METAL LEAFLET CLIP-IN

F-CLIP ACCESS SYSTEM	02
Q-CLIP SYSTEM	09
R-CLIP SYSTEM	16
S-CLIP F SYSTEM	23
T-CLIP F SYSTEM	30
METAL PREMIUM B15	41





Inspiring Great Spaces™



BENEFITS APPLICATION AREA ■ Easy, quick access to ceiling void due ■ Corridors where the panels simply ■ Free-span solution ■ Rectangular panel, adapted to corridor to the swing-down Access function span between walls. ■ Downwardly demountable with the use or circulation area width of an extraction tool for access to the ■ Various perimeter trim solutions for a clean aesthetic finish ceiling void ■ Meets visual and individual project requirements PROJECT: Laboratorios EPAL (SP) ::::::: ARCHITECT: Gonçalo Byme, Arquitectos Lda

F-CLIP ACCESS SYSTEM CORRIDOR CEILINGS

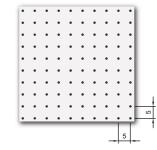
SPECIFICATION

SPECII ICATION	
System	Armstrong ceiling system F-Clip Access, Clip-In solution with concealed grid, suspension height min. 90mm Up to 90 mm shadow gap between wall and panel
Panel material	galvanised steel sheet panel width up to 400 mm 0.6 mm panel width from 401 mm 0.7 mm (aluminium or further materials on request)
Coating	RAL 9010 pure white post-coated powder painted visible surface, other RAL or NCS colours on request
Execution*	rectangular panel square edged long sides CA / DA (40 mm) short sides E6 / F6 (38 mm)
Gap solution	0 mm gap on long side, without gasket
Acoustic inlay	Black non-woven acoustic fleece as standard. Other options available on request.
Configurable dimensions	panel length (A) 600 - 2500 mm panel width (B) 275 - 600 mm
Grid system	half clamping rail DP12 fixed by wall bracket to the wall
Service integration	standard round or rectangular cut-outs plus customised options on request

^{*} For further information about the edge detail execution of metal tiles, please see the Metal Edge Detail Execution datasheet

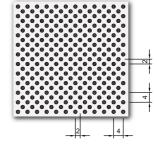


STANDARD PERFORATION PATTERNS



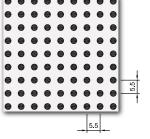
Extra Microperforation Rg 0701 Hole diameter: 0.7 mm

Hole diameter: 0.7 n Open area: 1.5 %



Microperforation Rd 1522

Hole diameter: 1.5 mm Open area: 22%



Standard Perforation Rg 2516 Hole diameter: 2.5 mm

Open area: 16%

ACOUSTIC PERFORMANCE

Metal ceiling systems have been tested for their acoustic performance in terms of sound absorption, sound attenuation and sound reduction. These performance values will depend upon the perforation and the acoustic infill. Please contact us for more information on the available factory fitted acoustic options.

THERMAL CONDUCTIVITY

 (λ) W/mK 50.0 : Steel

0.04 : Acoustic fleece

HUMIDITY EXPOSURE

Up to 95% RH (for short term exposure).

SERVICES INTEGRATION

Metal panels can be supplied with factory produced cut outs and apertures for the integration of building services equipment.

CLEANING

Dust should be removed from the painted surface by wiping with a clean soft cloth. More stubborn marks should be removed with a mild household detergent in warm water. Excessive use of water should be avoided. The use of abrasive cleaners of the painted surface is not recommended.

COLOUR

Standard colours

RAL 9010 20% gloss Global White 12% gloss RAL 9006 30% gloss RAL 9007 30% gloss



Special colours

Other RAL and NCS colours available on request

QUALITY STANDARD

Armstrong is a certified EN ISO 9001:2008 Quality Assumed Manufacturer. All Armstrong ceiling and grid systems are manufactured to the relevant tolerances and quality standards appropriate to material. Where differences exist between this and any expressed or implied architectural specificaitons or requirements then Armstrong's manufacturing standards will prevail unless stated otherwise.

ENVIRONMENTAL

Our metal panels have an average of up to 30% recycling content. Our European manufacturing plants are certified to:

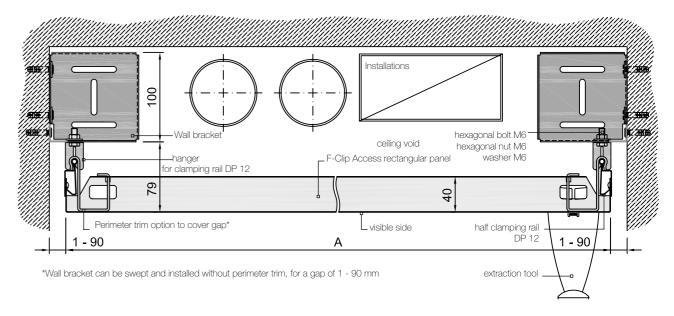
ISO 14001:2004 + Cor. 1:2009

Armstrong is a member of TAIM (Technical Association of Industrial Metal Ceilings).

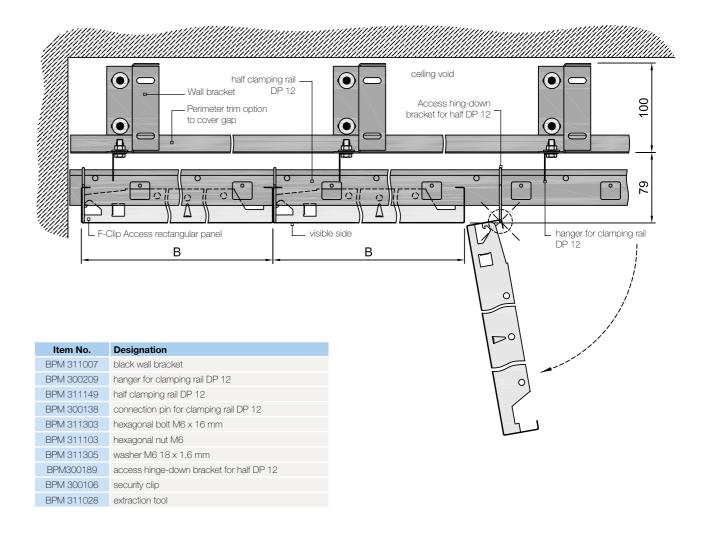
	Sustai	nability	Acoustics					Safe & Healthy						
	* ***							The state of the s			+			
	Recycled content (%)	Light reflectance (%)	$\begin{array}{c} \alpha_{\text{w}} \\ \text{up to} \end{array}$	Sound absorption class	NRC up to	Dncw / Dnfw (dB) up to	Rw (dB) up to	Fire reaction	Humidity Resistance (%) up to	Cleanability	Bioguard paint option	Scratch resistance		
Futus Misses enforcition De 0701 (0)	to 00	80	0.55(1)	D	0.65	21	10	A0 a0 d0	95	wipeable	V			
Extra Microperforation Rg 0701 (2)	up to 30	00	0.55(L)	D	0.00	21	10	A2-s2, d0	90	wipeable moist cloth (3)				
Microperforation Rd 1522 (2)	up to 30	65	0.70	С	0.70	16	6	A2-s2, d0	95	wipeable moist cloth (3)		~		
Standard Perforation Rg 2516 (2)	up to 30	70	0.75(L)	С	0.80	18	8	A2-s2, d0	95	wipeable moist cloth (3)		~		
Plain / Unperforated (1)	up to 30	85	0.10(L)	Not Classified	0.10	44	19	A1	95	scrubbable	~	~		
Premium OP19	up to 30	depends on perforation	1.00	А	0.90	31	15	A2-s2, d0	95	wipeable moist cloth		V		

(1) RAL 9010 colour, without acoustic inlay. (2) RAL 9010 colour, with black acoustic fleece glued on rear. (3) Wipeable moist cloth for preforated tiles with fleece. Scrubbable for plain tiles or perforated tiles without fleece.

