Baffle Systems METAL Baffle Element (METAL Baffle / V-P 500) Individual / Grouped

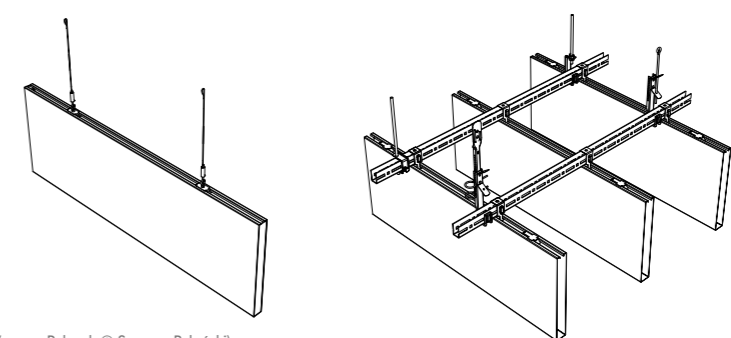


- METAL Baffle Element solutions are typically used in acoustically-challenged spaces - airports, rail terminals, semi-exposed soffit buildings, offices, retail, leisure centres, etc.
- Linear layout.
- Fully configurable solution with variable baffles spacing.
- Different baffle height combinations and radial installations possible.
- Suitable solution for corridors.
- Quick and easy to install with adjustable hanging wires (individual).
- Installed on a U-profile system for a perfect alignment and with optional face covers (grouped).
- Delivered with an acoustic pad fitted inside.
- Further dimensions and options available on request.
- Easy service integration into the ceiling space.
- Additional design options available as part of our Vario Design range.



## Vertical Baffle Systems METAL Baffle Element Individual / Grouped

<b>Edge details</b>	<b>METAL Baffle Element [Individual]</b>	<b>METAL Baffle Element [Grouped]</b>
<b>System</b>	METAL Baffle Element Hanging Wire Kit (length 4000mm) Face covers and connectors available as separate items. <i>Not included.</i>	U-Profile
<b>Dimensions (mm)</b>	1800 x 300 x 30 <i>Available in 2 pieces/carton.</i>	Baffle length: various dimensions Baffle width: 30 Baffle height: 150 / 200 / 250 / 300
<b>Material &amp; perforations</b>	Powder-coated galvanised steel, 0.7mm	Unperforated Standard perforation <b>Rg 2516</b> Micro-perforation <b>Rd 1522</b> Extramicro perforation <b>Rg 0701</b> (both vertical sides) Acoustic pad 25mm, 25 kg/m <sup>3</sup>
	Ø: 2.5mm Open area: 16% Ø: 1.5mm Open area: 22% Ø: 0.7mm Open area: 1.5%	
	<b>Other perforations</b>	
	Rd 1511 Rg 1511 Rg 1821 Rg 3013 Qg 4025	
<b>Colours</b>	RAL 9010 <b>Vario Design colours</b> Granite Steel Green Marble Copper Oak Brass Sandstone Concrete RAL 9003 RAL 9005 RAL 9006 RAL 9007 RAL 9016 <b>Wood effects</b> Ash Natural Bamboo Caramel Bamboo Maple Oak American Cherry American Walnut	
<b>Weight</b>	<b>Unperforated</b> 2.0 - 3.6 kg/lm <b>Rg 2516</b> 1.7 - 3.1 kg/lm <b>Rd 1522</b> 1.6 - 2.9 kg/lm <b>Rg 0701</b> 1.9 - 3.5 kg/lm <i>Weight depending on perforation and length chosen.</i>	
<b>Acoustics</b>	Acoustic performances will depend on baffle heights, row distance between the baffles and distance from the soffit. Acoustic values available on request.	
<b>Fire reaction</b>	Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <i>Values applicable for RAL 9010 solutions only.</i>	
<b>Humidity resistance</b>	<b>90% RH</b>	
<b>Indoor air quality</b>	A E1	
<b>Cleanability</b>	1 2 3 4 5 (Unperforated only)	
<b>Sustainability</b>	~14% EPD 1	



[Previous page] METAL Baffle Element, Grouped (E&Y, Warsaw, Poland, © Szymon Polański)

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## Vertical Baffle Systems

# METAL Baffle Sky Element

(METAL V-K 500)  
Grouped



- METAL Baffle Sky Element is an acoustic ceiling system well suited to busy and noisy open plan spaces.
- Crossed layout.
- Delivered as a kit of predefined baffle types in different lengths for standard fields sizes.
- Simple to assemble, no cutting required.
- Easy service integration into the ceiling space.
- Further dimensions and options available on request.
- Additional design options available as part of our Vario Design range.

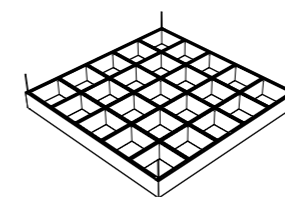


## Vertical Baffle Systems

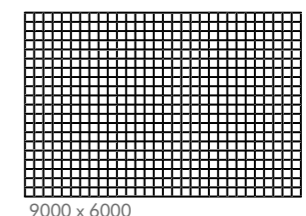
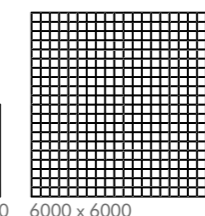
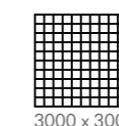
# METAL Baffle Sky Element

Grouped

<b>Edge details</b>	<b>METAL Baffle Sky Element</b> <small>vd</small>				
<b>System</b>	Direct suspended (by threaded rod)				
<b>Dimensions (mm)</b>	Standard modules/fields: 3000 x 3000 x 30 6000 x 6000 x 30 9000 x 6000 x 30				
<b>Material &amp; perforations</b>	Post-coated galvanised steel, 0.7mm				
	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  Unperforated         </div> <div style="text-align: center;">  Standard perforation <b>Rg 2516</b>  <small>Ø: 2.5mm Open area: 16%</small> </div> <div style="text-align: center;">  Micro-perforation <b>Rd 1522</b>  <small>Ø: 1.5mm Open area: 22%</small> </div> <div style="text-align: center;">  Extramicro perforation <b>Rg 0701</b>  <small>Ø: 0.7mm Open area: 1.5%</small> </div> </div>				
	<b>vd Other perforations</b> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> Rd 1511</div> <div style="text-align: center;"> Rg 1511</div> <div style="text-align: center;"> Rg 1821</div> <div style="text-align: center;"> Rg 3013</div> <div style="text-align: center;"> Qg 4025</div> </div>				
<b>Colours</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  RAL 9010         </div> <div style="width: 45%;"> <b>vd Vario Design colours</b>  <div style="display: grid; grid-template-columns: repeat(5, 1fr); gap: 5px;"> <div style="text-align: center;"> Granite</div> <div style="text-align: center;"> Steel</div> <div style="text-align: center;"> Green Marble</div> <div style="text-align: center;"> Copper</div> <div style="text-align: center;"> Oak</div> <div style="text-align: center;"> Brass</div> <div style="text-align: center;"> Sandstone</div> <div style="text-align: center;"> Concrete</div> <div style="text-align: center;"> RAL 9003</div> <div style="text-align: center;"> RAL 9005</div> <div style="text-align: center;"> RAL 9006</div> <div style="text-align: center;"> RAL 9007</div> <div style="text-align: center;"> RAL 9016</div> </div> </div> <div style="width: 45%;"> <b>vd Wood effects*</b> <small>*Baffles only.</small>  <div style="display: grid; grid-template-columns: repeat(4, 1fr); gap: 5px;"> <div style="text-align: center;"> Ash</div> <div style="text-align: center;"> Natural Bamboo</div> <div style="text-align: center;"> Caramel Bamboo</div> <div style="text-align: center;"> Maple</div> <div style="text-align: center;"> Oak</div> <div style="text-align: center;"> American Cherry</div> <div style="text-align: center;"> American Walnut</div> </div> </div> </div>				
<b>Weight</b>	<table border="0" style="width: 100%;"> <tr> <td style="width: 25%;"><b>Unperforated</b> 2.0 - 3.6 kg/lm</td> <td style="width: 25%;"><b>Rg 2516</b> 1.7 - 3.1 kg/lm</td> <td style="width: 25%;"><b>Rd 1522</b> 1.6 - 2.9 kg/lm</td> <td style="width: 25%;"><b>Rg 0701</b> 1.9 - 3.5 kg/lm</td> </tr> </table>	<b>Unperforated</b> 2.0 - 3.6 kg/lm	<b>Rg 2516</b> 1.7 - 3.1 kg/lm	<b>Rd 1522</b> 1.6 - 2.9 kg/lm	<b>Rg 0701</b> 1.9 - 3.5 kg/lm
<b>Unperforated</b> 2.0 - 3.6 kg/lm	<b>Rg 2516</b> 1.7 - 3.1 kg/lm	<b>Rd 1522</b> 1.6 - 2.9 kg/lm	<b>Rg 0701</b> 1.9 - 3.5 kg/lm		
<b>Acoustics</b>	Acoustic performances will depend on baffle heights, row distance between the baffles and distance from the soffit. Acoustic values available on request.				
<b>Fire reaction</b>	Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <span style="float: right;"><small>Values applicable for RAL 9010 solutions only.</small></span>				
<b>Humidity resistance</b>	<b>90% RH</b>				
<b>Indoor air quality</b>					
<b>Cleanability</b>					
<b>Sustainability</b>					
<b>Design options</b>					



Layouts



[Previous page] METAL Baffle Sky Element (© Knauf Ceiling Solutions)

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## Floating Canopy Systems METAL Sonic Element (METAL Canopy) Individual

