

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 OP19 41

Metal
product



F-CLIP ACCESS SYSTEM

Corridor ceilings

Inspiring Great Spaces™

Armstrong®

F-CLIP ACCESS SYSTEM

CORRIDOR CEILINGS



BENEFITS

- Free-span solution
- Rectangular panel, adapted to corridor or circulation area width
- Various perimeter trim solutions for a clean aesthetic finish
- Meets visual and individual project requirements

APPLICATION AREA

- Easy, quick access to ceiling void due to the swing-down Access function
- Downwardly demountable with the use of an extraction tool for access to the ceiling void
- Corridors where the panels simply span between walls.

PROJECT: Laboratorios EPAL (SP) ARCHITECT: Gonçalo Byrne, Arquitectos Lda

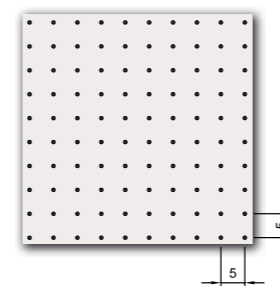
SPECIFICATION

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

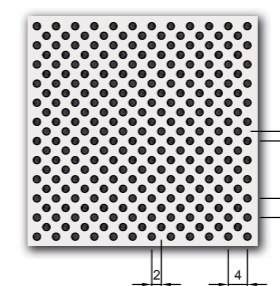
* For further information about the edge detail execution of metal tiles, please see the Metal Edge Detail Execution datasheet



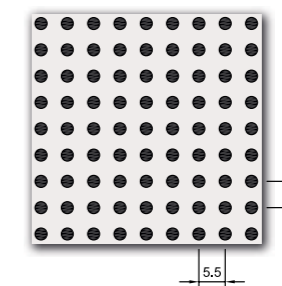
STANDARD PERFORATION PATTERNS



Extra Microperforation Rg 0701
Hole diameter: 0.7 mm
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%

Other perforation patterns available on request.

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 specifications or requirements then Armstrong's manufacturing standards will prevail unless stated otherwise.

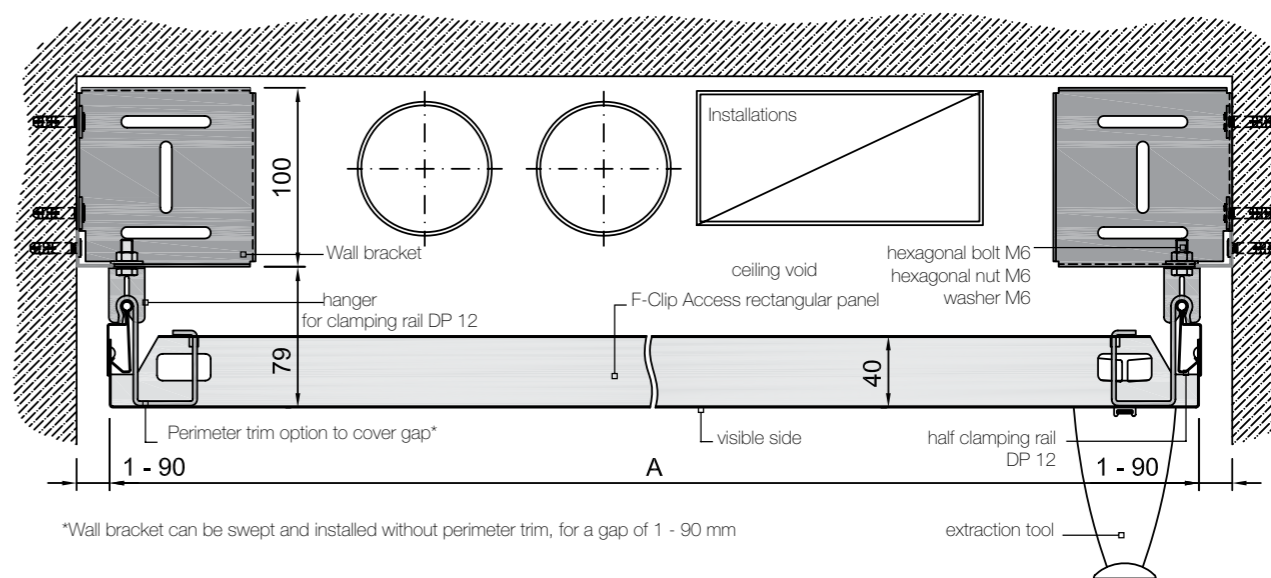
ENVIRONMENTAL

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).

Sustainability		Acoustics						Safe & Healthy				
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	
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	C	0.70	16	6	A2-s2, d0	95	wipeable moist cloth (3)		✓
Standard Perforation Rg 2516 (2)	up to 30	70	0.75(L)	C	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	A	0.90	31	15	A2-s2, d0	95	wipeable moist cloth		✓

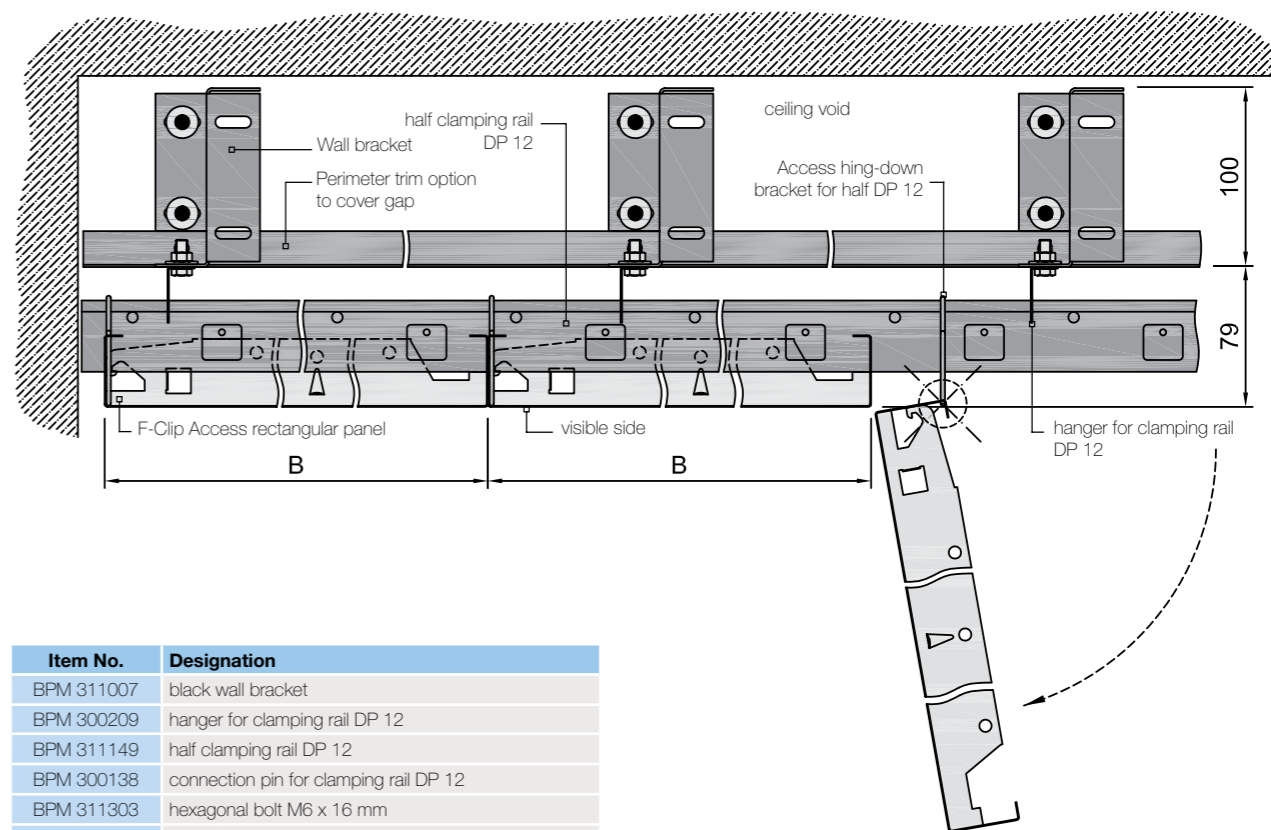
(1) RAL 9010 colour, without acoustic infill. (2) RAL 9010 colour, with black acoustic fleece glued on rear. (3) Wipeable moist cloth for perforated tiles with fleece. Scrubbable for plain tiles or perforated tiles without fleece.