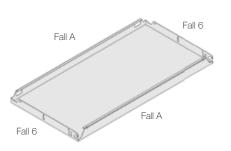
CROSS-SECTION



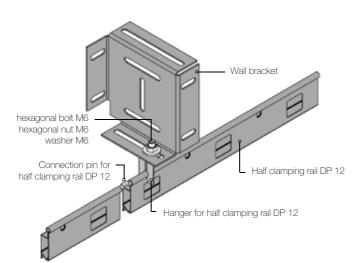
LONGITUDINAL-SECTION



Detail A F-Clip Access rectangular panel

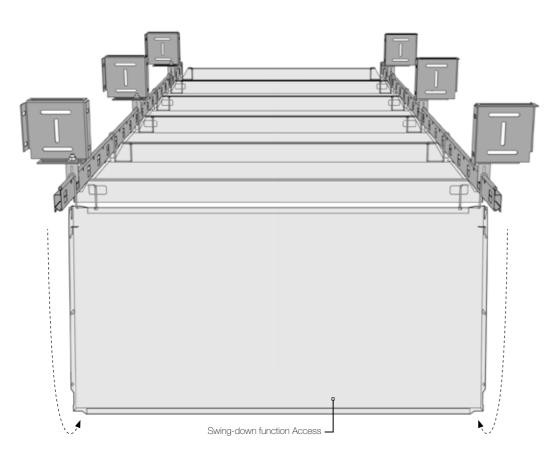


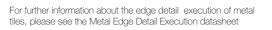
Detail B grid system



Detail C security clip











BENEFITS ■ Cost effective **APPLICATION AREA** ■ Solution with optional swing-down ■ Used in a variety of ceiling areas: Concealed grid system for a monolithic ceiling surface "Window" function from small service rooms to large Downwardly demountable with the commercial office buildings and major use of an extraction tool for access transportation terminals. to the ceiling void. PROJECT: GGZ Oost Brabant (NL) ::::::: ARCHITECT: MAS Architectuur

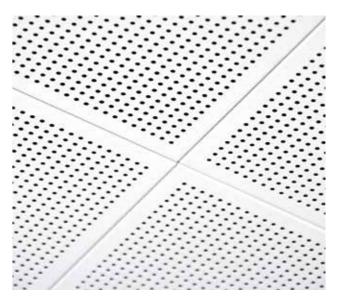
Q-CLIP SYSTEM SQUARE TILES

SPECIFICATION

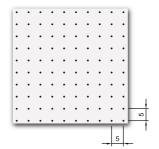
System	Armstrong ceiling system Q-Clip,						
Oystorri	Clip-In solution with concealed grid,						
	with optional swing-down "Window" function,						
	suspension height min. 100 mm						
Tile material	galvanised steel sheet 0.5 mm						
	(aluminium or further materials on request)						
Coating	RAL 9010 pure white post-coated powder						
· ·	painted visible surface, other RAL or NCS						
	colours on request						
Execution*	Q-Clip: square tile square edged						
	Q-Clip F: square tile bevel edged 3 mm						
Gap solution	0 mm gap, without gasket						
Acoustic inlay	Black non-woven acoustic fleece						
	as standard. Other options available on						
	request.						
Standard modules	Q-Clip:						
	600 x 600 mm						
	625 x 625 mm						
	Q-Clip F:						
	500 x 500 mm						
	600 x 600 mm						
	600 x 300 mm (no "Window" function)						
	625 x 625 mm						
	625 x 312.5 mm (no "Window" function)						
Grid system	GemaGrid®® System in combination with						
	clamping rail DP 12, security clip optional						
	available, further suspension methods on						
	request						
* For further information at	out the edge detail execution of metal tiles inlease see						

* For further information about the edge det	ail execution of metal tiles, please see
the Metal Edge Detail Execution datasheet	

Perimeter solution	Range of standards trims in steel and aluminium plus custom bulkheads available
Service integration	standard round or rectangular cut-outs plus customized options on request.
Special capabilities	- secured exterior ceiling solution - seismic ceiling solution - clean room ceiling solution - can be combined with other Armstrong products

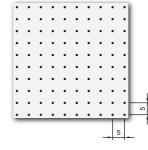


STANDARD PERFORATION PATTERNS



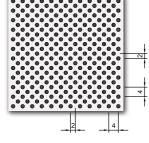
Ultra Microperforation Rg 0501

Hole diameter: 0.5 mm Open area: 0.64 %



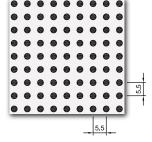
Extra Microperforation Rg 0701

Hole diameter: 0.7 mm Open area: 1.5 %



Microperforation Rd 1522 Hole diameter: 1.5 mm

Open area: 22%



Standard Perforation Rg 2516 Hole diameter: 2.5 mm

Open area: 16%

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ACOUSTIC PERFORMANCE

Metal ceiling systems have been tested for their acoustic performance of sound absorption. All perforated products can be supplied with a variety of factory fitted acoustic infill options. Please contact us for more information.

THERMAL CONDUCTIVITY

(λ) W/mK 50.0 : Steel

0.04 : Acoustic fleece

HUMIDITY EXPOSURE

Up to 95% RH (for short term exposure).

SERVICES INTEGRATION

Metal panels can be supplied with factory produced cut outs and apertures for the integration of building services equipment.

CLEANING

Dust should be removed from the painted surface by wiping with a clean soft cloth. More stubborn marks should be removed with a mild household detergent in warm water. Excessive use of water should be avoided. The use of abrasive cleaners of the painted surface is not recommended.

COLOUR

Standard colours

 RAL 9010
 20% gloss

 Global White
 12% gloss

 RAL 9006
 30% gloss

 RAL 9007
 30% gloss



Special colours

Other RAL and NCS colours available on request

QUALITY STANDARD

Armstrong is a certified **EN ISO 9001:2008** Quality Assumed Manufacturer. All Armstrong ceiling and grid systems are manufactured to the relevant tolerances and quality standards appropriate to material. Where differences exist between this and any expressed or implied architectural specificaitons or requirements then Armstrong's manufacturing standards will prevail unless stated otherwise.

ENVIRONMENTAL

Our metal panels have an average of up to 30% recycling content. Our European manufacturing plants are certified to:

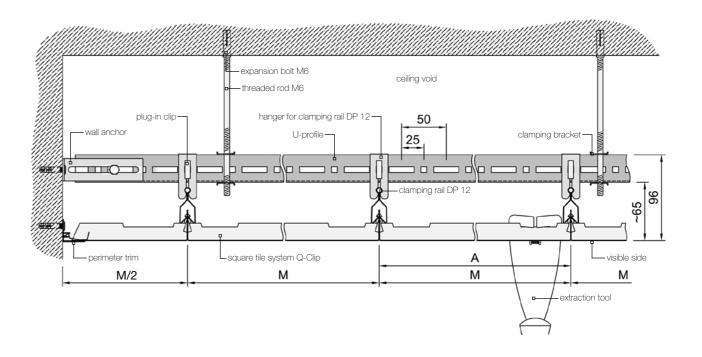
ISO 14001:2004 + Cor. 1:2009

Armstrong is a member of TAIM (Technical Association of Industrial Metal Ceilings).

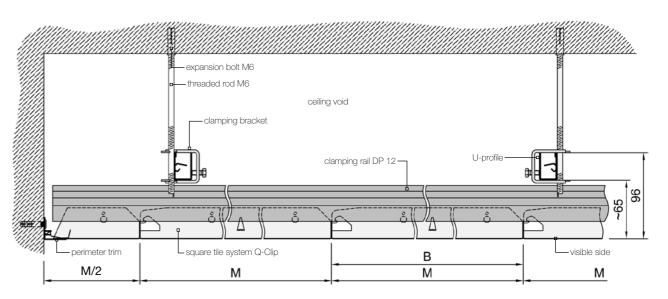
	Sustai	nability	Acoustics				Safe & Healthy						
	ISO 14021							The state of the s			+		
	Recycled content (%)	Light reflectance (%)	$\begin{array}{c} \alpha_w \\ \text{up to} \end{array}$	Sound absorption class	NRC up to	Dncw / Dnfw (dB) up to	Rw (dB) up to	Fire reaction	Humidity Resistance (%) up to	Cleanability	Bioguard paint option	Scratch resistance	
Ultra Microperforation Rg 0501 (1)	up to 30	83	0.45(L)	D	0.55	18	8	A1	95	scrubbable	·	V	
Extra Microperforation Rg 0701 (2)	up to 30	80	0.55(L)	D	0.65	21	10	A2-s2, d0	95	wipeable moist cloth (3)	~	~	
Microperforation Rd 1522 (2)	up to 30	65	0.70	С	0.70	16	6	A2-s2, d0	95	wipeable moist cloth (3)		~	
Standard Perforation Rg 2516 (2)	up to 30	70	0.75(L)	С	0.80	18	8	A2-s2, d0	95	wipeable moist cloth (3)		~	
Plain / Unperforated (1)	up to 30	85	0.10(L)	Not Classified	0.10	44	19	A1	95	scrubbable, high pressure water cleaning (4)	~	~	

⁽¹⁾ RAL 9010 colour, without acoustic inlay, (2) RAL 9010 colour, with black acoustic fleece glued on rear. (3) Wipeable moist cloth for preforated tiles with fleece. Scrubbable for plain tiles or perforated tiles without fleece. (4) Only for plain Clip-In systems with silicone sealed joints (reduced water pressure to the minimum).