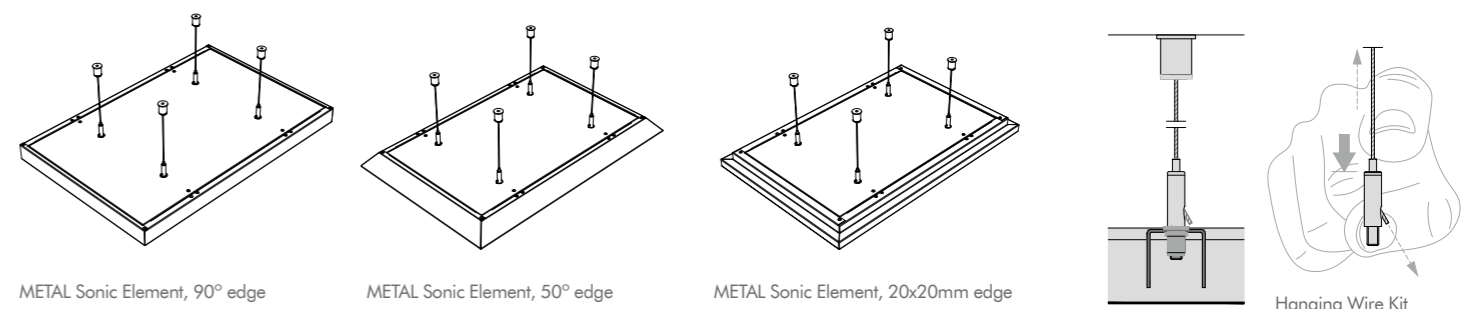


- **METAL Sonic Element** is a fully configurable metal canopy. It is suspended by an adjustable hanging wire kit and is quick and easy to install.
- Metal provides a high-value appearance.
- Fully configurable solution, available with different edge details (90°/50°/20x20mm edge).
- An optional rear cover with perforation and an acoustic pad allows for better sound absorption and 360° visibility.
- An easy to install retrofit solution that can be used under an existing ceiling.
- Can be installed as a wall absorber by using a wall hanging kit (see **METAL Wallcoustic Element**).
- Resistant and durable.
- Ideal for showrooms, entrance halls, transport hubs, meeting rooms, retail and waiting areas.



## Floating Canopy Systems METAL Sonic Element Individual

<b>Edge details</b>	<b>METAL Sonic Element</b> [90° edge]	<b>METAL Sonic Element</b> [50° edge]	<b>METAL Sonic Element</b> [20 x 20mm edge]																																																
<b>System</b>	Hanging Wire Kit M6 (length 4000mm)		Not included																																																
<b>Dimensions (mm)</b>	Panel length: 600 - 1800 Panel width: 600 - 1200 Panel thickness: 40																																																		
<b>Material &amp; perforations</b>	Post-coated galvanised steel, 0.7mm																																																		
<b>Colours</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;">  RAL 9010         </div> <div style="width: 40%;"> <b>va Vario Design colours</b> <table border="0"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Granite</td> <td>Steel</td> <td>Green Marble</td> <td>Copper</td> <td>Oak</td> <td>Brass</td> <td>Sandstone</td> <td>Concrete</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td colspan="3"></td> </tr> <tr> <td>RAL 9003</td> <td>RAL 9005</td> <td>RAL 9006</td> <td>RAL 9007</td> <td>RAL 9016</td> <td colspan="3"></td> </tr> </table> </div> <div style="width: 25%;"> <b>va Wood effects</b> <table border="0"> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Ash</td> <td>Natural Bamboo</td> <td>Caramel Bamboo</td> <td>Maple</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Oak</td> <td>American Cherry</td> <td>American Walnut</td> <td></td> </tr> </table> </div> </div>											Granite	Steel	Green Marble	Copper	Oak	Brass	Sandstone	Concrete									RAL 9003	RAL 9005	RAL 9006	RAL 9007	RAL 9016								Ash	Natural Bamboo	Caramel Bamboo	Maple					Oak	American Cherry	American Walnut	
Granite	Steel	Green Marble	Copper	Oak	Brass	Sandstone	Concrete																																												
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Ash	Natural Bamboo	Caramel Bamboo	Maple																																																
Oak	American Cherry	American Walnut																																																	
<b>Weight</b>	<b>Unperforated</b> 4.3 - 26.0 kg/m <sup>2</sup>	<b>Rg 2516</b> 4.0 - 23.0 kg/m <sup>2</sup>	<b>Rd 1522</b> 3.9 - 21.9 kg/m <sup>2</sup>																																																
<b>Fire reaction</b>	Euroclass <b>A1</b> (Unperforated / Perforated + No Infill) Euroclass <b>A2-s2, d0</b> (Perforated + Acoustic Fleece) as per EN 13501-1		<b>Rg 0701</b> 4.3 - 25.7 kg/m <sup>2</sup> <i>Values applicable for RAL 9010 solutions only.</i>																																																
<b>Light reflectance</b>	<b>Unperforated</b> 85%	<b>Rg 2516</b> 70%	<b>Rd 1522</b> 65%																																																
<b>Humidity resistance</b>	<b>90% RH</b>																																																		
<b>Indoor air quality</b>	A+  E1																																																		
<b>Cleanability</b>	 (Unperforated only)																																																		
<b>Sustainability</b>	≈14%  EPD  GreenStar Silver*																																																		
<b>Design options</b>	Dimensions  Colours  Perforations  Acoustic Infills  Cut-Outs																																																		



[Previous page] METAL Sonic Element, 90° edge (Community Room, Penzlin, Germany, © Bernd Gallandi)

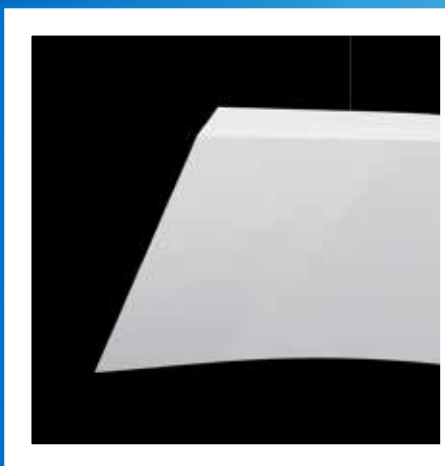
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## Floating Canopy Systems

# METAL Sonic Element Arc

(METAL Canopy Concave & Convex)  
Individual



- **METAL Sonic Element Arc** is a range of floating solutions. Easily suspended from the building structure, they define spaces and help accentuate an area.
- With a 360° visibility, they provide focus and create ceiling sculptures while controlling sound reverberation.
- Define spaces without any visible frame or grid.
- Adjust to various heights and angles.
- An easy to install retrofit solution that can be used under an existing ceiling.
- Visible sides are extramicro perforated to offer a smooth appearance, while standard perforation on the rear side allows for better sound absorption.
- Ideal for showrooms, entrance halls, transport hubs, meeting rooms, retail and waiting areas.

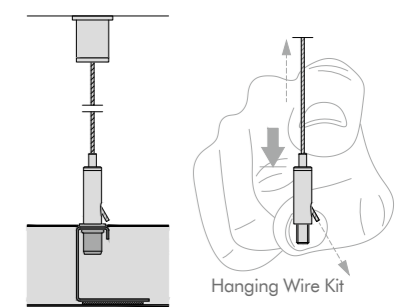
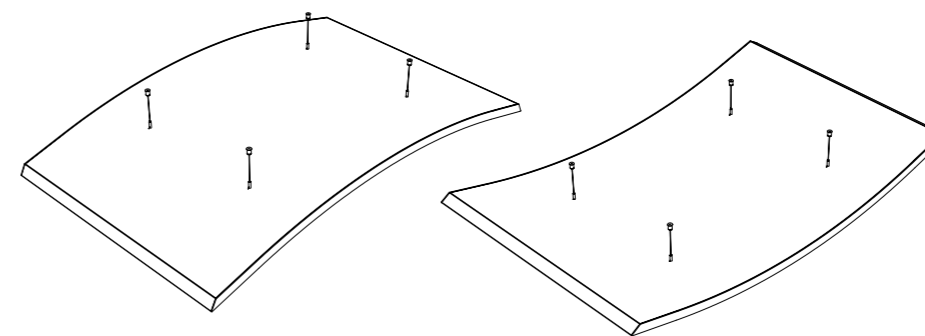


## Floating Canopy Systems

# METAL Sonic Element Arc

Individual

<b>Edge details</b>	<b>METAL Sonic Element Arc Concave</b>	<b>METAL Sonic Element Arc Convex</b>
	1890	1890
<b>System</b>	Hanging Wire Kit M6 (length 4000mm)	Included
<b>Dimensions (mm)</b>	<b>Concave</b> 1890 x 1181 x 40	<b>Convex</b> 1890 x 1181 x 40
<b>Material &amp; Perforations</b>	Powder-coated galvanised steel panels, 0.7mm	
	<b>Front side</b> Extramicro perforation <b>Rg 0701</b> Ø: 0.7mm Open area: 1.5%	<b>Rear side</b> Standard perforation <b>Rg 2516</b> Ø: 2.5mm Open area: 16%
	Black acoustic fleece + acoustic pad 20mm, 25 kg/m <sup>3</sup>	
<b>Colours</b>	RAL 9010	<b>Vario Design Colours</b> Granite Steel Green Marble Copper Oak Brass Sandstone Concrete
<b>Weight</b>	<b>Concave</b> 28.3 kg/pc	<b>Convex</b> 28.3 kg/pc
<b>Acoustics</b>	EN ISO 354	
	Frequency (Hz) α <sub>p</sub> *	
		125 250 500 1000 2000 4000
	Concave	0.80 1.50 2.50 2.80 2.60 2.20
	Convex	0.80 1.50 2.50 2.80 2.60 2.20
	*Values shown are the average of the 3 one third octave band value.	
<b>Fire reaction</b>	Euroclass <b>B-s2, d0</b> as per EN 13501-1	
<b>Light reflectance</b>	<b>80%</b>	
<b>Humidity resistance</b>	<b>90% RH</b>	
<b>Indoor air quality</b>	A+ E1	
<b>Cleanability</b>	(Unperforated only)	
<b>Sustainability</b>	EN ISO 14001  EN ISO 14001 =14%  RECYCLED WOOD  FSC C020000 America	