CROSS-SECTION



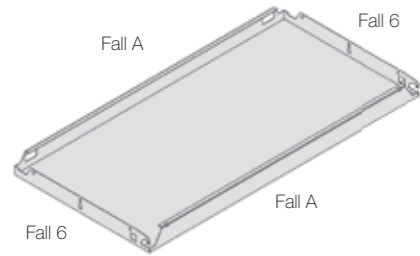
*Wall bracket can be swept and installed without perimeter trim, for a gap of 1 - 90 mm

LONGITUDINAL-SECTION

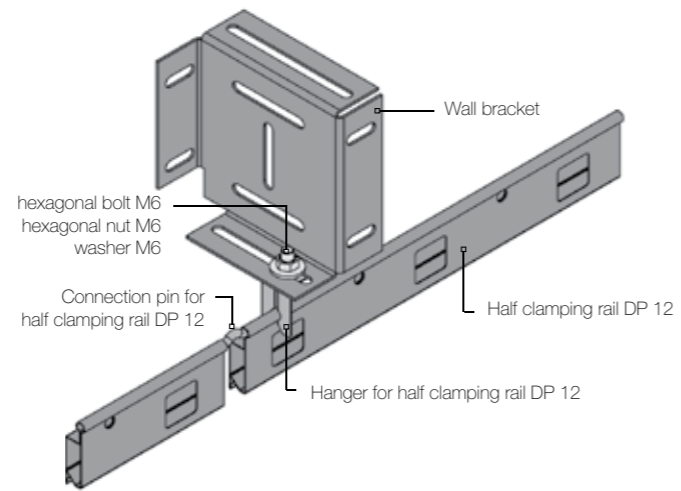


Item No.	Designation
BPM 311007	black wall bracket
BPM 300209	hanger for clamping rail DP 12
BPM 311149	half clamping rail DP 12
BPM 300138	connection pin for clamping rail DP 12
BPM 311303	hexagonal bolt M6 x 16 mm
BPM 311103	hexagonal nut M6
BPM 311305	washer M6 18 x 1.6 mm
BPM300189	access hinge-down bracket for half DP 12
BPM 300106	security clip
BPM 311028	extraction tool

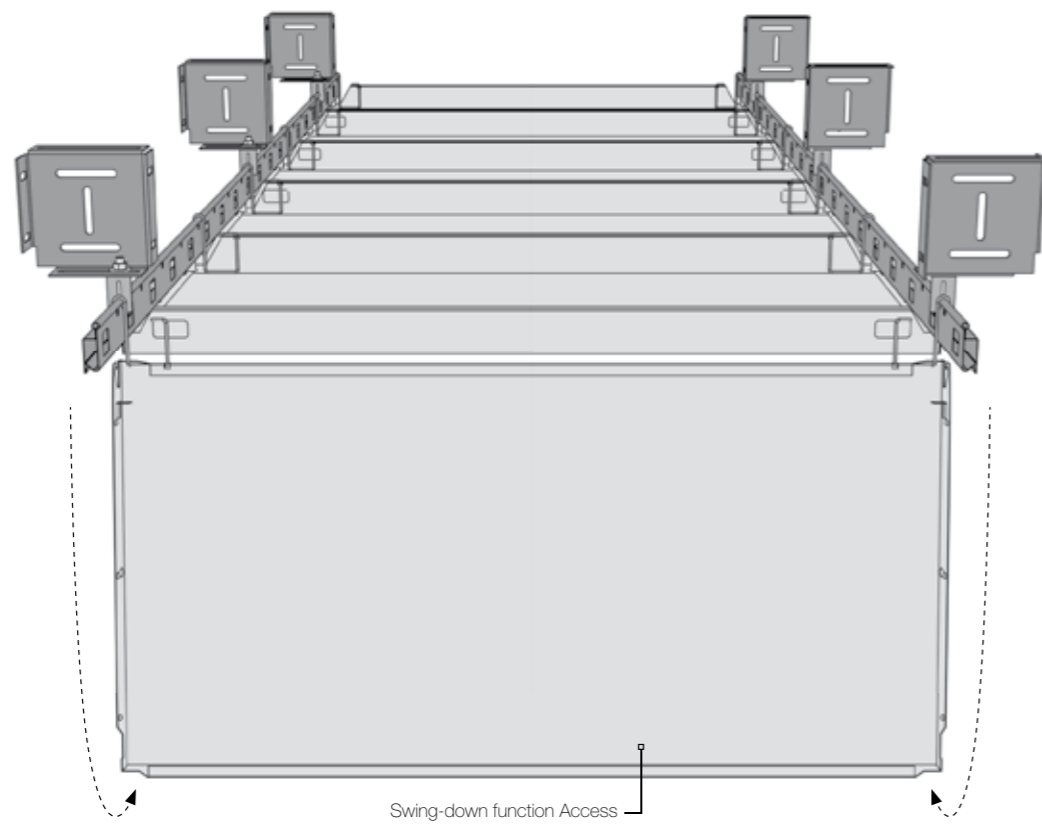
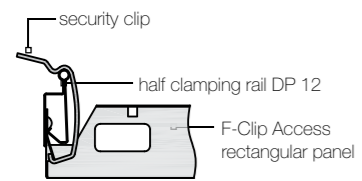
Detail A F-Clip Access rectangular panel