CROSS-SECTION Q-CLIP



LONGITUDINAL-SECTION Q-CLIP



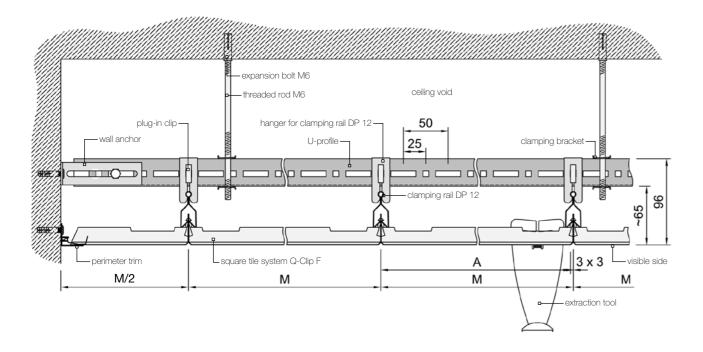
 $\mathsf{M} = \mathsf{module} \; \mathsf{size} \, / \, \mathsf{A} = \mathsf{tile} \; \mathsf{length} \, / \, \mathsf{B} = \mathsf{tile} \; \mathsf{width}$

Item No.	Designation
BPM 300100	U-profile
BPM 300119	connector for U-profile
BPM 300120	plug-in clip
BPM 300140	wall anchor
BPM 300121	clamping bracket
BPM 311111	expansion bolt M6 x 30 mm
BPM 311099	threaded rod M6 x 1'000 mm
BPM 311022	clamping rail DP 12
BPM 300138	connection pin for clamping rail DP 12

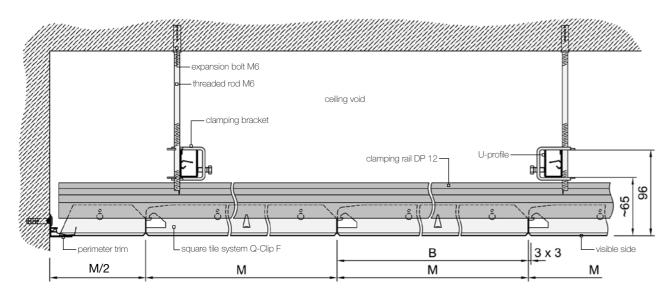
Item No.	Designation
BPM 300105	hanger for clamping rail DP 12
BPM 311303	hexagonal bolt M6 x 16 mm
BPM 311103	hexagonal nut M6
BPM 311305	washer M6 18 x 1.6 mm
BPM 300106	security clip
BPM 311028	extraction tool
BPM 311027	hinge-down bracket for Window function
BPM 300157	security clamp for Window function

14 ::::

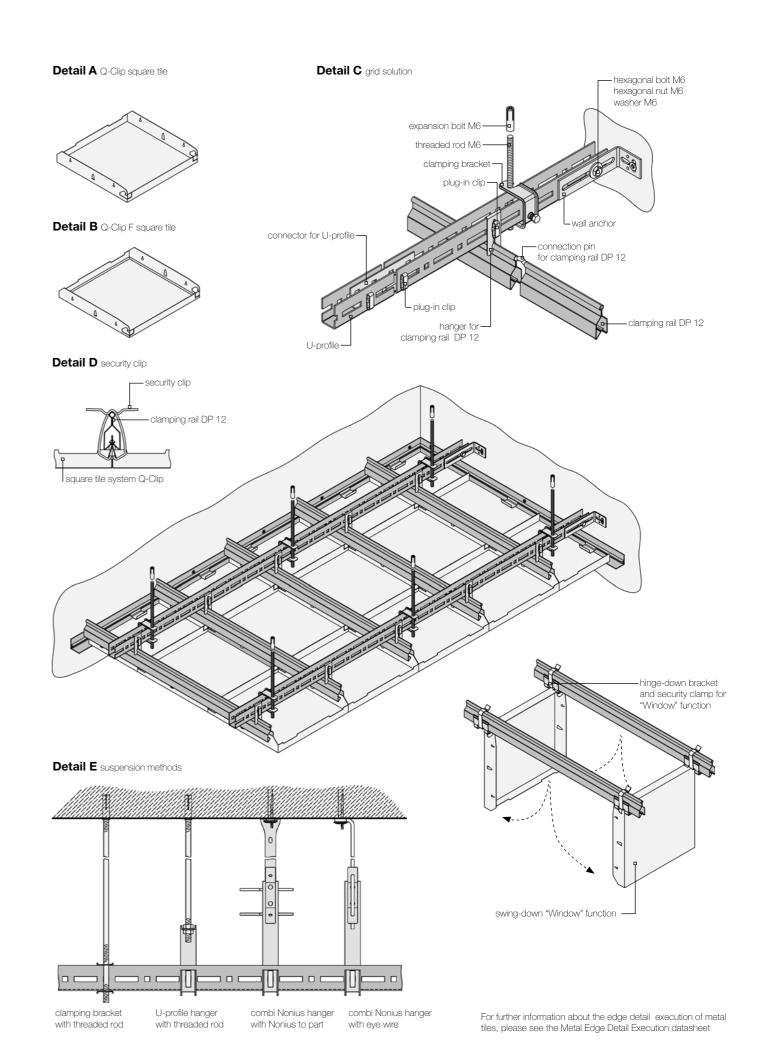
CROSS-SECTION Q-CLIP F



LONGITUDINAL-SECTION Q-CLIP F



M = module size / A = tile length / B = tile width





CEILING SOLUTIONS

BENEFITS APPLICATION AREA ■ Versatile system and simple design ■ Easy access to the ceiling void ■ Suitable for large open plan / ■ Concealed grid for a monolithic effect ■ Maintenance friendly system circulation areas. ■ Excellent acoustic performance ■ Downwardly demountable with the use of an extraction tool for access to the ■ Ease of installation (alignment) and fully ceiling void demountable PROJECT: Strabag company (PL) ::::::: ARCHITECT: Strabag sp.z o.o.

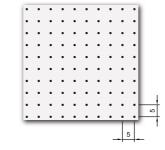
R-CLIP SYSTEM RECTANGULAR PANELS / PLANKS

SPECIFICATION

System	Armstrong ceiling system R-Clip, Clip-In solution with concealed grid, with optional swing-down "Window" function, suspension height min. 100 mm
Panel material	galvanised steel sheet R-Clip: panel width up to 400 mm 0.6 mm panel width from 401 mm 0.7 mm R-Clip F: panel length 1200 mm 0.5 mm panel length 1800 mm 0.6 mm (aluminium or further materials on request)
Coating	RAL 9010 pure white post-coated powder painted visible surface, other RAL or NCS colours on request.
Execution*	R-Clip rectangular panel square edged long sides CA / DA (40 mm) short sides E6 / F6 (38 mm) R-Clip F rectangular panel bevel edged 3 mm
	long sides CC / DC (35 mm) short sides E6 / F6 (38 mm)
Gap solution	0 mm gap, without gasket
Acoustic inlay	Black non-woven acoustic fleece as standard. Other options available on request.

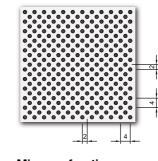
Standard modules	R-Clip 1500 x 312.5 mm 1500 x 400 mm 2000 x 312.5 mm 2000 x 400 mm 2500 x 312.5 mm 2500 x 312.5 mm R-Clip F: 1200 x 300 mm 1200 x 600 mm 1800 x 400 mm
Configurable dimensions	R-Clip: panel length (A) 600 - 2500 mm panel width (B) 275 - 600 mm
Grid system	GemaGrid®® system in combination with clamping rail DP 12, security clip optional available, further suspension methods on request.
Perimeter solution	Range of standards trims in steel and aluminium plus custom bulkheads available.
Service integration	standard round or rectangular cut-outs plus customised options on request.
Special capabilities	 secured exterior ceiling solution can be combined with other Armstrong products clean room ceiling solution (R-Clip F)

STANDARD PERFORATION PATTERNS

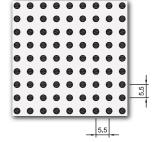


Extra Microperforation Rg 0701

Hole diameter: 0.7 mm Open area: 1.5 %



Microperforation Rd 1522 Hole diameter: 1.5 mm Open area: 22%



Standard Perforation Rg 2516 Hole diameter: 2.5 mm Open area: 16%

^{*} For further information about the edge detail execution of metal tiles, please see the Metal Edge Detail Execution datasheet

ACOUSTIC PERFORMANCE

Metal ceiling systems have been tested for their acoustic performance in terms of sound absorption, sound attenuation and sound reduction. These performance values will depend upon the perforation and the acoustic infill. Please contact us for more information on the available factory fitted acoustic options.

THERMAL CONDUCTIVITY

 (λ) W/mK 50.0 : Steel

0.04 : Acoustic fleece

HUMIDITY EXPOSURE

Up to 95% RH (for short term exposure).