[Previous page] METAL Sonic Element Arc, Concave (Nice Airport, France, © Grigori Rassinier)

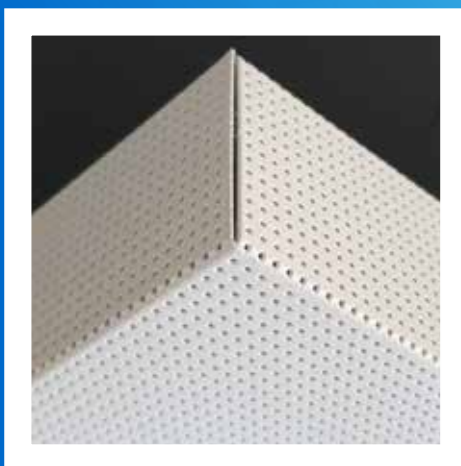
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## Floating Canopy Systems

# METAL Sky Element Clip / Hook

(METAL D-Clip / D-H 700)  
Grouped



- METAL Sky Element Clip and METAL Sky Element Hook systems are floating modular solutions for optimum flexibility. The product range features Clip-In and Hook-On rectangular panels that can be arranged to create distinctive design elements. In combination with Knauf Ceiling Solutions suspension systems it allows a minimal-height installation without any extra engineering required.
- Modular concept for optimum flexibility with fully configurable large size panels. Installed in a row or as a single item.
- Standard, end and single panels available.
- Modern absorber solution for exposed concrete soffit.
- METAL Sky Element Clip with optional swing-down function or lock function.
- METAL Sky Element Hook is suitable for chilled ceilings.
- Additional design options available as part of our Vario Design range.
- Ideal for offices, meeting rooms, retail, auditoriums, multi-purpose halls and cafeterias.



## Floating Canopy Systems

# METAL Sky Element Clip / Hook

Grouped

Edge details	METAL Sky Element Clip	METAL Sky Element Hook																																																								
System	U-Profile + DP12 A-Bar	U-Profile (cross connected)																																																								
Dimensions (mm)	Panel length: 600 - 2500 Panel width: 250 - 600 Max size (m <sup>2</sup> ): 1.5	Panel length: 600 - 2750 (in steps of 25mm) Panel width: 250 - 600 (in steps of 25mm) Max size (m <sup>2</sup> ): 1.65																																																								
Material & perforations	Post-coated galvanised steel, 0,6 - 0,7mm																																																									
	Unperforated	Standard perforation <b>Rg 2516</b> Ø: 2.5mm Open area: 16%            Micro-perforation <b>Rd 1522</b> Ø: 1.5mm Open area: 22%            Extramicro perforation <b>Rg 0701</b> Ø: 0.7mm Open area: 1.5%																																																								
	<b>vo Other perforations</b>																																																									
	Rd 1511	Rg 1511            Rg 1821            Rg 3013            Qg 4025																																																								
Colours	RAL 9010 <b>vo Vario Design colours</b> Granite            Steel            Green Marble            Copper            Oak            Brass            Sandstone            Concrete <b>vo Wood effects</b> Ash            Natural Bamboo            Caramel Bamboo            Maple            Oak            American Cherry            American Walnut            RAL 9003            RAL 9005            RAL 9006            RAL 9007            RAL 9016																																																									
Weight	<b>Unperforated</b> 6.4 - 9.5 kg/m <sup>2</sup>	<b>Rg 2516</b> 5.6 - 8.8 kg/m <sup>2</sup> <b>Rd 1522</b> 5.3 - 8.5 kg/m <sup>2</sup> <b>Rg 0701</b> 6.3 - 9.4 kg/m <sup>2</sup> <small>Weight varies depending on the edge detail and acoustic infill.</small>																																																								
Acoustics	EN ISO 354 <table border="1"> <thead> <tr> <th rowspan="2"></th> <th rowspan="2"><math>\alpha_w</math>**</th> <th rowspan="2">Class</th> <th colspan="6">Frequency (Hz) <math>\alpha_p</math></th> <th rowspan="2">NRC**</th> </tr> <tr> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td>Unperforated</td> <td>0.10(L)</td> <td>NC</td> <td>0.25</td> <td>0.15</td> <td>0.05</td> <td>0.05</td> <td>0.10</td> <td>0.10</td> <td>0.10</td> </tr> <tr> <td>Rg 2516 + Fleece</td> <td>0.75(L)</td> <td>C</td> <td>0.35</td> <td>0.80</td> <td>0.95</td> <td>0.70</td> <td>0.75</td> <td>0.75</td> <td>0.80</td> </tr> <tr> <td>Rd 1522 + Fleece</td> <td>0.70</td> <td>C</td> <td>0.30</td> <td>0.65</td> <td>0.90</td> <td>0.65</td> <td>0.70</td> <td>0.75</td> <td>0.70</td> </tr> <tr> <td>Rg 0701 + Fleece</td> <td>0.55(L)</td> <td>D</td> <td>0.45</td> <td>0.70</td> <td>0.70</td> <td>0.55</td> <td>0.55</td> <td>0.45</td> <td>0.65</td> </tr> </tbody> </table> <small>*as per EN ISO 11654      **as per ASTM C 423-01</small>			$\alpha_w$ **	Class	Frequency (Hz) $\alpha_p$						NRC**	125	250	500	1000	2000	4000	Unperforated	0.10(L)	NC	0.25	0.15	0.05	0.05	0.10	0.10	0.10	Rg 2516 + Fleece	0.75(L)	C	0.35	0.80	0.95	0.70	0.75	0.75	0.80	Rd 1522 + Fleece	0.70	C	0.30	0.65	0.90	0.65	0.70	0.75	0.70	Rg 0701 + Fleece	0.55(L)	D	0.45	0.70	0.70	0.55	0.55	0.45	0.65
	$\alpha_w$ **	Class				Frequency (Hz) $\alpha_p$							NRC**																																													
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Unperforated	0.10(L)	NC	0.25	0.15	0.05	0.05	0.10	0.10	0.10																																																	
Rg 2516 + Fleece	0.75(L)	C	0.35	0.80	0.95	0.70	0.75	0.75	0.80																																																	
Rd 1522 + Fleece	0.70	C	0.30	0.65	0.90	0.65	0.70	0.75	0.70																																																	
Rg 0701 + Fleece	0.55(L)	D	0.45	0.70	0.70	0.55	0.55	0.45	0.65																																																	
Fire reaction	Euroclass <b>A1</b> (Perforated + No Infill) Euroclass <b>A2-s2, d0</b> (Perforated + Acoustic Fleece) as per EN 13501-1	RUS <b>KM1 (G1, V1, D1, T1)</b> as per 123-FZ	<small>Values applicable for RAL 9010 solutions only.</small>																																																							
Light reflectance	<b>Unperforated</b> 85%	<b>Rg 2516</b> 70%	<b>Rd 1522</b> 65%	<b>Rg 0701</b> 80%	<small>Values applicable for RAL 9010 solutions only.</small>																																																					
Humidity resistance	<b>90% RH</b>																																																									
Indoor air quality	A+            E1																																																									
Cleanability	(Unperforated only)            (TrioGuard™ only)																																																									
Sustainability	EN ISO 14001            EPD            EN ISO 14001            Green Building            Silver* <small>*Value applicable for RAL 9010 solutions only.</small>																																																									
Design options	Dimensions            Colours            Perforations            Acoustic Infills            Cut-Outs            Swing-Down Function            Secure Function            TrioGuard™		METAL Sky Element Clip    METAL Sky Element Clip    METAL Sky Element Hook																																																							

[Previous page] METAL Sky Element Hook, Rd 1522, RAL 9010 (Siemens, Rome, Italy, ©Beppe Raso)

**vo** Options with this icon are available from our Vario Design range. Products may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.



## Wall Systems METAL Wallcoustic Element (METAL Canopy Wall Absorber) Individual



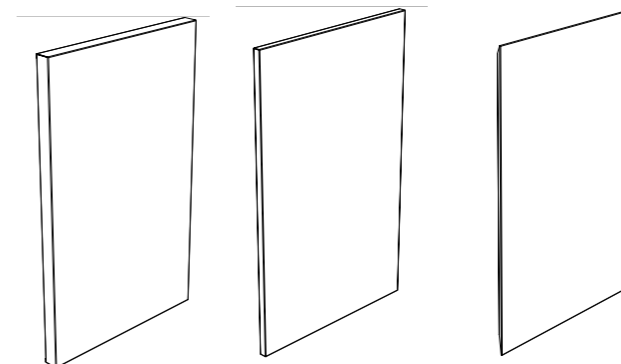
- METAL Wallcoustic Element is a range of wall solutions that help structure and define spaces and accentuate an area. They provide a focus or create wall sculptures that help control sound reverberation within a space.
- Simple and fast installation by using a wall hanging kit.
- Durable, easy to clean and maintain.
- Fully configurable solution, available with different edge details (90°/50°/20x20mm edge).
- Optional with an acoustic pad allow for better sound absorption.
- The same product can be installed as a ceiling canopy (see METAL Sonic Element).
- The product can be installed upright or reclined.
- Additional design options available as part of our **Vario Design** range.
- Ideal for offices, meeting rooms, retail auditoriums, multi-purpose halls and cafeterias.