Detail B grid system



Detail C security clip



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



Metal
product

Q-CLIP SYSTEM
Square tiles

Inspiring Great Spaces™

Armstrong®

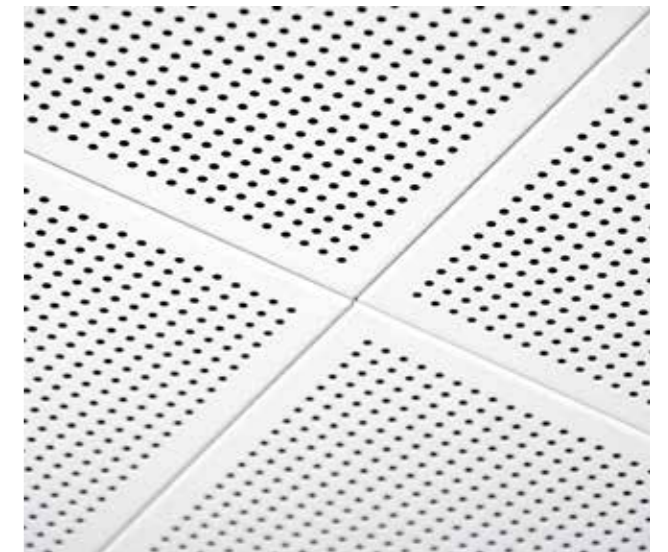
Q-CLIP SYSTEM SQUARE TILES



SPECIFICATION

System	Armstrong ceiling system Q-Clip, 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

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



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

BENEFITS

- Concealed grid system for a monolithic ceiling surface
- Downwardly demountable with the use of an extraction tool for access to the ceiling void.

Cost effective

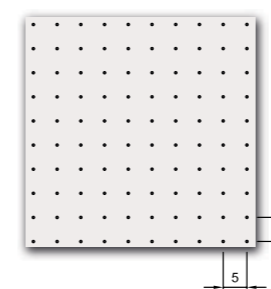
- Solution with optional swing-down "Window" function

APPLICATION AREA

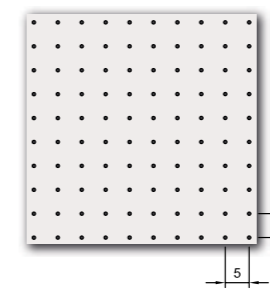
- Used in a variety of ceiling areas: from small service rooms to large commercial office buildings and major transportation terminals.

PROJECT: GGZ Oost Brabant (NL) ::::: ARCHITECT: MAS Architectuur

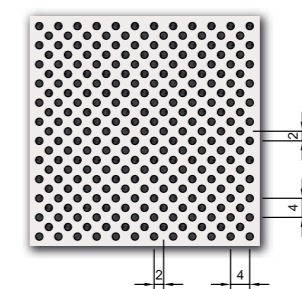
STANDARD PERFORATION PATTERNS



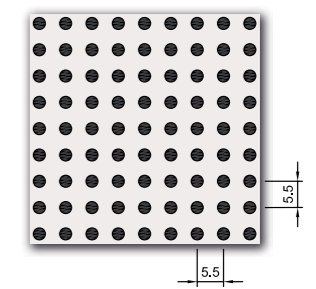
Ultra Microperforation Rg 0501
Hole diameter: 0.5 mm
Open area: 0.64 %



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%

Other perforation patterns available on request.

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 specifications or requirements then Armstrong's manufacturing standards will prevail unless stated otherwise.

ENVIRONMENTAL

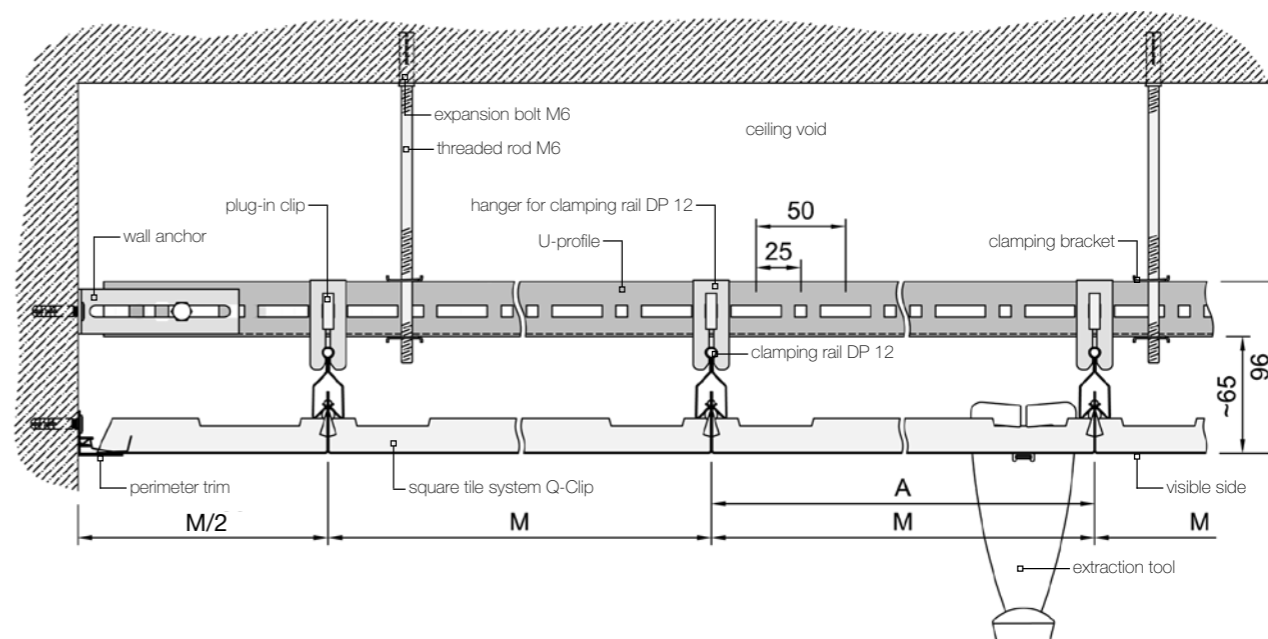
Our metal panels have an average of up to 30% recycling content. Our European manufacturing plants are certified to: **ISO 14001:2004 + Cor. 1:2009**
Armstrong is a member of TAIM (Technical Association of Industrial Metal Ceilings).