SERVICES INTEGRATION

Metal panels can be supplied with factory produced cut outs and apertures for the integration of building services equipment.

CLEANING

Dust should be removed from the painted surface by wiping with a clean soft cloth. More stubborn marks should be removed with a mild household detergent in warm water. Excessive use of water should be avoided. The use of abrasive cleaners of the painted surface is not recommended.

COLOUR

Standard colours

RAL 9010 20% gloss Global White 12% gloss RAL 9006 30% gloss RAL 9007 30% gloss



Special colours

Other RAL and NCS colours available on request

QUALITY STANDARD

Armstrong is a certified EN ISO 9001:2008 Quality Assured Manufacturer. All Armstrong ceiling and grid systems are manufactured to the relevant tolerances and quality standards appropriate to material. Where differences exist between this and any expressed or implied architectural specifications of requirements then Armstrong's manufacturing standards will prevail unless stated otherwise.

ENVIRONMENTAL

Our metal panels have an average of up to 30% recycling content. Our European manufacturing plants are certified to:

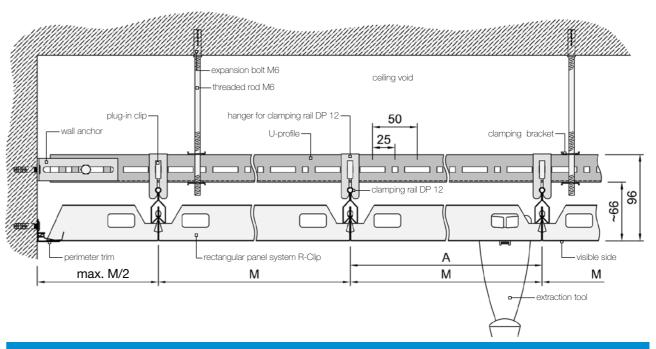
ISO 14001:2004 + Cor. 1:2009

Armstrong is a member of TAIM (Technical Association of Industrial Metal Ceilings).

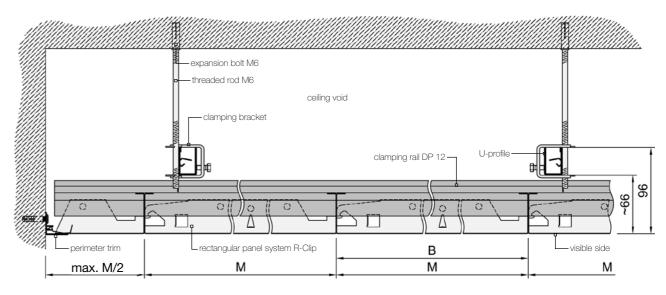
	Sustai	nability	Acoustics					Safe & Healthy					
	% ISO 14021	///						The state of the s	4,4,				
	Recycled content (%)	Light reflectance (%)	$lpha_w$ up to	Sound absorption class	NRC up to	Dncw / Dnfw (dB) up to	Rw (dB) up to	Fire reaction	Humidity Resistance (%) up to	Cleanability	Bioguard paint option	Air quality	Scratch resistance
Extra Microperforation Rg 0701 (2)	up to 30	80	0.55(L)	D	0.65	21	10	A2-s2, d0	95	wipeable moist cloth (3)	~		~
Microperforation Rd 1522 (2)	up to 30	65	0.70	С	0.70	16	6	A2-s2, d0	95	wipeable moist cloth (3)			V
Standard Perforation Rg 2516 (2)	up to 30	70	0.75(L)	С	0.80	18	8	A2-s2, d0	95	wipeable moist cloth (3)			v
Plain / Unperforated (1)	up to 30	85	0.10(L)	Not Classified	0.10	44	19	A1	95	scrubbable, high pressure water cleaning (4)	v	ISO 5 (5)	V
Premium B15 (5)	up to 30	depends on perforation	0.65	С	0.60	41	20	A2-s1, d0	95	wipeable moist cloth			v
Premium OP19 (5)	up to 30	depends on perforation	1.00	А	0.90	31	15	A2-s2, d0	95	wipeable moist cloth			~

(1) RAL 9010 colour, without acoustic inlay. (2) RAL 9010 colour, with black acoustic fleece glued on rear. (3) Wipeable moist cloth for preforated tiles with fleece. Scrubbable for plain tiles or perforated tiles without fleece. (4) Only for plain Clip-In systems with silicone sealed joints (reduced water pressure to the minimum). (5) Available only for R-Clip F.

CROSS-SECTION R-CLIP



LONGITUDINAL-SECTION R-CLIP



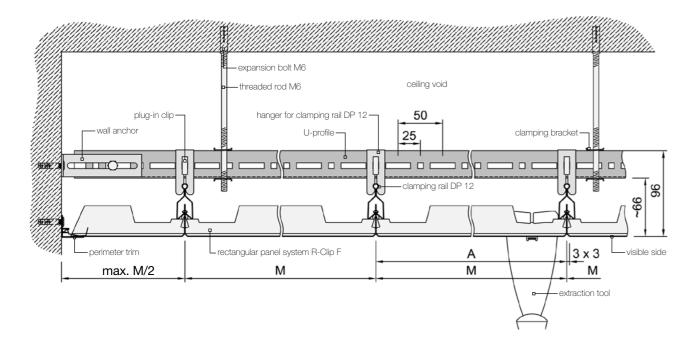
M = module size / A = panel length / B = panel width

Item No.	Designation
BPM 300100	U-profile
BPM 300119	connector for U-profile
BPM 300120	plug-in clip
BPM 300140	wall anchor
BPM 300121	clamping bracket
BPM 311111	expansion bolt M6 x 30 mm
BPM 311099	threaded rod M6 x 1'000 mm
BPM 311022	clamping rail DP 12
BPM 300138	connection pin for clamping rail DP 12

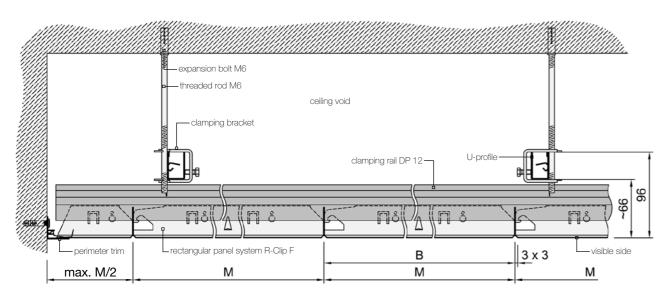
Designation
hanger for clamping rail DP 12
hexagonal bolt M6 x 16 mm
hexagonal nut M6
washer M6 18 x 1.6 mm
security clip
extraction tool
hinge-down bracket for Window function
security clamp for Window function

21 ::::

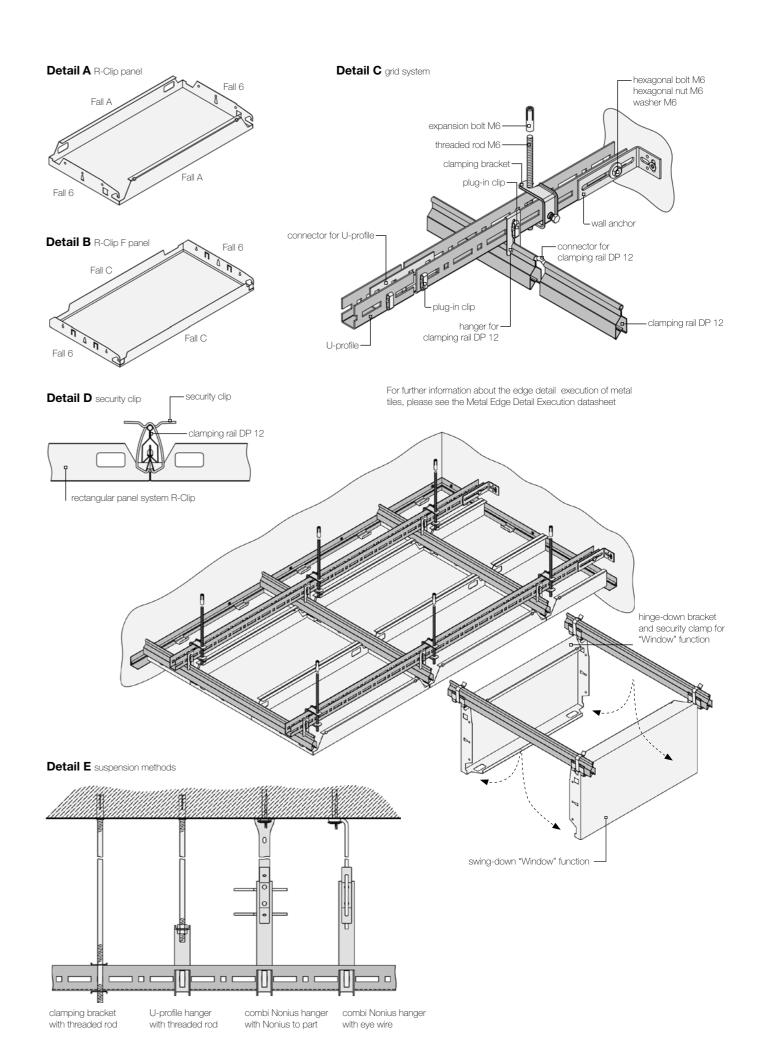
CROSS-SECTION R-CLIP F



LONGITUDINAL-SECTION R-CLIP F



M = module size / A = panel length / B = panel width





Inspiring Great Spaces™



BENEFITS **APPLICATION AREA** Concealed grid system for a ■ Cost effective ■ Used in a variety of ceiling areas: monolithic ceiling surface ■ Excellent acoustic performance from small service rooms to large ■ Downwardly demountable with the ■ With integrated swing-down function commercial office buildings and major use of an extraction tool for access transportation terminals. to the ceiling void. PROJECT: 10 Woodcock Street, Birmingham County Council (UK) :::::::: ARCHITECT: Associated Architects