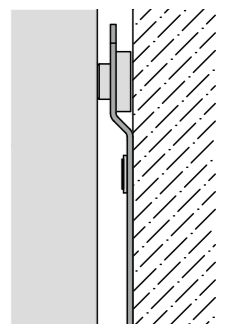
## Wall Systems METAL Wallcoustic Element Individual

<b>Edge details</b>	<b>METAL Wallcoustic Element</b> <sup>vo</sup> [90° edge]	<b>METAL Wallcoustic Element</b> <sup>vo</sup> [50° edge]	<b>METAL Wallcoustic Element</b> <sup>vo</sup> [20 x 20mm edge]
<b>System</b>	Wall Hanging Kit (4 fixing points to the wall)		Not included
<b>Dimensions (mm)</b>	Panel length: 600 - 1800 Panel width: 600 - 1200 Panel thickness: 40		
<b>Material &amp; perforations</b>	Post-coated galvanised steel, 0,7mm		
	Standard perforation <b>Rg 2516</b> Ø: 2.5mm Open area: 16%	Micro-perforation <b>Rd 1522</b> Ø: 1.5mm Open area: 22%	Extramicro perforation <b>Rg 0701</b> Ø: 0.7mm Open area: 1.5%
<b>Colours</b>	<b>Vario Design colours</b>		<b>Wood effects</b>
	RAL 9010 Granite Steel Green Marble Copper Oak Brass Sandstone Concrete RAL 9003 RAL 9005 RAL 9006 RAL 9007 RAL 9016		Ash Natural Bamboo Caramel Bamboo Maple Oak American Cherry American Walnut
<b>Weight</b>	<b>Unperforated</b> 4.3 - 26.0 kg/m <sup>2</sup>	<b>Rg 2516</b> 4.0 - 23.0 kg/m <sup>2</sup>	<b>Rd 1522</b> 3.9 - 21.9 kg/m <sup>2</sup>
<b>Light reflectance</b>	<b>Rg 2516</b> 70%	<b>Rd 1522</b> 65%	<b>Rg 0701</b> 80%
<b>Humidity resistance</b>	<b>90% RH</b>		
<b>Indoor air quality</b>	 A+    E1		
<b>Cleanability</b>	 (Unperforated only)		
<b>Sustainability</b>	≈14% EPD GreenStar Silver*		
<b>Design options</b>	Dimensions Colours Perforations Acoustic infills Cut-Outs		

METAL Wallcoustic Element  
(90° / 50° / 20x20mm edge)



Wall Hanging Kit



[Previous page] METAL Wallcoustic Element, 20 x 20mm edge, Rd 1522 / 90° edge, Rg 2516 / 50° edge, Rg 0701, RAL 9007 (©Knauf Ceiling Solutions)

<sup>vo</sup> Options with this icon are available from our **Vario Design** range. Products may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.







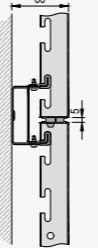
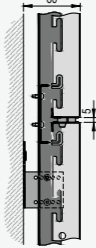








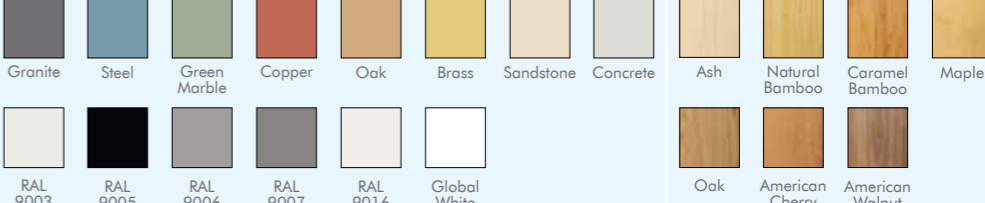






Wall Systems  
**METAL Wallcoustic Horizon 1000 / 1100**  
 (METAL W-H 1000 / W-H 1100)  
 Grouped

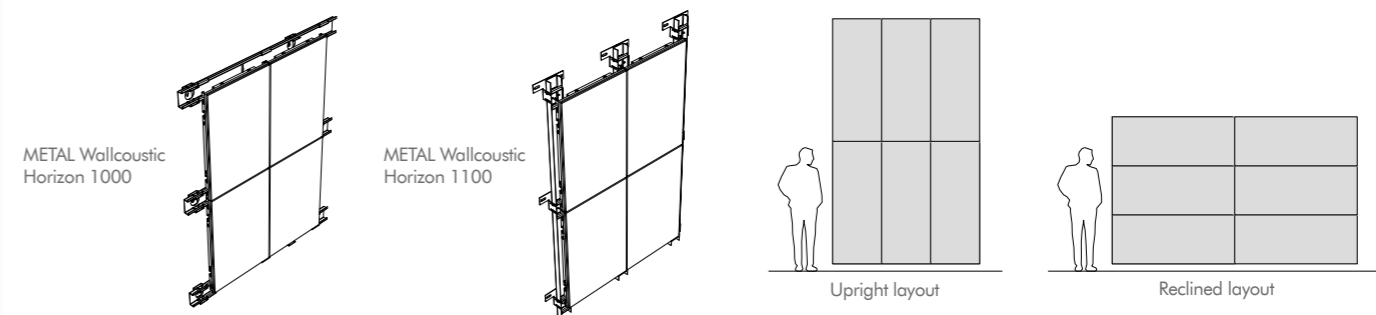


- METAL Wallcoustic Horizon 1000 and METAL Wallcoustic Horizon 1100 are Hook-On wall cladding systems without visible fasteners which enable faster installation.
- Space saving system with a small adjustable offset distance.
- Panels can be oriented upright or reclined.
- METAL Wallcoustic Horizon 1000 with C-Wall profile is installed horizontally, while METAL Wallcoustic Horizon 1100 with U-Wall profile is installed vertically. The size and orientation of the panels will guide the choice of a system over the other.
- Fast to install and dismantle.
- A complete wall solution that meets the acoustic performance of a space.
- Additional design options available as part of our **Vario Design** range.
- Acoustic and architectural design elements for market segments such as office, education or transportation.



Wall Systems  
**METAL Wallcoustic Horizon 1000 / 1100**  
 Grouped

<b>Edge details</b>	 <b>METAL Wallcoustic Horizon 1000</b> 	 <b>METAL Wallcoustic Horizon 1100</b> 
		
<b>System</b>	 C-Wall Profile	U-Wall Profile
<b>Dimensions (mm)</b>	Panel length: 600 - 3000 Panel width: 250 - 1000 Max size (m <sup>2</sup> ): 3	Panel length: 600 - 3000 Panel width: 250 - 1000 Max size (m <sup>2</sup> ): 3
<b>Material &amp; perforations</b>	Post-coated galvanised steel, 1.0mm	
	 Unperforated	 Standard perforation <b>Rg 2516</b> Ø: 2.5mm Open area: 16%
		 Micro-perforation <b>Rd 1522</b> Ø: 1.5mm Open area: 22%
	<b>Other perforations</b>	
	 Rd 1511	 Rg 1511
		 Rg 3013
<b>Colours</b>	 RAL 9010	<b>Vario Design colours</b>
		
<b>Weight</b>	 <b>Unperforated</b> 8.6 - 11.3 kg/m <sup>2</sup>	<b>Rg 2516</b> 7.3 - 10.0 kg/m <sup>2</sup>
		<b>Rd 1522</b> 6.7 - 9.6 kg/m <sup>2</sup>
<b>Light reflectance</b>	 <b>Unperforated</b> 85%	<b>Rg 2516</b> 70%
		<b>Rd 1522</b> 65%
<b>Humidity resistance</b>	 <b>90% RH</b>	
<b>Cleanability</b>	 (Unperforated only)	
<b>Sustainability</b>	 ~14% Silver*	
<b>Design options</b>		



[Previous page] METAL Wallcoustic Horizon 1100 (Dubai International Airport, Dubai, UAE, © Beppe Roso)

**vo** Options with this icon are available from our **Vario Design** range. Products may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.



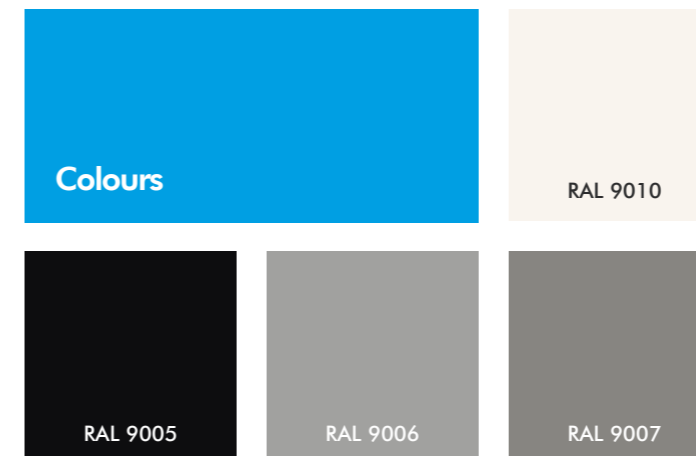
# MESH SOLUTIONS

Knauf Ceiling Solutions offers a wide range of mesh ceiling systems to create bold modern aesthetics.

From predefined panels to variable modules, corridor solutions and canopies, all systems can be configured as part of our Vario Design range, providing a wide choice of shapes, dimensions, patterns and colours to meet your specific design needs.

## COLOURS

Knauf Ceiling Solutions standard colour for mesh ceilings RAL 9010 (Pure White) and 3 additional Vario Design colours.



Further colours available on request.

## MESH vs. MESH MT

### MESH

Visible side with 90° upturn on all four edges and welded stiffening profiles inside.



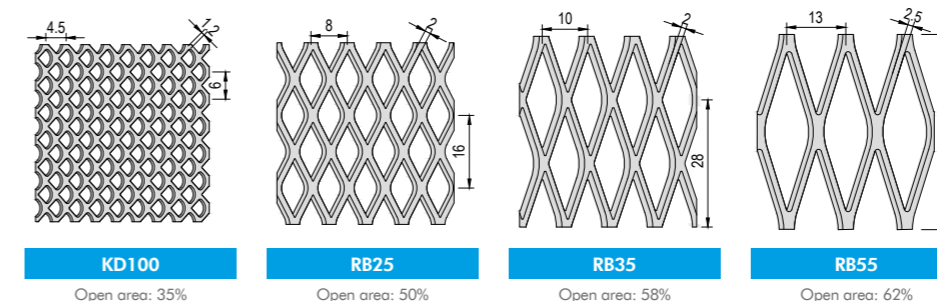
### MESH MT

(MicroTack Technology) Flat visible side, without upturn, with welded stiffening profiles on all edges.