Sustainability		Acoustics						Safe & Healthy				
ISO 14021												
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	

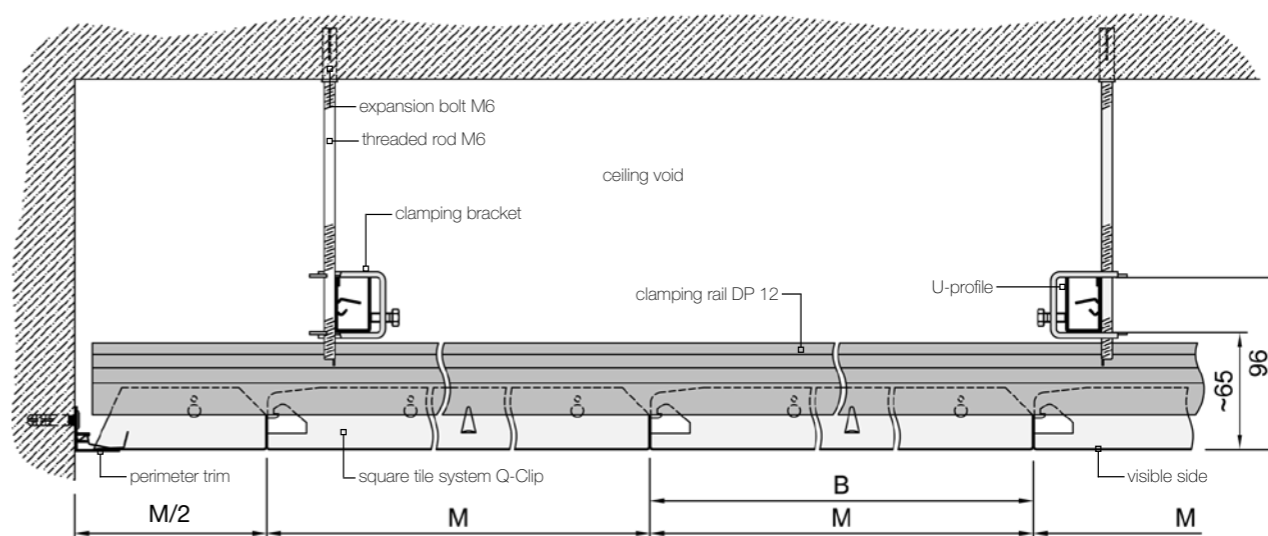
Ultra Microperforation Rg 0501 (1)	up to 30	83	0.45(L)	D	0.55	18	8	A1	95	scrubbable	✓	✓
Extra Microperforation Rg 0701 (2)	up to 30	80	0.55(L)	D	0.65	21	10	A2-s2, d0	95	wipeable moist cloth (3)	✓	✓
Microperforation Rd 1522 (2)	up to 30	65	0.70	C	0.70	16	6	A2-s2, d0	95	wipeable moist cloth (3)		✓
Standard Perforation Rg 2516 (2)	up to 30	70	0.75(L)	C	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 perforated 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

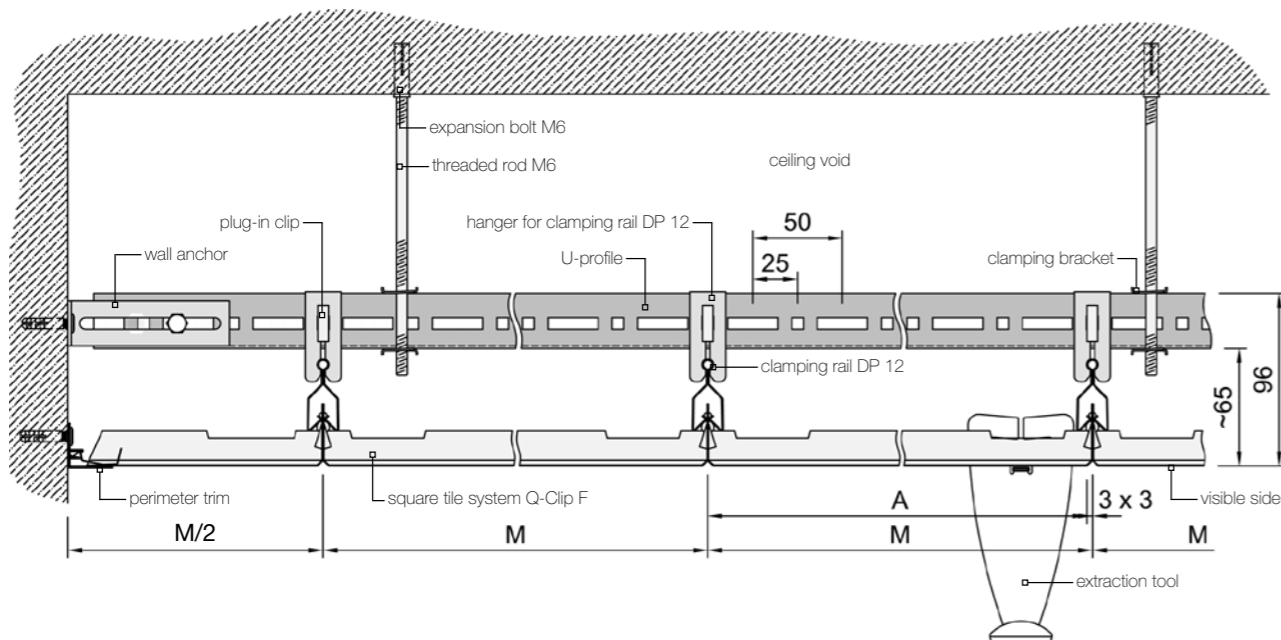


M = module size / A = tile length / B = tile width

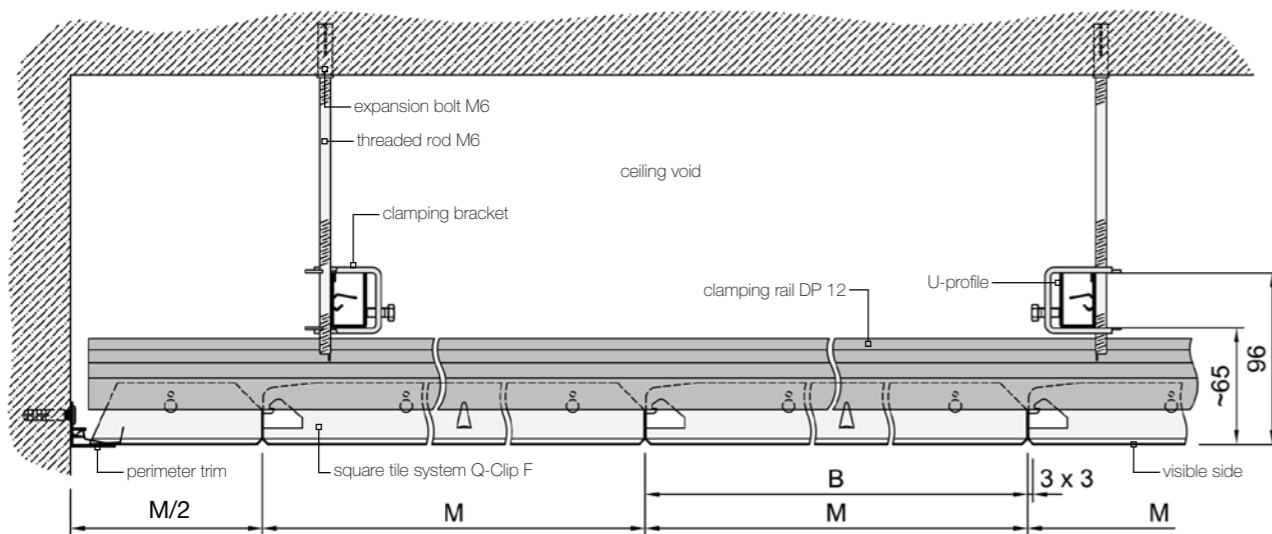
Item No.	Designation
BPM 300100	U-profile
BPM 300119	connector for U-profile
BPM 300120	plug-in clip
BPM 300140	wall anchor
BPM 300121	clamping bracket
BPM 311111	expansion bolt M6 x 30 mm
BPM 311099	threaded rod M6 x 1'000 mm
BPM 311022	clamping rail DP 12
BPM 300138	connection pin for clamping rail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