S-CLIP F SYSTEM SQUARE & RECTANGULAR TILES

SPECIFICATION

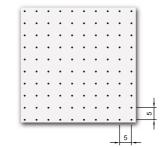
System	Armstrong ceiling system S-Clip F, Clip-In solution with concealed grid, with included swing-down function, suspension height min. 95 mm
Tile material	galvanised steel sheet 0.5 mm (aluminium or further materials on request)
Coating	RAL 9010 pure white post-coated powder painted visible surface, other RAL or NCS colours on request
Execution*	Square tile bevel edged 3 mm with standard notching
Gap solution	0 mm gap, without gasket
Acoustic inlay	Black non-woven acoustic fleece as standard. Other options available on request.
Standard modules	600 x 600 mm 625 x 625 mm 625 x 312.5 mm 300 x 900 mm 300 x 1200 mm 300 x 1500 mm
Grid system	GemaGrid®® System in combination with clamping rail DP 12, further suspension methods on request

* For further information about the edge detail	execution of metal tiles, please see
he Metal Edge Detail Execution datasheet	

Perimeter solution	Range of standards trims in steel and aluminium plus custom bulkheads available.
Service integration	standard round or rectangular cut-outs plus customized options on request.

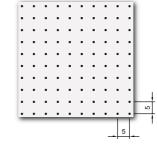


STANDARD PERFORATION PATTERNS



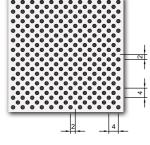
Ultra Microperforation Rg 0501*

Hole diameter: 0.5 mm Open area: 0.64 %



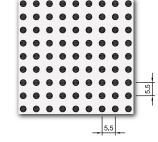
Extra Microperforation Rg 0701

Hole diameter: 0.7 mm Open area: 1.5 %



Microperforation Rd 1522

Hole diameter: 1.5 mm Open area: 22%



Standard Perforation Rg 2516

Hole diameter: 2.5 mm Open area: 16%

^{*}Only available for square tiles.

ACOUSTIC PERFORMANCE

Metal ceiling systems have been tested for their acoustic performance in terms of sound absorption, sound attenuation and sound reduction. These performance values will depend upon the perforation and the acoustic infill. Please contact us for more information on the available factory fitted acoustic options.

THERMAL CONDUCTIVITY

 (λ) W/mK 50.0 : Steel

0.04 : Acoustic fleece

HUMIDITY EXPOSURE

Up to 95% RH (for short term exposure).

SERVICES INTEGRATION

Metal panels can be supplied with factory produced cut outs and apertures for the integration of building services equipment.

CLEANING

Dust should be removed from the painted surface by wiping with a clean soft cloth. More stubborn marks should be removed with a mild household detergent in warm water. Excessive use of water should be avoided. The use of abrasive cleaners of the painted surface is not recommended.

COLOUR

Standard colours

RAL 9010 20% gloss Global White 12% gloss RAL 9006 30% gloss RAL 9007 30% gloss



Special colours

Other RAL and NCS colours available on request

QUALITY STANDARD

Armstrong is a certified EN ISO 9001:2008 Quality Assured Manufacturer. All Armstrong ceiling and grid systems are manufactured to the relevant tolerances and quality standards appropriate to material. Where differences exist between this and any expressed or implied architectural specifications of requirements then Armstrong's manufacturing standards will prevail unless stated otherwise.

ENVIRONMENTAL

Our metal panels have an average of up to 30% recycling content. Our European manufacturing plants are certified to:

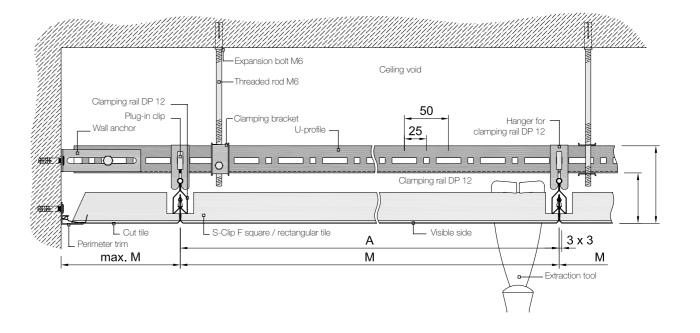
ISO 14001:2004 + Cor. 1:2009

Armstrong is a member of TAIM (Technical Association of Industrial Metal Ceilings).

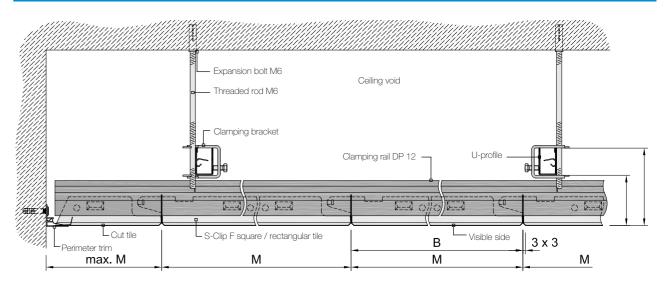
	Sustai	nability	Acoustics						Sa	ife & Healt	thy	
	ISO 14021							The state of the s			+	
	Recycled content (%)	Light reflectance (%)	α _w up to	Sound absorption class	NRC up to	Dncw / Dnfw (dB) up to	Rw (dB) up to	Fire reaction	Humidity Resistance (%) up to	Cleanability	Bioguard paint option	Scratch resistance
Ultra Microperforation Rg 0501 (1)	up to 30	83	0.45(LM)	D	0.55	18	8	A1	95	scrubbable	~	~
Extra Microperforation Rg 0701 (2)	up to 30	80	0.55(L)	D	0.65	21	10	A2-s2, d0	95	wipeable moist cloth (3)	~	~
Microperforation Rd 1522 (2)	up to 30	65	0.70	С	0.70	16	6	A2-s2, d0	95	wipeable moist cloth (3)		~
Standard Perforation Rg 2516 (2)	up to 30	70	0.75(L)	С	0.80	18	8	A2-s2, d0	95	wipeable moist cloth (3)		~
Plain / Unperforated (1)	up to 30	85	0.10(L)	Not Classified	0.10	44	19	A1	95	scrubbable	~	~
Premium B15	up to 30	depends on perforation	0.65	С	0.60	41	20	A2-s1, d0	95	wipeable moist cloth		~
Premium OP19	up to 30	depends on perforation	1.00	А	0.90	31	15	A2-s2, d0	95	wipeable moist cloth		~

(1) RAL 9010 colour, without acoustic inlay, (2) RAL 9010 colour, with black acoustic fleece glued on rear. (3) Wipeable moist cloth for preforated tiles with fleece. Scrubbable for plain tiles or perforated tiles without fleece.