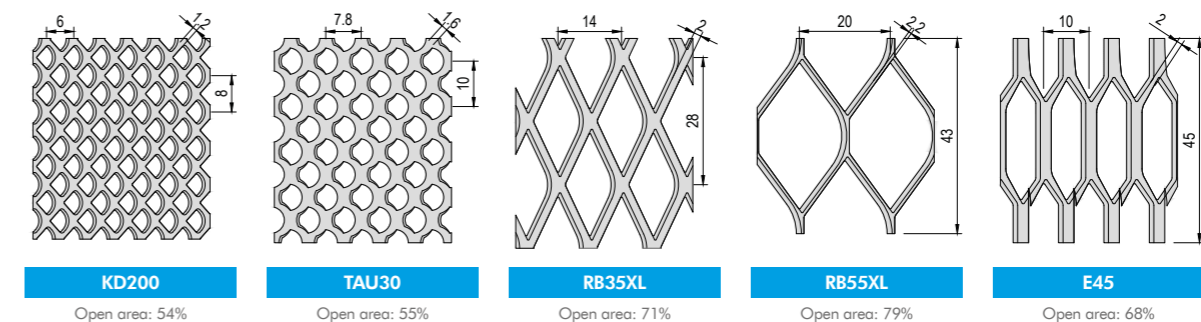


## PATTERNS

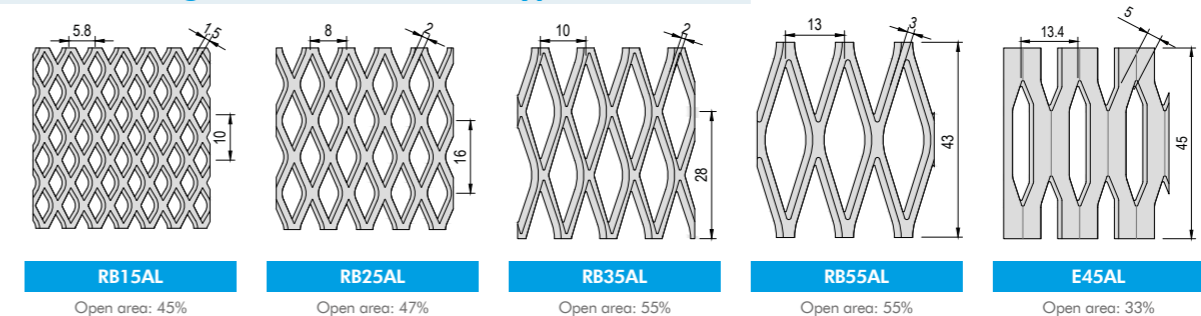
### Standard - Steel Mesh Types



### Vario Design - Steel Mesh Types



### Vario Design - Aluminium Mesh Types



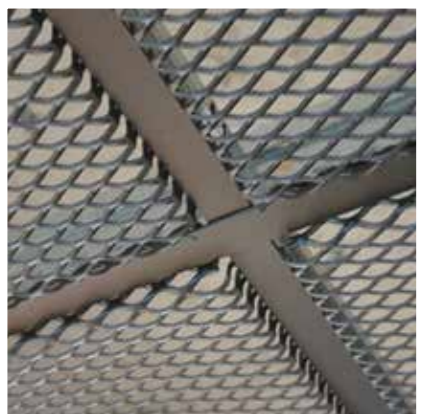
[Previous page] MESH Board, RAL 9005 (Univerexport, Novi Sad, Serbia, © Marko Cvetkovic Cvele)

MESH patterns are directional.





## Exposed Grid Systems ARMSTRONG MESH Lay-In Board, Tegular, MicroLook



- Use **Armstrong MESH Lay-In** to achieve an industrial and contemporary look.
- Installed with standard exposed suspension systems.
- High open area solution.
- Additional design options available as part of our **Vario Design** range.
- Ideal choice for transport hubs, renovation projects wanting a modern touch and in general spaces with large ceiling areas.



**Armstrong**  
CEILING SOLUTIONS

## Exposed Grid Systems ARMSTRONG MESH Lay-In Board, Tegular, MicroLook

Edge details	MESH Board	MESH Tegular 8	MESH Tegular 14	MESH MicroLook 8
<b>System</b>	Exposed demountable - System C (24mm T-Grid, butt-cut)	Exposed demountable - System C (24mm T-Grid)	Exposed demountable - System C (24mm T-Grid, butt-cut)	Exposed demountable - System C (15mm T-Grid, butt-cut)
<b>Modules (mm)</b>	600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600	625 x 625	600 x 600
<b>Material &amp; patterns</b>	Galvanised steel KD100 / RB25 = 1.0mm RB35 / RB55 = 1.5mm (only for MESH Board)			
	<b>KD100</b> Q6 x 4.5 - 1.2 x 1 Open area: 35%	<b>RB25</b> R16 x 8 - 2 x 1 Open area: 50%	<b>RB35</b> R28 x 10 - 2 x 1.5 Open area: 58%	<b>RB55</b> R43 x 13 - 2.5 x 1.5 Open area: 62%
<b>Colours</b>	RAL 9010 <b>Other colours</b> RAL 9005    RAL 9006    RAL 9007			
<b>Weight</b>	<b>KD100</b> 4.1 - 4.4 kg/m <sup>2</sup>	<b>RB25</b> 4.0 - 4.3 kg/m <sup>2</sup>	<b>RB35</b> 4.8 kg/m <sup>2</sup>	<b>RB55</b> 4.3 kg/m <sup>2</sup>
<b>Fire reaction</b>	Euroclass <b>A2-s1, d0</b> as per EN 13501-1			<b>RUS KM1 (G1, V1, D1, T1)</b> as per 123-FZ <small>Values applicable for RAL 9010 solutions only.</small>
<b>Humidity resistance</b>	<b>95% RH</b>			
<b>Indoor air quality</b>	<b>A+</b>			
<b>Cleanability</b>				
<b>Sustainability</b>				<small>*Value applicable for RAL 9010 solutions only.</small>
<b>Design options</b>				

[Previous page] MESH MicroLook 8, RB25, RAL 9010 (77 Newman Street, London, UK, © Dave Parker)

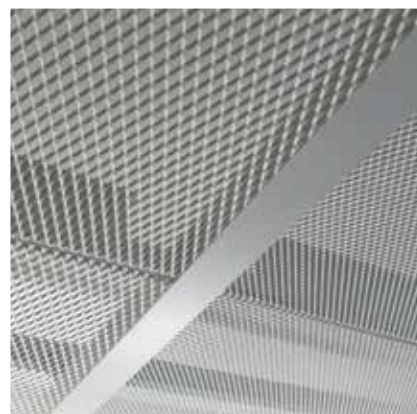
Options with this icon are available from our **Vario Design** range. Some combinations of colours and/or perforations are not available for every product. Products may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website. [knaufceilingsolutions.com](http://knaufceilingsolutions.com)



## Exposed Grid Systems

# ARMSTRONG MESH Linear & Tartan

B-H 300, B-H 300 MT, K-H 400, K-H 400 MT, R-L 201, R-L 201 MT, B-L 302, B-L 302 MT

























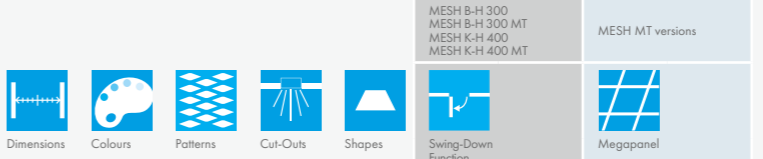
- **Armstrong MESH Linear & Tartan** combines functionality with stylish simplicity and is ideal for breaking up larger ceiling spaces. Its high open area is perfect for any industrial look inspiration.
  - MESH – visible side with 90° upturn on all four edges and welded stiffening profiles inside.
  - MESH MT (MicroTack Technology) – flat visible side, without upturn, with welded stiffening profiles on all edges.
- |   |  |
|---|--|
| <p><b>MESH B-H 300</b></p> <ul style="list-style-type: none"> <li>• 'Easy' swing-down function for easy access to the ceiling void.</li> <li>• C-Profiles available in different dimensions with optional cut-outs for service integration on request.</li> </ul> | <p><b>MESH K-H 400</b></p> <ul style="list-style-type: none"> <li>• 'Easy' swing-down function for easy access to the ceiling void.</li> <li>• Crossing boxes and C-Profiles available in different dimensions with optional cut-outs for service integration on request.</li> </ul> |
|---|--|
- Fully configurable large size panels.
  - Radial ceilings with trapezoidal panels on request.
  - Additional design options available as part of our **Vario Design** range.
  - Ideal for open spaces and large rooms with flexible partitioning.