CROSS-SECTION Q-CLIP F

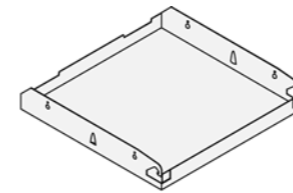


LONGITUDINAL-SECTION Q-CLIP F

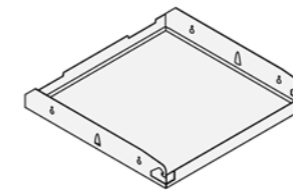


M = module size / A = tile length / B = tile width

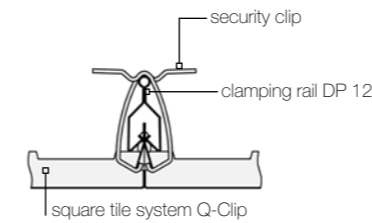
Detail A Q-Clip square tile



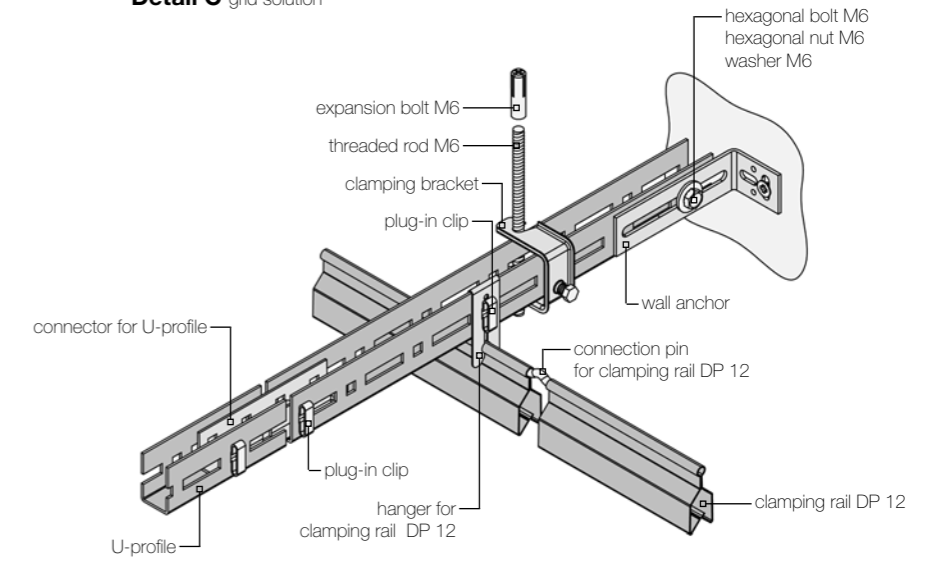
Detail B Q-Clip F square tile



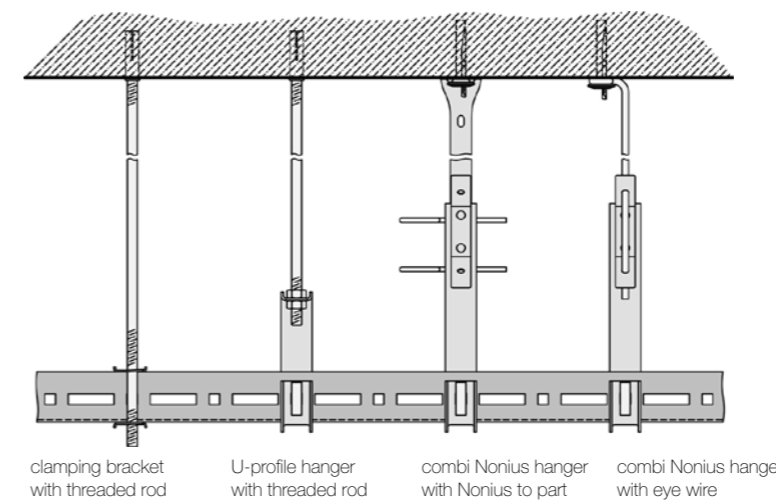
Detail D security clip



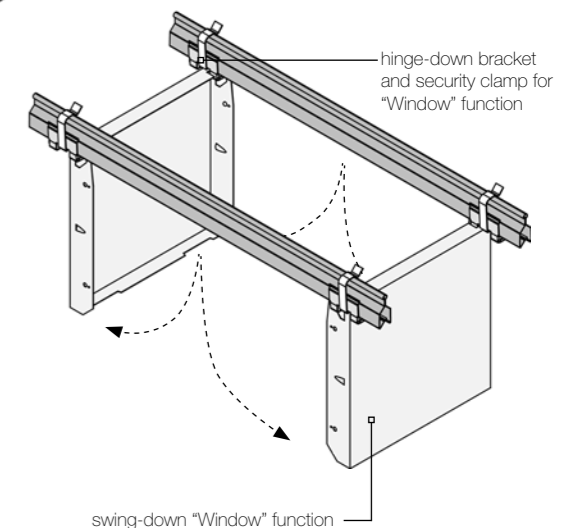
Detail C grid solution



Detail E suspension methods



clamping bracket with threaded rod U-profile hanger with threaded rod combi Nonius hanger with Nonius to part combi Nonius hanger with eye wire



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

Metal
product

R-CLIP SYSTEM

Rectangular panels / planks

Inspiring Great Spaces™

Armstrong®



R-CLIP SYSTEM

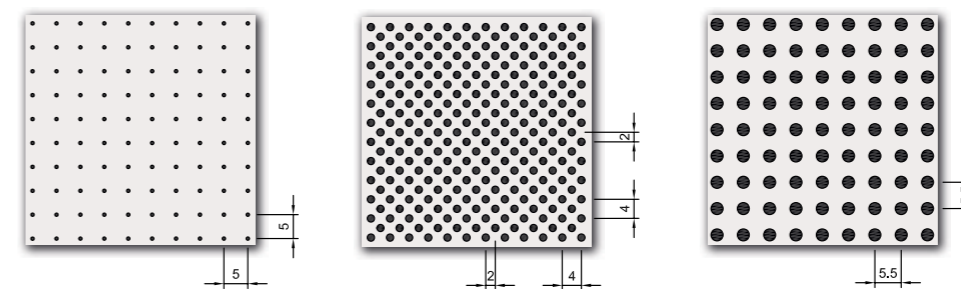
RECTANGULAR PANELS / PLANKS

SPECIFICATION

System	Armstrong ceiling system R-Clip, Clip-In solution with concealed grid, with optional swing-down "Window" function, suspension height min. 100 mm	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
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)	Configurable dimensions	R-Clip: panel length (A) 600 - 2500 mm panel width (B) 275 - 600 mm
Coating	RAL 9010 pure white post-coated powder painted visible surface, other RAL or NCS colours on request.	Grid system	GemaGrid® system in combination with clamping rail DP 12, security clip optional available, further suspension methods 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)	Perimeter solution	Range of standards trims in steel and aluminium plus custom bulkheads available.
Gap solution	0 mm gap, without gasket	Service integration	standard round or rectangular cut-outs plus customised options on request.
Acoustic inlay	Black non-woven acoustic fleece as standard. Other options available on request.	Special capabilities	- secured exterior ceiling solution - can be combined with other Armstrong products - clean room ceiling solution (R-Clip F)