CROSS-SECTION S-CLIP F



LONGITUDINAL-SECTION S-CLIP F

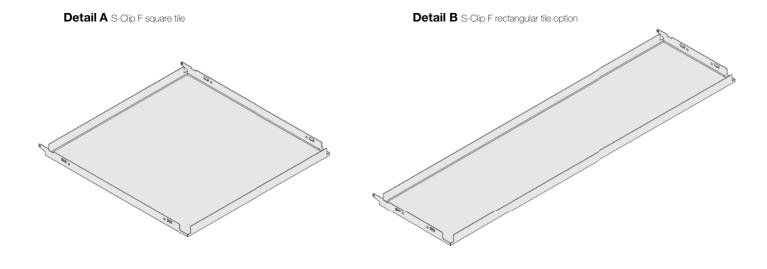


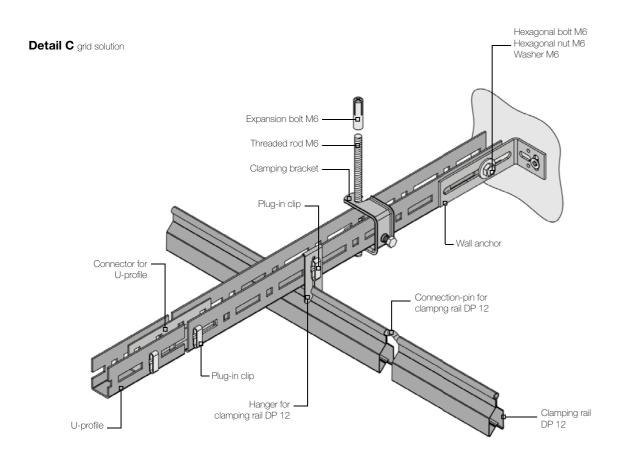
 $M = module \ size \ / \ A = tile \ length \ / \ B = tile \ width$

Item No.	Designation
BPM 300100	U-profile
BPM 300119	Connector for U-profile
BPM 300120	Plug-in clip
BPM 300140	Wall anchor
BPM 300121	Clamping bracket
BPM 311111	Expansion bolt M6 x 30 mm
BPM 311099	Threaded rod M6 x 1000 mm

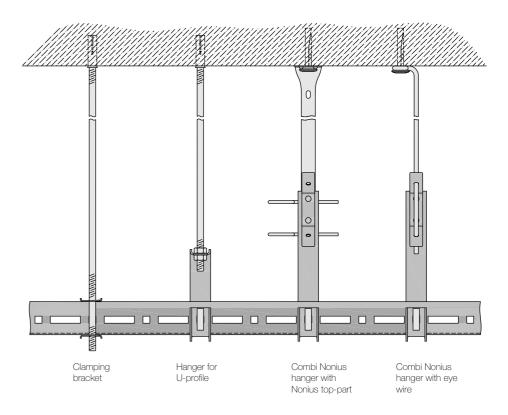
Item No.	Designation
BPM 311022	Clamping rail DP 12
BPM 300138	Connection pin for clamping rail DP 12
BPM 300105	Hanger for clamping rail DP 12
BPM 311303	Hexagonal bolt M6 x 16 mm
BPM 311103	Hexagonal nut M6
BPM 311305	Washer M6 18 x 1.6 mm
BPM 311046	Extraction tool

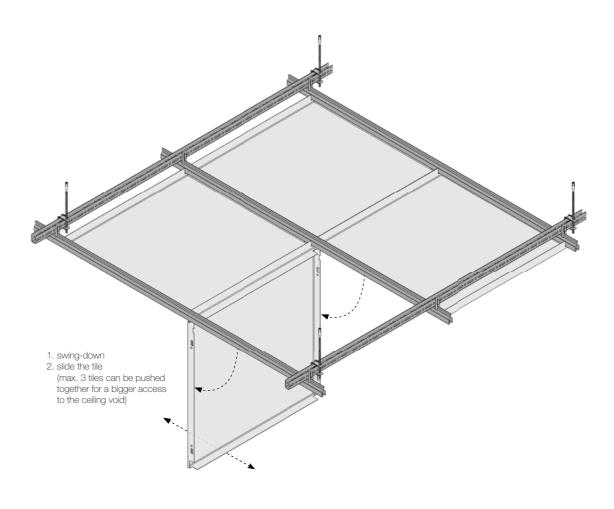
28 ::::





Detail D U-profile suspension methods







Inspiring Great Spaces™



BENEFITS APPLICATION AREA ■ Cost effective ■ Used in a variety of ceiling areas: Concealed grid system for a monolithic ceiling surface ■ Excellent acoustic performance from small service rooms to large ■ Downwardly demountable with the commercial office buildings and major use of an extraction tool for access transportation terminals. to the ceiling void. PROJECT: Learning Commons Building - Manchester University (UK) ::::::: ARCHITECT: Sheppard Robson

T-CLIP F SYSTEM SQUARE & RECTANGULAR TILES

SPECIFICATION

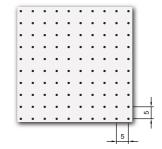
SELON ICATION	
System	Armstrong ceiling system T-Clip F, Clip-In solution with concealed grid, suspension height min. 90 mm
Tile material	Galvanised steel sheet 0.5 - 0.6 mm
Coating	RAL 9010 pure white post-coated powder painted visible surface, other RAL or NCS colours on request
Execution*	T-Clip F square or rectangular tile bevel edged 5 mm, optional T-Clip rectangular tile square edged
Gap solution	0 mm gap, without gasket
Acoustic inlay	Black non-woven acoustic fleece as standard. Other options available on request
Standard modules	T-Clip F: 500 x 500 mm 600 x 600 mm 675 x 675 mm 750 x 750 mm Additional rectangular modules available 600 x 1200 mm 300 x 1200 mm 600 x 1200 mm 300 x 1500 mm
Configurable dimensions	Panel length (A) 600 - 2500 mm Panel width (B) 300 / 400 / 500 / 600 mm

dimensions	Panel width (B) 300 / 400 / 500 / 600 mm	_
For further information ne Metal Edge Detail E	about the edge detail execution of metal tiles, please see secution datasheet.	_

Grid system	C-channel with spring-T, U-profile with spring-T optional
Perimeter solution	Range of standards trims in steel and aluminium plus custom bulkheads available
Service integration	Standard round or rectangular cut-outs plus customized options on request

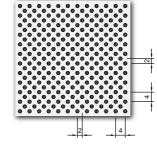


STANDARD PERFORATION PATTERNS



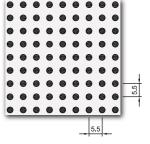
Extra Microperforation Rg 0701 Hole diameter: 0.7 mm

Hole diameter: 0.7 m Open area: 1.5 %



Microperforation Rd 1522

Hole diameter: 1.5 mm Open area: 22%



Standard Perforation Rg 2516

Hole diameter: 2.5 mm Open area: 16%

ACOUSTIC PERFORMANCE

Metal ceiling systems have been tested for their acoustic performance in terms of sound absorption, sound attenuation and sound reduction. These performance values will depend upon the perforation and the acoustic infill. Please contact us for more information on the available factory fitted acoustic options.

THERMAL CONDUCTIVITY

(λ) W/mK

50.0 : Steel

0.04 : Acoustic fleece

HUMIDITY EXPOSURE

Up to 95% RH (for short term exposure).

SERVICES INTEGRATION

Metal panels can be supplied with factory produced cut outs and apertures for the integration of building services equipment.

CLEANING

Dust should be removed from the painted surface by wiping with a clean soft cloth. More stubborn marks should be removed with a mild household detergent in warm water. Excessive use of water should be avoided. The use of abrasive cleaners of the painted surface is not recommended.

COLOUR

Standard colours

 RAL 9010
 20% gloss

 Global White
 12% gloss

 RAL 9006
 30% gloss

 RAL 9007
 30% gloss



Special colours

Other RAL and NCS colours available on request

QUALITY STANDARD

Armstrong is a certified **EN ISO 9001:2008** Quality Assured Manufacturer. All Armstrong ceiling and grid systems are manufactured to the relevant tolerances and quality standards appropriate to material. Where differences exist between this and any expressed or implied architectural specifications or requirements then Armstrong's manufacturing standards will prevail unless stated otherwise.