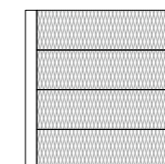
## Exposed Grid Systems

# ARMSTRONG MESH Linear & Tartan

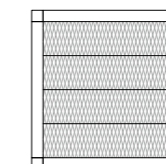
B-H 300, B-H 300 MT, K-H 400, K-H 400 MT, R-L 201, R-L 201 MT, B-L 302, B-L 302 MT

<b>Edge details</b>	 <b>MESH B-H 300</b> <sup>vo</sup> [Linear layout]	 <b>MESH B-H 300 MT</b> <sup>vo</sup> [Linear layout]	 <b>MESH K-H 400</b> <sup>vo</sup> [Tartan layout]	 <b>MESH K-H 400 MT</b> <sup>vo</sup> [Tartan layout]	
<b>System</b>	U-Profile + C-Profile 100mm*	U-Profile + C-Profile 100mm*	Crossing Box + C-Profile 100mm*	Crossing Box + C-Profile 100mm*	*Further widths on request.
<b>Edge details</b>	 <b>MESH R-L 201</b> <sup>vo</sup> [Linear layout]	 <b>MESH R-L 201 MT</b> <sup>vo</sup> [Linear layout]	 <b>MESH B-L 302</b> <sup>vo</sup> [Linear layout]	 <b>MESH B-L 302 MT</b> <sup>vo</sup> [Linear layout]	
<b>System</b>	U-Profile + L-Profile	U-Profile + L-Profile	U-Profile + Bandraster 100mm	U-Profile + Bandraster 100mm	
<b>Dimensions (mm)</b>	<b>KD100</b> Panel length: 597 - 1500 Panel width: 247 - 500 Max size (m <sup>2</sup> ): 1.75		<b>RB25</b> Panel length: 597 - 2500 <b>RB35</b> Panel width: 247 - 700 <b>RB55</b> Max size (m <sup>2</sup> ): 1.75		
<b>Material &amp; patterns</b>	Galvanised steel KD100 / RB25 = 1.0mm (KD100 not available for MT version) RB35 / RB55 = 1.5mm				
	 <b>KD100</b> Q6 x 4.5 - 1.2 x 1 Open area: 35%	 <b>RB25</b> R16 x 8 - 2 x 1 Open area: 50%	 <b>RB35</b> R28 x 10 - 2 x 1.5 Open area: 58%	 <b>RB55</b> R43 x 13 - 2.5 x 1.5 Open area: 62%	
<b>Colours</b>	 RAL 9010				
	<b>vo Other colours</b>				
	 RAL 9005	 RAL 9006	 RAL 9007		
<b>Weight</b>	 <b>KD100</b> 8.2 - 14.5 kg/m <sup>2</sup>	<b>RB25</b> 6.9 - 14.3 kg/m <sup>2</sup>	<b>RB35</b> 7.8 - 15.5 kg/m <sup>2</sup>	<b>RB55</b> 7.3 - 14.8 kg/m <sup>2</sup>	
<b>Fire reaction</b>	 Euroclass <b>A2-s1, d0</b> as per EN 13501-1			<b>RUS KM1 (G1, V1, D1, T1)</b> as per 123-FZ <small>Values applicable for RAL 9010 solutions only.</small>	
<b>Humidity resistance</b>	 <b>95% RH</b>				
<b>Indoor air quality</b>	 A+				
<b>Cleanability</b>					
<b>Sustainability</b>	 =14% Silver*				
<b>Design options</b>					

Linear layout



Tartan layout



[Previous page] MESH K-H 400 MT, custom 70% open area, RAL 9005 (65 Gresham Street, London, UK, © Tom Green)

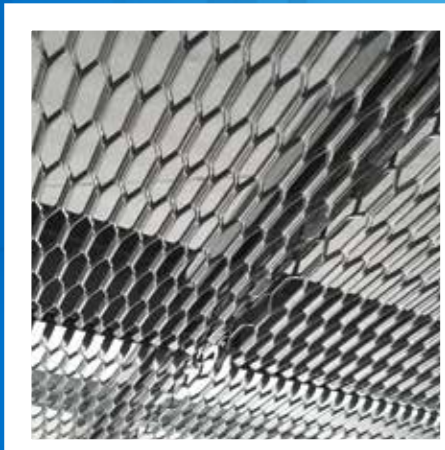
<sup>vo</sup> Options with this icon are available from our **Vario Design** range.  
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[knaufceilingsolutions.com](http://knaufceilingsolutions.com)



Concealed Grid Systems

# ARMSTRONG MESH Clip-In, Hook-On

R-Clip, R-H 200, R-H 200 MT, R-H 215, R-H 215 MT




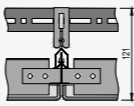






































- Armstrong MESH Clip-In & Hook-On combines functionality with stylish simplicity and is ideal for breaking up larger ceiling spaces. Its high open area is perfect for any industrial look inspiration.
- MESH – visible side with 90° upturn on all four edges and welded stiffening profiles inside.
- MESH MT (MicroTack Technology) – flat visible side, without upturn, with welded stiffening profiles on all edges.
- MESH R-Clip / MESH R-H 200 / MESH R-H 200 MT available with lock function.
- MESH R-H 200 / MESH R-H 200 MT available in trapezoidal shapes for radial ceilings.
- Fully configurable large size panels.
- Additional design options available as part of our **Vario Design** range.
- Ideal for open spaces and large rooms with flexible partitioning.



Concealed Grid Systems

# ARMSTRONG MESH Clip-In, Hook-On

R-Clip, R-H 200, R-H 200 MT, R-H 215, R-H 215 MT

<b>Edge details</b>	 <b>MESH R-Clip</b>				
<b>System</b>	 U-Profile + DP12 A-Bar				
<b>Dimensions (mm)</b>	 <b>RB25</b> Panel length: 597 - 2500 <b>RB35</b> Panel width: 247 - 700 <b>RB55</b> Max size (m <sup>2</sup> ): 1.75				
<b>Edge details</b>	 <b>MESH R-H 200</b>	 <b>MESH R-H 200 MT</b>	 <b>MESH R-H 215</b>	 <b>MESH R-H 215 MT</b>	X = Mesh thickness
<b>System</b>	 U-Profile + J-Bar	 U-Profile + J-Bar	 U-Profile + H-Profile 35mm	 U-Profile + H-Profile 35mm	
<b>Dimensions (mm)</b>	 <b>KD100</b> Panel length: 597 - 1500 Panel width: 247 - 500 Max size (m <sup>2</sup> ): 1.75		 <b>RB25</b> Panel length: 597 - 2500 <b>RB35</b> Panel width: 247 - 700 <b>RB55</b> Max size (m <sup>2</sup> ): 1.75		
<b>Material &amp; patterns</b>	Galvanised steel KD100 / RB25 = 1.0mm (KD100 not available for MT version and R-Clip) RB35 / RB55 = 1.5mm				
	 <b>KD100</b> Q6 x 4.5 - 1.2 x 1 Open area: 35%	 <b>RB25</b> R16 x 8 - 2 x 1 Open area: 50%	 <b>RB35</b> R28 x 10 - 2 x 1.5 Open area: 58%	 <b>RB55</b> R43 x 13 - 2.5 x 1.5 Open area: 62%	
<b>Colours</b>	  RAL 9010				
	<b>Other colours</b>				
	 RAL 9005	 RAL 9006	 RAL 9007		
<b>Weight</b>	 <b>KD100</b> 8.1 - 15.3 kg/m <sup>2</sup>	<b>RB25</b> 6.0 - 15.0 kg/m <sup>2</sup>	<b>RB35</b> 6.8 - 16.3 kg/m <sup>2</sup>	<b>RB55</b> 6.3 - 15.6 kg/m <sup>2</sup>	
<b>Fire reaction</b>	 Euroclass <b>A2-s1, d0</b> as per EN 13501-1			<b>RUS KM1 (G1, V1, D1, T1)</b> as per 123-FZ	Values applicable for RAL 9010 solutions only.
<b>Humidity resistance</b>	 <b>95% RH</b>				
<b>Indoor air quality</b>	  A+				
<b>Cleanability</b>	   				
<b>Sustainability</b>	 =14%		 Silver*		*Value applicable for RAL 9010 solutions only.
<b>Design options</b>	 Dimensions	 Colours	 Patterns	 Cut-Outs	 Shapes
				 Secure Function	

[Previous page] MESH R-H 215, RB35, RAL 9006 (Automobilklub, Warsaw, Poland, ©Szymon Polański)

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## Free Span Corridor Systems

# ARMSTRONG MESH Clip-In, Hook-On, Lay-In

F-Clip Access, F-H 600, F-H 600 MT, F-L 601, F-L 601 MT



- Armstrong MESH Free Span Corridor Systems provide a versatile design solution for busy corridor applications.
- Flexible with easy and quick access to the ceiling void.
- MESH – visible side with 90° upturn on all four edges and welded stiffening profiles inside.
- MESH MT (MicroTack Technology) – flat visible side, without upturn, with welded stiffening profiles on all edges.
- MESH F-L 601 / MESH F-L 601 MT with various perimeter trim solutions for a clean aesthetic finish.
- Adjustable perimeter shadow gap detailing for MESH F-Clip / MESH F-H 600 / MESH F-H 600 MT.
- Fully configurable large size panels.
- Additional design options available as part of our **Vario Design** range.
- Ideal for open spaces and large rooms with flexible partitioning.