* 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
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%

BENEFITS

- Versatile system and simple design
- 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
- Downwardly demountable with the use of an extraction tool for access to the ceiling void

APPLICATION AREA

- Suitable for large open plan / circulation areas.

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

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ENVIRONMENTAL

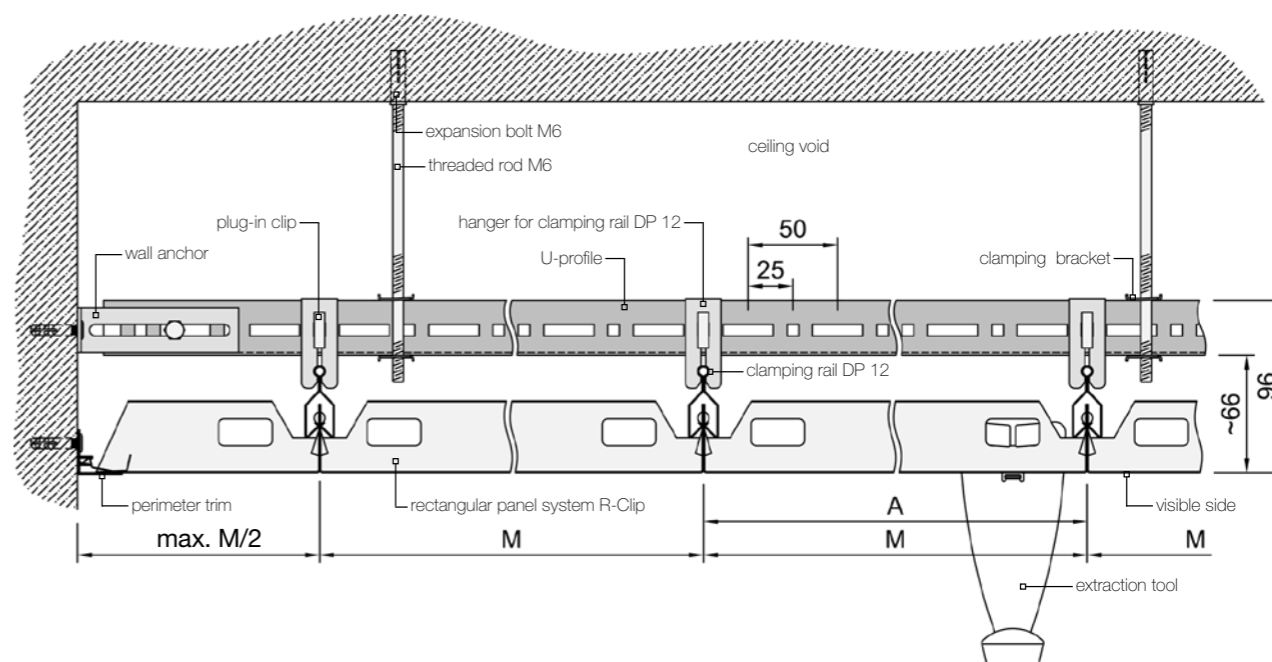
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Sustainability		Acoustics					Safe & Healthy					
Recycled content (%)	Light reflectance (%)	α _w up to	Sound absorption class	NRC up to	Dncw / Dnfw (dB) up to	Rw (dB) up to	Fire reaction	Humidity Resistance (%) up to	Cleanability	Bioguard paint option	Air quality	Scratch resistance

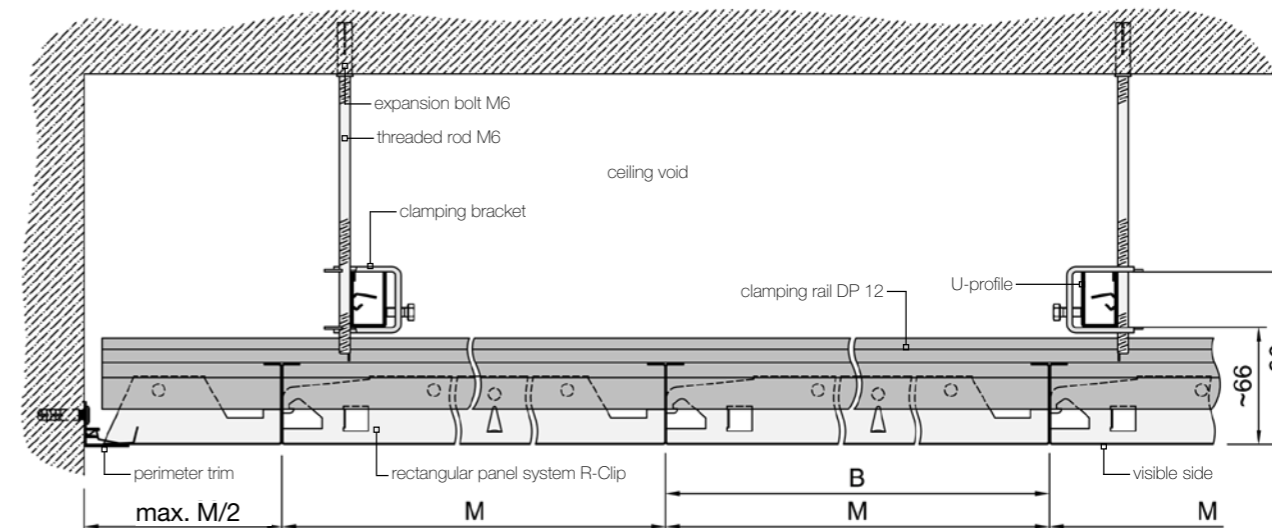
Extra Microperforation Rg 0701 (2)	up to 30	80	0.55(L)	D	0.65	21	10	A2-s2, d0	95	wipeable moist cloth (3)	✓	✓
Microperforation Rd 1522 (2)	up to 30	65	0.70	C	0.70	16	6	A2-s2, d0	95	wipeable moist cloth (3)		✓
Standard Perforation Rg 2516 (2)	up to 30	70	0.75(L)	C	0.80	18	8	A2-s2, d0	95	wipeable moist 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)	✓	ISO 5 (5)
Premium B15 (5)	up to 30	depends on perforation	0.65	C	0.60	41	20	A2-s1, d0	95	wipeable moist cloth		✓
Premium OP19 (5)	up to 30	depends on perforation	1.00	A	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 perforated 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