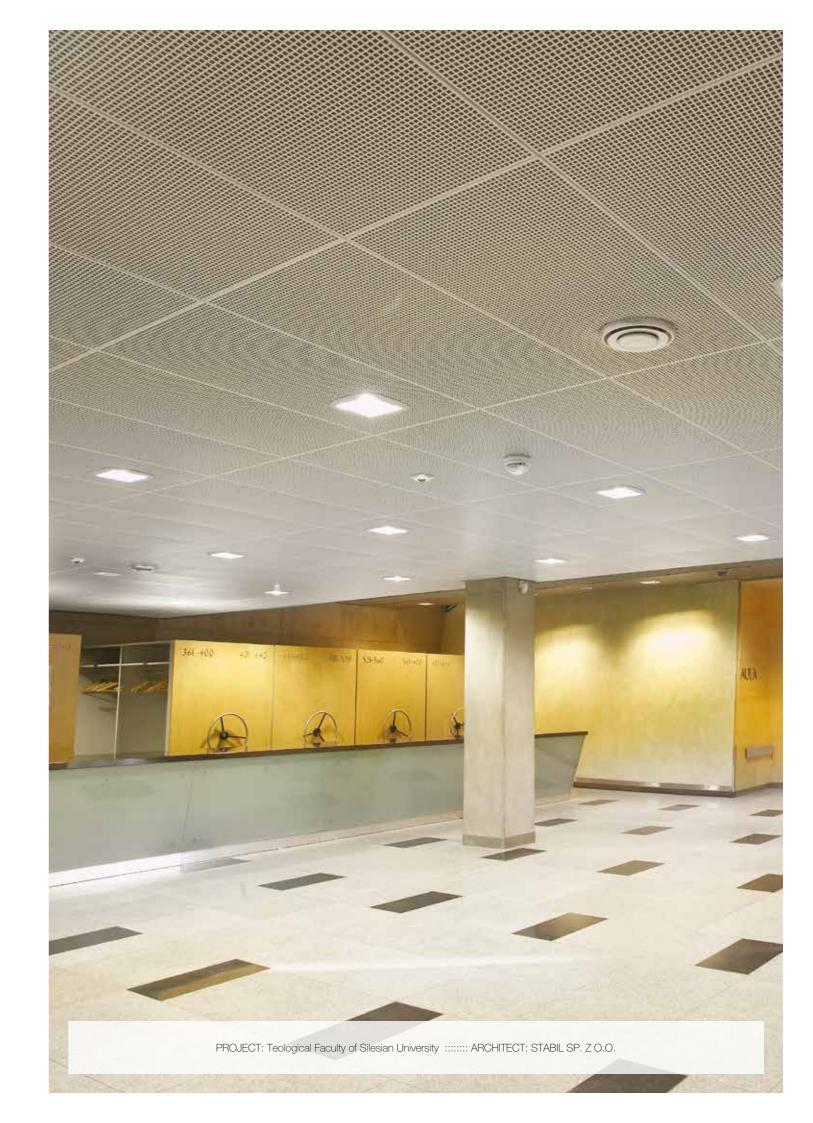
ENVIRONMENTAL

Our metal panels have an average of up to 30% recycling content. Our European manufacturing plants are certified to: **ISO 14001:2004 + Cor. 1:2009.**

Armstrong is a member of TAIM (Technical Association of Industrial Metal Ceilings).

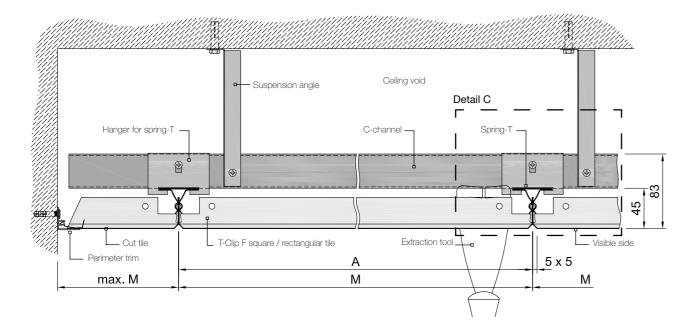
	Sustai	nability	Acoustics					Safe & Healthy				
	ISO 14021	///						The state of the s	4,4		+	
	Recycled content (%)	Light reflectance (%)	α_{w} up to	Sound absorption class	NRC up to	Dncw / Dnfw (dB) up to	Rw (dB) up to	Fire reaction	Humidity Resistance (%) up to	Cleanability	Bioguard paint option	Scratch resistance
										uinachla		
Extra Microperforation Rg 0701 (2)	up to 30	80	0.55(L)	D	0.65	21	10	A2-s2, d0	95	wipeable moist cloth (3)	~	~
Microperforation Rd 1522 (2)	up to 30	65	0.70	С	0.70	16	6	A2-s2, d0	95	wipeable moist cloth (3)		~
Standard Perforation Rg 2516 (2)	up to 30	70	0.75(L)	С	0.80	18	8	A2-s2, d0	95	wipeable moist cloth (3)		V
Plain / Unperforated (1)	up to 30	85	0.10(L)	Not Classified	0.10	44	19	A1	95	scrubbable	~	V
Premium B15	up to 30	depends on perforation	0.65	С	0.60	41	20	A2-s1, d0	95	wipeable moist cloth		~
Premium OP19	up to 30	depends on perforation	1.00	А	0.90	31	15	A2-s2, d0	95	wipeable moist cloth		~



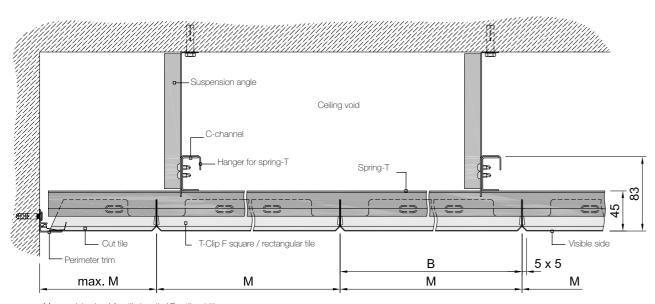


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CROSS-SECTION T-CLIP F with C-channel solution

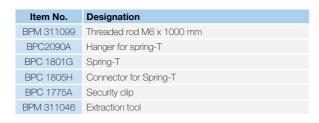


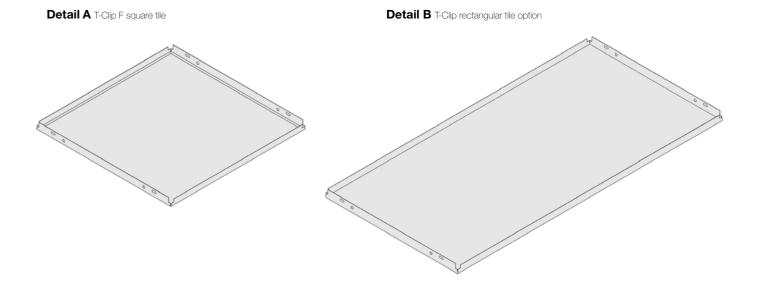
LONGITUDINAL-SECTION T-CLIP F with C-channel solution

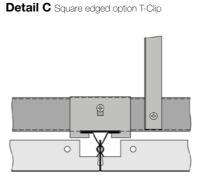


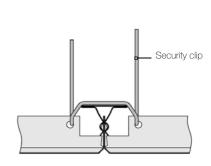
 $M = module \ size \ / \ A = tile \ length \ / \ B = tile \ width$

Item No.	Designation
BPM 300100	U-profile
BPM 300119	Connector for U-profile
BPM 300120	Plug-in clip
BPM 300140	Wall anchor
BPM 300121	Clamping bracket
BPM 311111	Expansion bolt M6 x 30 mm