## Free Span Corridor Systems

# ARMSTRONG MESH Clip-In, Hook-On, Lay-In

F-Clip, F-H 600, F-H 600 MT, F-L 601, F-L 601 MT

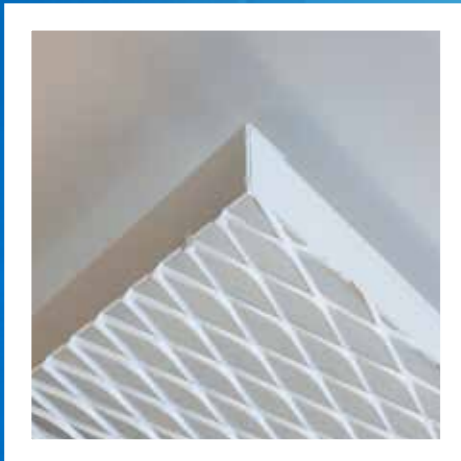
<b>Edge details</b>		<b>MESH F-Clip</b>			
<b>System</b>		Wall Bracket + Half DP12 A-Bar (optionally DP12 A-Bar)			
<b>Dimensions (mm)</b>		<b>RB25</b> Panel length: 597 - 2500 <b>RB35</b> Panel width: 247 - 700 <b>RB55</b> Max size (m <sup>2</sup> ): 1.75			
<b>Edge details</b>					X = Mesh thickness
<b>System</b>					
<b>Dimensions (mm)</b>		<b>KD100</b> Panel length: 597 - 1500 Panel width: 247 - 500 Max size (m <sup>2</sup> ): 1.75		<b>RB25</b> Panel length: 597 - 2500 <b>RB35</b> Panel width: 247 - 700 <b>RB55</b> Max size (m <sup>2</sup> ): 1.75	
<b>Material &amp; patterns</b>		Galvanised steel KD 100 / RB25 = 1.0mm (KD100 not available for MT version and F-Clip) RB35 / RB55 = 1.5mm			
	Q6 x 4.5 - 1.2 x 1 Open area: 35%	R16 x 8 - 2 x 1 Open area: 50%	R28 x 10 - 2 x 1.5 Open area: 58%	R43 x 13 - 2.5 x 1.5 Open area: 62%	
<b>Colours</b>		RAL 9010 <b>Other colours</b> RAL 9005 RAL 9006 RAL 9007			
<b>Weight</b>		<b>KD100</b> 8.2 - 15.0 kg/m <sup>2</sup>	<b>RB25</b> 6.9 - 14.8 kg/m <sup>2</sup>	<b>RB35</b> 7.8 - 16.0 kg/m <sup>2</sup>	<b>RB55</b> 7.3 - 15.3 kg/m <sup>2</sup>
<b>Fire reaction</b>		Euroclass <b>A2-s1, d0</b> as per EN 13501-1			RUS <b>KM1 (G1, V1, D1, T1)</b> as per 123-FZ <i>Values applicable for RAL 9010 solutions only.</i>
<b>Humidity resistance</b>		<b>95% RH</b>			
<b>Indoor air quality</b>		 A+			
<b>Cleanability</b>					
<b>Sustainability</b>					<i>*Value applicable for RAL 9010 solutions only.</i>
	~14%	Silver*			
<b>Design options</b>					
	Dimensions	Colours	Patterns	Cut-Outs	Shapes
					Secure Function

[Previous page] MESH F-L 601, RB35, RAL 9005 (Hines Polska, Warsaw, Poland, ©Szymon Polariski)

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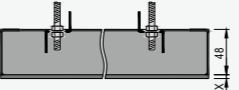



























Floating Canopy Systems  
**MESH Sonic Element MT**  
 (MESH Canopy MT)  
 Individual

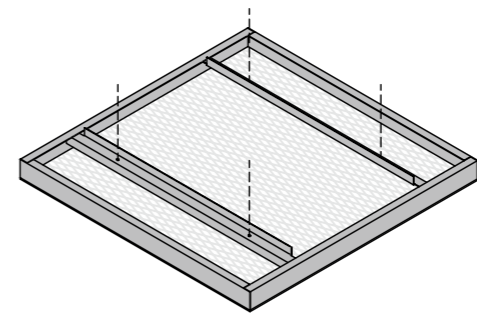


- **MESH Sonic Element MT** provides a contemporary industrial look and feel. Breathe new life into your ceiling architecture – with a creative design, impressive simplicity and high performance.
- Flat visible side, without upturn, with welded stiffening profiles on all edges.
- Canopies delivered with stiffeners on the back and suspended by threaded rods or adjustable hanging wire kits.
- Standard single item solution.
- For the grouping option, the canopy can be delivered on request with additional bolt holes on the edges.
- Additional design options available as part of our **Vario Design** range.
- Ideal for open spaces and large rooms with flexible partitioning.

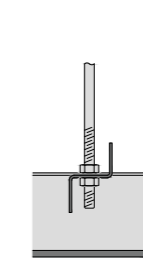


Floating Canopy Systems  
**MESH Sonic Element MT**  
 Individual

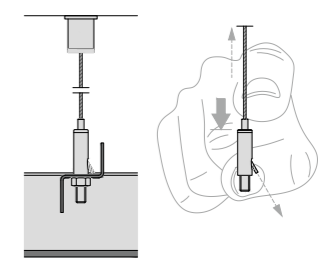
<b>Edge details</b>	 <b>MESH Sonic Element MT</b> 		X = Mesh thickness
<b>System</b>		Direct suspended (by threaded rod or wires)	Not included.
<b>Dimensions (mm)</b>		Panel length: 800 - 1200 Panel width: (RB25) 800 - 1202 (in steps of 8mm) / (RB35, RB55) 800 - 1200	
<b>Material &amp; patterns</b>		Galvanised steel RB25 = 1.0mm RB35 / RB55 = 1.5mm	
		 <b>RB25</b> R16 x 8 - 2 x 1 Open area: 50%	 <b>RB35</b> R28 x 10 - 2 x 1.5 Open area: 58%
			 <b>RB55</b> R43 x 13 - 2.5 x 1.5 Open area: 62%
<b>Colours</b>		 RAL 9010	
		<b>Other colours</b>	
		 RAL 9005	 RAL 9006
		 RAL 9007	
<b>Weight</b>		<b>RB25</b> 6.4 - 11.5 kg/m <sup>2</sup>	<b>RB35</b> 6.9 - 12.6 kg/m <sup>2</sup>
			<b>RB55</b> 6.6 - 12.0 kg/m <sup>2</sup>
<b>Fire reaction</b>		Euroclass <b>A2-s1, d0</b> as per EN 13501-1	Values applicable for RAL 9010 solutions only.
<b>Humidity resistance</b>		<b>95% RH</b>	
<b>Indoor air quality</b>		 A+	
<b>Cleanability</b>			
<b>Sustainability</b>		 EPD =14%	 Silver*
			*Value applicable for RAL 9010 solutions only.
<b>Design options</b>			
			




Threaded Rod M6



Hanging Wire Kit



[Previous page] MESH Sonic Element MT (©Knauf Ceiling Solutions)

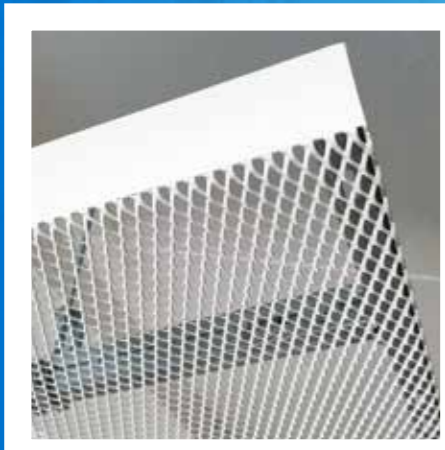
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## Floating Canopy Systems

# MESH Sky Element Hook MT

(MESH Canopy MT)  
Grouped





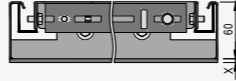




























- MESH Sky Element Hook MT offers optimum flexibility and design freedom. Breathe new life into your ceiling architecture – with a creative design, impressive simplicity and high performance.
- Flat visible side, without upturn, with welded stiffening profiles on all edges.
- Standard, end and single panels available.
- Fully configurable large size panels.
- Additional design options available as part of our **Vario Design** range.
- Ideal for open spaces and large rooms with flexible partitioning.

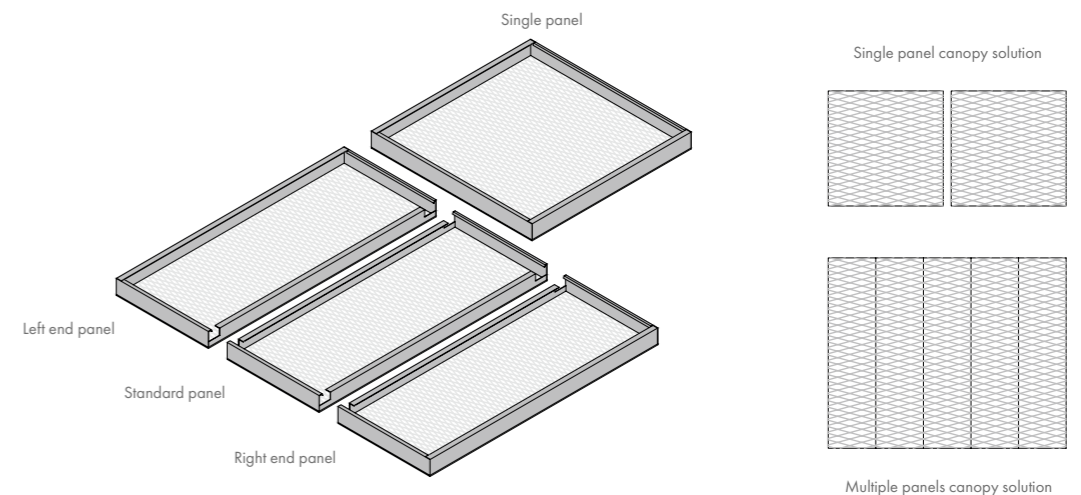


## Floating Canopy Systems


# MESH Sky Element Hook MT

Grouped

<b>Edge details</b>	 <b>MESH Sky Element Hook MT</b> 
	 X = Mesh thickness
<b>System</b>	 U-Profile (cross-connected)
<b>Dimensions (mm)</b>	 Panel length: 585 - 2485 (in steps of 25mm) Panel width: (RB25) 298 - 602 (in steps of 8mm) / (RB35, RB55) 247 - 700
<b>Material &amp; patterns</b>	 Galvanised steel RB25 = 1.0mm RB35 / RB55 = 1.5mm
	 <b>RB25</b>  <b>RB35</b>  <b>RB55</b>
	R16 x 8 - 2 x 1 Open area: 50%      R28 x 10 - 2 x 1.5 Open area: 58%      R43 x 13 - 2.5 x 1.5 Open area: 62%
<b>Colours</b>	  RAL 9010
	<b>Other colours</b>
	 RAL 9005  RAL 9006  RAL 9007
<b>Weight</b>	 <b>RB25</b> 6.8 - 14.0 kg/m <sup>2</sup> <b>RB35</b> 7.6 - 16.0 kg/m <sup>2</sup> <b>RB55</b> 7.2 - 15.5 kg/m <sup>2</sup>
<b>Fire reaction</b>	 Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <span style="float: right;"><small>*Value applicable for RAL 9010 solutions only.</small></span>
<b>Humidity resistance</b>	 <b>95% RH</b>
<b>Indoor air quality</b>	  A+
<b>Cleanability</b>	   
<b>Sustainability</b>	   Silver* <span style="float: right;"><small>*Value applicable for RAL 9010 solutions only.</small></span>
<b>Design options</b>	 Dimensions  Colours  Patterns  Cut-Outs  Megapanel



[Previous page] MESH Sky Element Hook MT (© Knauf Ceiling Solutions)

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# DEFINITION OF TECHNICAL PERFORMANCE ICONS



## SOUND ABSORPTION

A single-number rating for random incidence sound absorption coefficients as calculated by reference to EN ISO 11654 ( $\alpha_w$ ) or to ASTM C 423-01 (NRC).