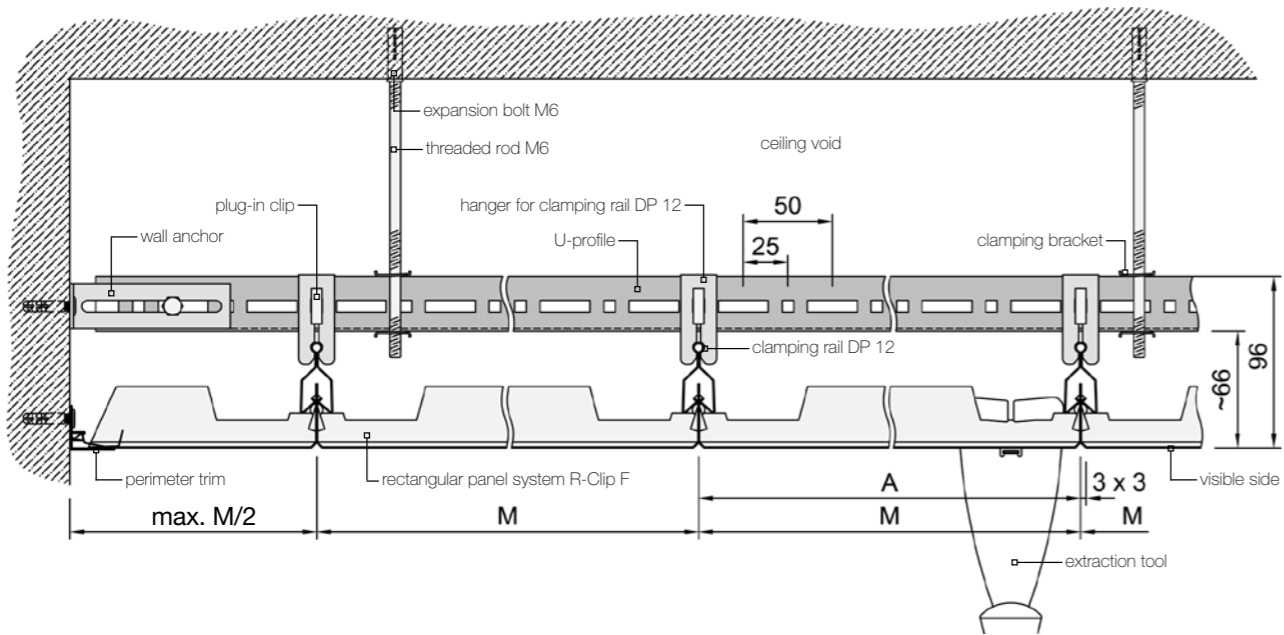


M = module size / A = panel length / B = panel width

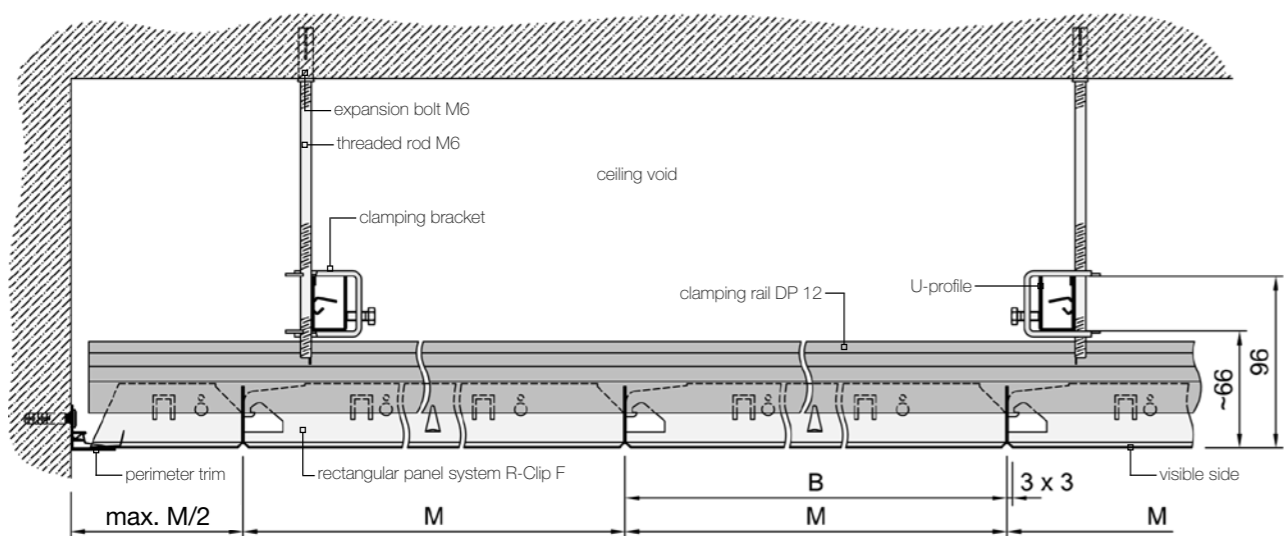
Item No.	Designation
BPM 300100	U-profile
BPM 300119	connector for U-profile
BPM 300120	plug-in clip
BPM 300140	wall anchor
BPM 300121	clamping bracket
BPM 311111	expansion bolt M6 x 30 mm
BPM 311099	threaded rod M6 x 1'000 mm
BPM 311022	clamping rail DP 12
BPM 300138	connection pin for clamping rail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