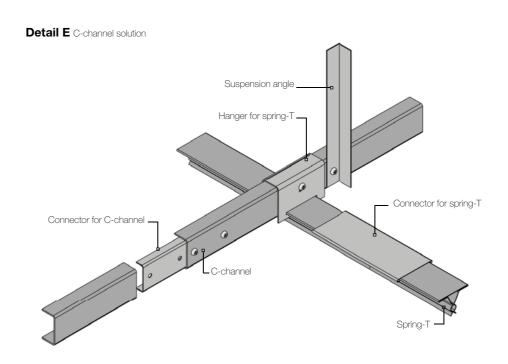






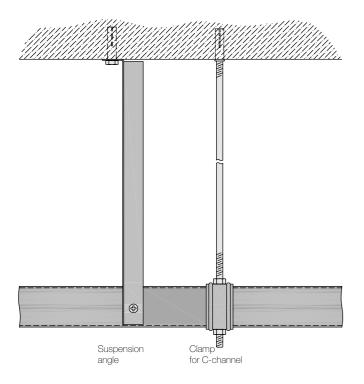


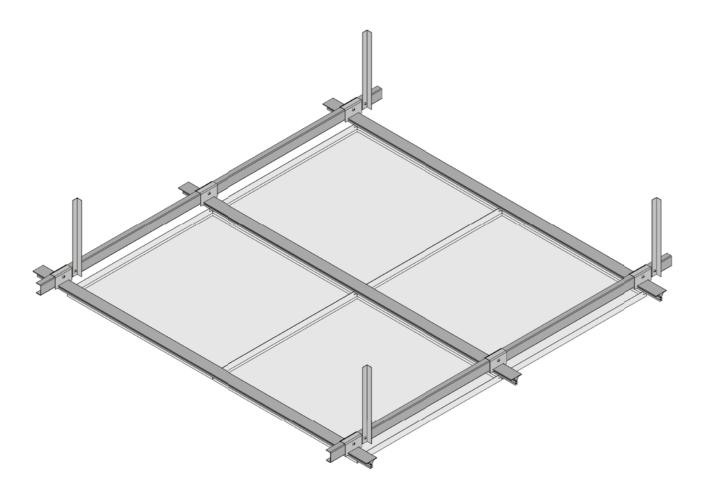
Detail D Security clip option



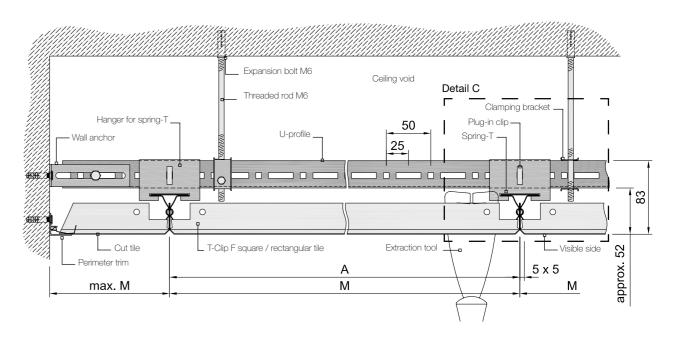
7 :::: :::: 38

Detail F C-channel suspension methods

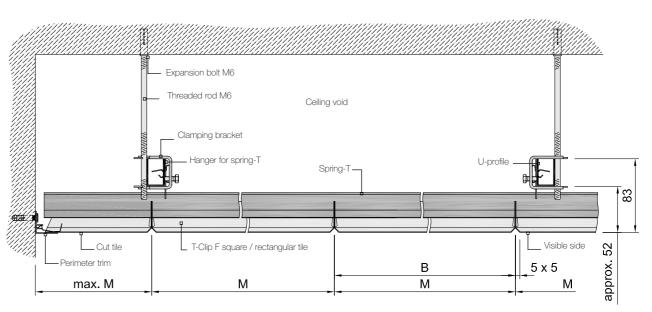




CROSS-SECTION T-CLIP F with U-profile system



LONGITUDINAL-SECTION T-CLIP F with U-profile system

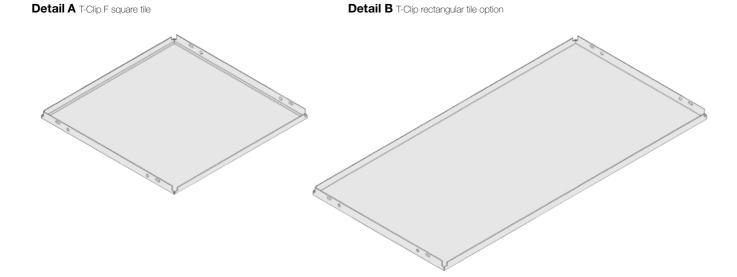


 $M = \mbox{module size} \ / \ A = \mbox{tile length} \ / \ B = \mbox{tile width}$

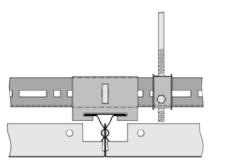
Item No.	Designation
BPM 300100	U-profile
BPM 300119	Connector for U-profile
BPM 300120	Plug-in clip
BPM 300140	Wall anchor
BPM 300121	Clamping bracket
BPM 311111	Expansion bolt M6 x 30 mm

Item No.	Designation
BPM 311099	Threaded rod M6 x 1000 mm
BPM300380	Hanger for spring-T
BPC 1801G	Spring-T
BPC 1775A	Security clip
BPM 311046	Extraction tool

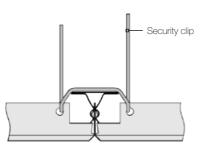
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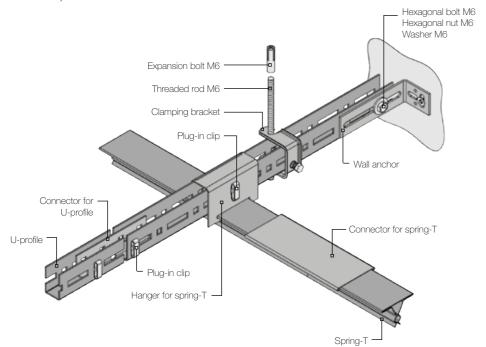
Detail C Square edged option T-Clip



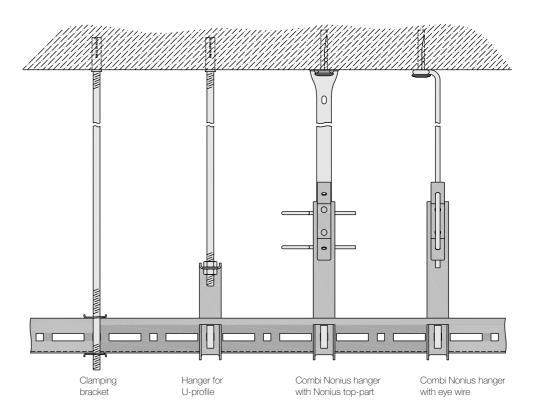
Detail D Security clip option

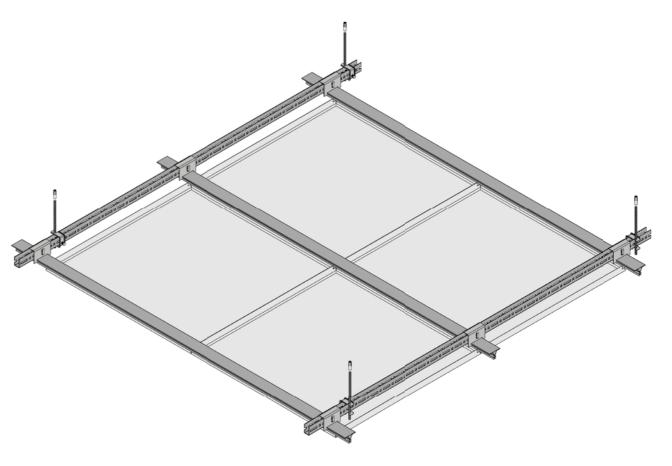


Detail E Grid system



Detail F U-profile suspension methods







METAL PREMIUM B15













Wipeable moist cloth

Items with Premium B15 infill

S-Clip F

T-Clip F

Board

Axal Vector MicroLook 8

MicroLook 16

Tegular 2

Tegular 8

Tegular 16

	STANDARD PERFORATED	MICROPERFORATED	EXTRA MICROPERFORATED
	Rg 2516	Rd 1522	Rg 0701
um B15 infill	2.5 mm dia. holes - 16% Open area	1.5 mm dia. holes - 22% Open area	0.7 mm dia. holes - 1.5% Open area
600 x 600 mm	2092 MP	2093 MP	2770 MP
900 x 300 mm	3709 MP	3712 MP	3715 MP
1200 x 300 mm 1500 x 300 mm	3710 MP 3711 MP	3713 MP 3714 MP	3716 MP 3717 MP
600 x 600 mm	9308 MP	9337 MP	2744 MP
1200 x 300 mm 1200 x 600 mm	9312 MP 4315 MP	9430 MP 4316 MP	2748 MP 2750 MP
1500 x 300 mm	9313 MP	9431 MP	2749 MP
600 x 600 mm	9335 MP	9427 MP	2771 MP
600 x 600 mm	9419 MP	9420 MP	2118 MP
600 x 600 mm	9339 MP	9324 MP	2184 MP
1200 x 300 mm	3720 MP	3722 MP	3724 MP
1200 x 600 mm	3721 MP	3723 MP	3725 MP
600 x 600 mm	4701 MP	4702 MP	2787 MP
600 x 600 mm	9443 MP	9444 MP	2786 MP
600 x 600 mm	9684 MP	9685 MP	2783 MP
1200 x 300 mm	3728 MP	3730 MP	3732 MP
1200 x 600 mm	3729 MP	3731 MP	3733 MP

9682 MP

For other size / item possibilities, please contact Armstrong Technical Sales.

2779 MP

	Perforation	Cert #	$\alpha_{\sf w}$	Class	NRC	125	250	500	1000	2000	4000	Hz
Sound Absorption	Rg 0701	2334	0.65	С	0.60	0.40	0.45	0.55	0.70	0.80	0.70	
Sound Absorption	Rd 1522	2337	0.60 (H)	С	0.60	0.40	0.40	0.50	0.65	0.75	0.90	αp
110	Rg 2516	2340	0.60 (H)	С	0.60	0.40	0.45	0.50	0.65	0.75	0.90	

\sim	Sound Reduction R _w	Perforation	Cert #	R _w	
		Rg 0701	7027	20	
		Rd 1522	5941a	18	
		Rg 2516	7028	18	

	Sound Attenuation D _{ncw}	Perforation	Cert #	D _{ncw}	
I-A·I		Rg 0701	2427	40	
5 11 1		Rd 1522	2443	41	
		Rg 2516	2443*	41	

^{*}Performance assessed based on the Rd 1522 test certificate.

600 x 600 mm





9681 MP





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CENTRAL EUROPE SOUTH

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Romania: www.armstronglafoni.rs
Slovakia: www.armstrong.sk
Slovenia: www.armstrongstropnisistemi.si
www.armstrongcellings.eu

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Middle East Regional Office,

Middle East Regional Office, Dubai, UAE & French Speaking Africa

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Turkey Armstrong Europa GmbH

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