## SOUND ABSORPTION CLASS

A classification for sound absorption (A – E) based upon the sound absorption  $\alpha_w$  value.



## SOUND REDUCTION

A single-number rating for airborne sound transmission (single pass) as calculated by reference to EN ISO 717-1.



## SOUND ATTENUATION

A single-number rating for flanking sound transmission between adjacent rooms, as calculated by reference to EN ISO 717-1.



## FIRE REACTION

Reaction to fire classification in accordance with EN 13501-1 expressed as Euroclass (A1 – F).



## HUMIDITY RESISTANCE

Maximum relative humidity conditions for installation and lifetime of ceiling.



## LIGHT REFLECTANCE

Light reflection is the proportion of incident light that is reflected back off the product.



## INDOOR AIR QUALITY

Knauf Ceiling Solutions are designed to limit the number of airborne particles in a clean room environment are tested against ISO 14644-1 and classified with an ISO class.



## RECYCLED CONTENT

The recycled content of the product, as calculated in accordance with ISO 14021.



## CRADLE TO CRADLE CERTIFIED®

Products with this icon are Cradle to Cradle Certified®, providing a transparent mechanism to compare the sustainability performance of products, showing that they are designed for recycling and can help protect and sustain our environment for future generations by keeping resources in the economy for longer.



## ENVIRONMENTAL PRODUCT DECLARATION (EPD)

are independently verified and registered documents that communicate transparent and comparable information about the life-cycle environmental impact of products. Knauf Ceiling Solutions EPDs have been third party certified by IBU (Institut Bauen und Umwelt e.V. (IBU) as conforming to the requirements of ISO 14025.



## VOC

The VOC emission performance in accordance with the French labelling requirements.



## FORMALDEHYDE (E1)

Formaldehyde emission level (E1 = lowest test result possible).



## ISO 9001 & ISO 14001

This icon demonstrates Knauf Ceiling Solutions ability to consistently provide products and services that meet customer and regulatory quality management system requirements (ISO 9001) and environmental management system requirements (ISO 14001).



## EDGE DETAILS

Indicates the different edge details available for the product of reference.



## DIMENSIONS

Indicates the sizes available for the product of reference.



## SYSTEMS

Indicates the suspension systems compatible with the product of reference.



## COLOURS

Custom colours available for products with this icon.



## WEIGHT

Weight per unit area of the product (kg/m<sup>2</sup>).



## SCRATCH RESISTANCE

Products with this icon offer a superior level of surface scratch resistance.



## PRODUCT HANDLING & DURABILITY

Solutions with enhanced durability for improved handling and resistance damage.



## CLEAN ROOM

Products with this icon are suitable for clean room applications.



## BIOGUARD

BioGuard antimicrobial finish available as a custom option for products with this icon.



## TRIOGUARD™

TrioGuard dirt-resistant coating available for products with this icon.



## EXTERIOR SOLUTIONS

Exterior ceiling tiles available for products with this icon.

## CLEANING AND DISINFECTION

The frequency and cleaning method of a ceiling varies from one application to another. All products can at least be cleaned with a dry cloth or vacuum cleaner.



For standard cleaning of dust, loose dirt or deposit, a soft brush, a clean, dry, soft white cloth, a normal vacuum cleaner with a soft brush or focus compressed air can be used.



For more intensive cleaning, the surfaces can be damp cleaned. This should be carried out with a wrung-out soft cloth or sponge. After cleaning, the surfaces of the tile should be dried with a soft cloth.



Wet cleaning should be carried out the lukewarm water (up to 40°C), using a sponge and mild cleaning agent (with a pH value between 7 and 9), and using medium pressure. After cleaning, the surface should be dried with a soft cloth.



Can be cleaned using focus compressed air. The apparatus used should be a cleaner that generates steam under pressure (8 bar and 175°C).



## ACOUSTIC INFILLS

Custom acoustic infills available for products with this icon.



## CUT-OUTS

Custom factory cut-outs for service integration available for products with this icon.



## SUITABLE FOR CHILLED CEILINGS

Products compatible with chilled ceilings unit integration indicated with this icon.



## PERFORATIONS / PATTERNS

Custom perforations/patterns available for products with this icon.



## SHAPES

Custom shapes available for products with this icon.



## MEGAPANEL

Megapanel available for products with this icon.



## SWING-DOWN FUNCTION

Swing-down functionality available for systems with this icon.



## SECURE FUNCTION

Secure solutions using specifically designed components and assemblies available for systems with this icon.



## SEISMIC

Seismic resistance using specifically designed components and assemblies available for systems with this icon.



## IMPACT RESISTANCE

Impact solutions ceiling tiles available for products with this icon.

## CE MARKING

In the EU, the Construction Products Regulations (305/2011/EU) defines essential requirements for products (and projects) such that they are safe and fit for their intended use. Harmonized Product Standards respond to these essential requirements and set out what tests must be conducted and how the performance must be communicated. For suspended ceilings the applicable product standard is EN 13964 Suspended Ceilings – Requirements & Test Methods.

The essential requirements identified for suspended ceiling membranes (tiles & baffles) include:

- Reaction to Fire (mandatory)
- Formaldehyde Emissions
- Sound Absorption
- Flexural Tensile Strength / Durability

It is mandatory to CE Mark products within the scope of EN 13964 and provide a Declaration of Performance in order to place the product on the market.

All Knauf Ceiling Solutions Declarations of Performance can be found on Knauf Ceiling Solutions website.

## WEIGHTED SOUND ABSORPTION COEFFICIENT, $\alpha_w$

A single-number rating for random incidence sound absorption coefficients calculated by reference to EN ISO 11654. With this method measured values obtained in accordance with EN ISO 354, are converted into octave bands at 250, 500, 1000, 2000 and 4000 Hz and are plotted onto a graph. A standard reference curve is then shifted towards the measured values in steps of 0.05 until a "best fit" is obtained. The derived value of  $\alpha_w$  will vary between 0.00 and 1.00 but is only expressed in multiples of 0.05, e.g.  $\alpha_w = 0.65$ .

## SHAPE INDICATOR

With reference to EN ISO 11654, the calculated value of  $\alpha_w$  may be qualified by one or more letters (in brackets) to indicate if the product has excess sound absorption at low (L), medium (M) or high (H) frequencies.

## SOUND ABSORPTION CLASS

With reference to EN ISO 11654, the calculated value of  $\alpha_w$  may additionally be allocated into one of six descriptive classes in accordance with the following table:

Sound Absorption Class	$\alpha_w$
A	0.90; 0.95; 1.00
B	0.80; 0.85
C	0.60; 0.65; 0.70; 0.75
D	0.30; 0.35; 0.40; 0.45; 0.50; 0.55
E	0.15; 0.20; 0.25
Not Classified	0.00; 0.05; 0.10

## WEIGHTED SUSPENDED CEILING NORMALISED FLANKING LEVEL DIFFERENCE, $D_{ntw}$

A single-number rating of the laboratory measurement of room-to-room (horizontal) airborne flanking sound transmission of a suspended ceiling above adjacent room sharing a common ceiling plenum. It is determined in accordance with EN ISO 717-1 from measurements made in accordance with EN ISO 10848-2.

## WEIGHTED SOUND REDUCTION INDEX, $R_w$

A single-number rating of the laboratory measurement of (vertical) airborne sound reduction of a suspended ceiling. It is determined by reference to EN ISO 717-1 from measurements of sound reduction index made in accordance with EN ISO 140-3.

## NOISE REDUCTION COEFFICIENT, NRC

A single-number descriptor of random incidence sound absorption coefficients. Defined in ASTM C423-01 as the arithmetical average, to the nearest multiple of 0.05, of the measured sound absorption coefficients for the four one-third octave band centre frequencies of 250, 500, 1,000 and 2,000 Hz.

## SOUND REDUCTION

A term used in relation to the vertical transmission of sound through a suspended ceiling.

## SOUND ATTENUATION

A term used in relation to the horizontal transmission of sound through a suspended ceiling above adjacent rooms sharing a common ceiling plenum.

## EQUIVALENT ABSORPTION AREA (EAA)

The equivalent absorption is a measure of the total sound absorption by discrete objects (canopies, screens, furniture etc) when installed in an architectural space. Because these types of absorbers have more than one surface and may be irregular in form, it is not meaningful to assign sound absorption coefficients to them. Hence the Equivalent Absorption Area per unit (measured in Sabines) is preferred to characterise the absorption provided by an individual 'space absorber'.

Due to reproduction processes colours shown in this catalogue may differ from the actual product colour. Product selection should always be made from Knauf Ceiling Solutions samples. All details and technical information stated in this brochure or other publicity material referring to Knauf Ceiling Solutions ceiling systems are based on test reports obtained under laboratory conditions. It is the responsibility of the customer to ensure that this data is suitable for the proposed application. All information provided is based on current technical data. Further relevant test reports, assessments and installation guidelines are available. All system details conform with current standards and are based on the use of Knauf Ceiling Solutions products and system components. Knauf Ceiling Solutions accepts no liability or responsibility for use of third party components, or for any variations to conditions stipulated in test data. Mixing of production batches is not recommended. All technical data is subject to change without prior notice and is governed by Knauf Ceiling Solutions Terms and Conditions of Sales. This catalogue supersedes all previous editions. Errors and omissions excepted. Printing errors excepted.



YOUR CEILING  
OUR SOLUTIONS

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Managing Director:  
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