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

CROSS-SECTION R-CLIP F

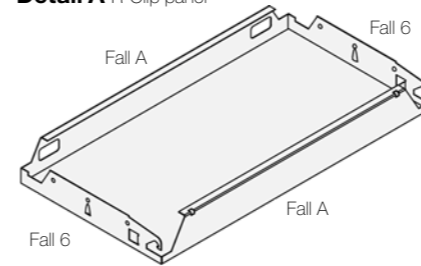


LONGITUDINAL-SECTION R-CLIP F

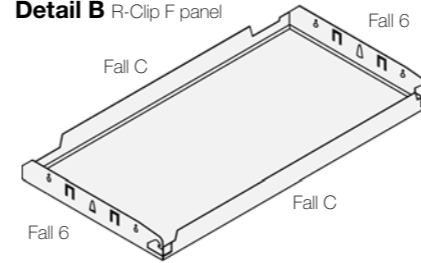


M = module size / A = panel length / B = panel width

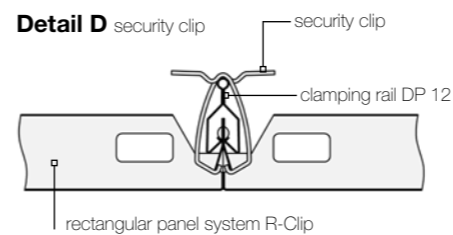
Detail A R-Clip panel



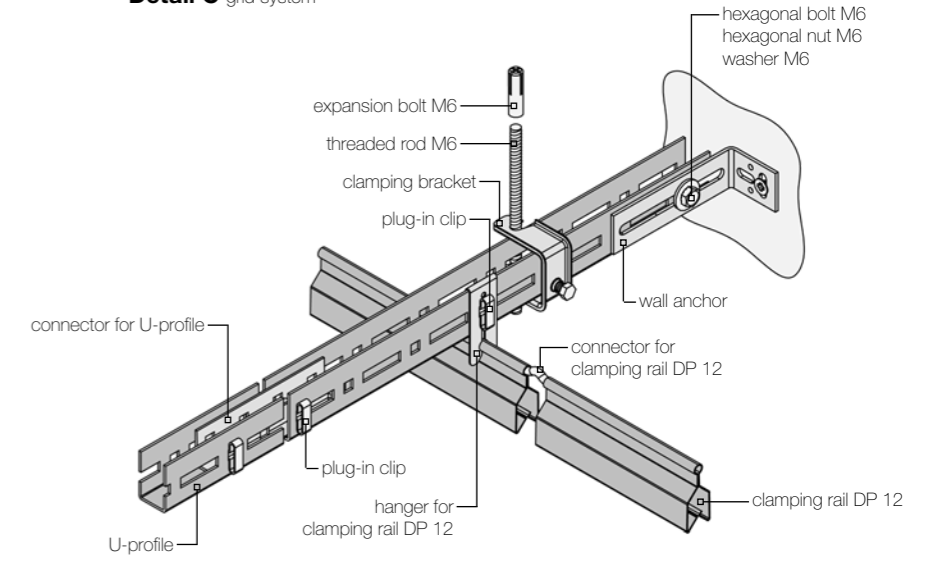
Detail B R-Clip F panel



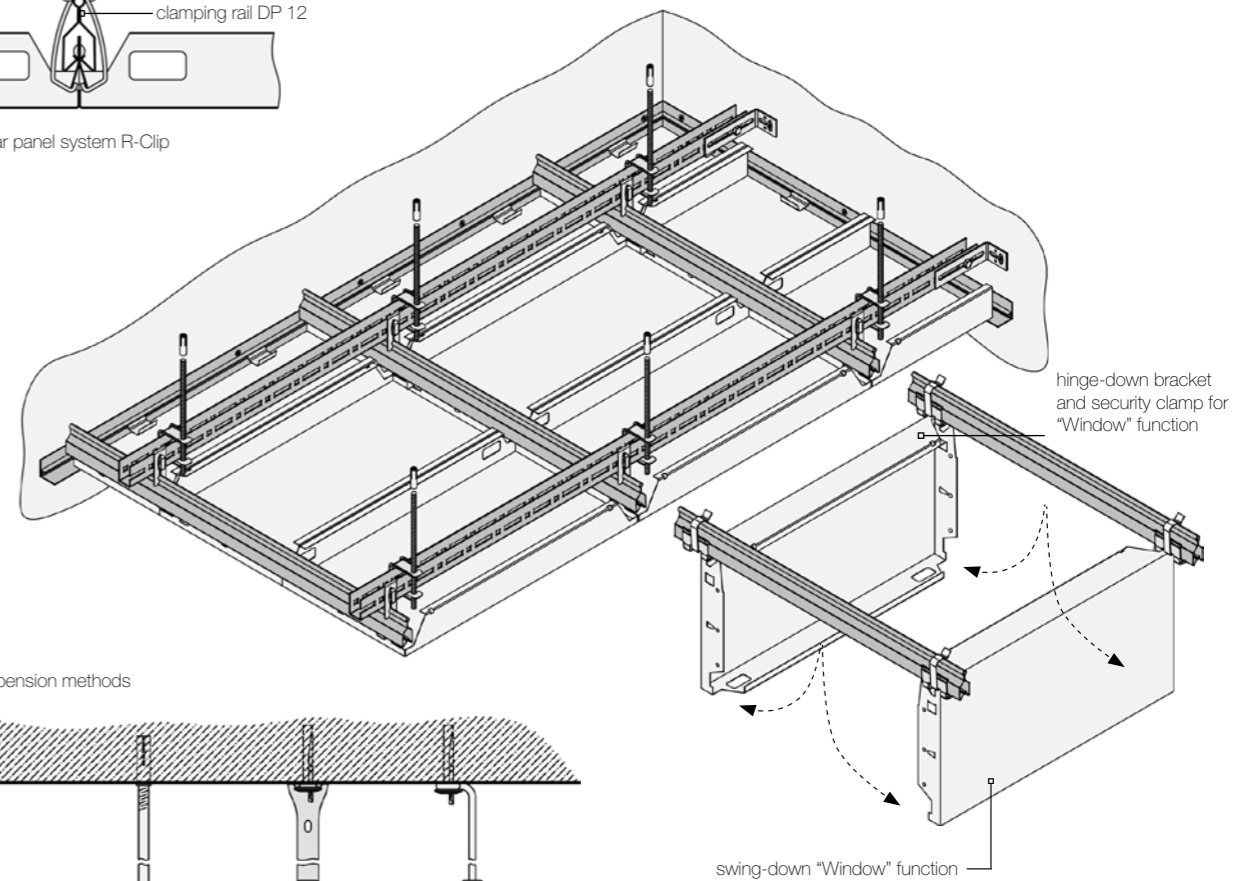
Detail D security clip



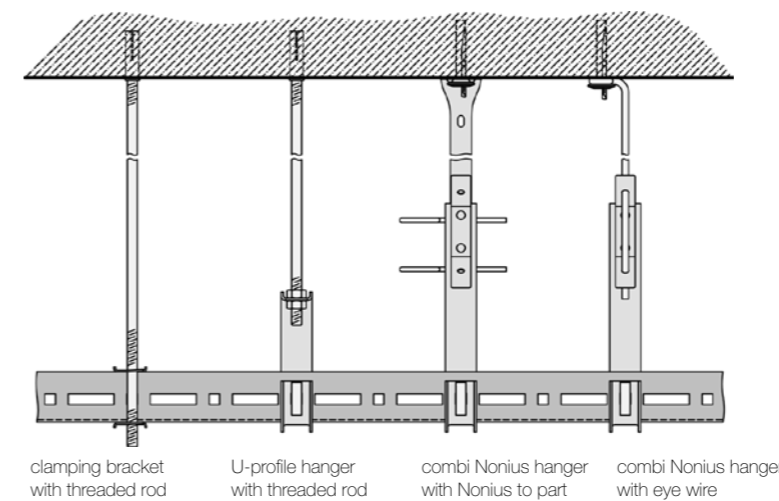
Detail C grid system



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



Detail E suspension methods



Metal
product



S-CLIP F SYSTEM
Square & rectangular tiles

Inspiring Great Spaces™

Armstrong®



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

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.



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

BENEFITS

- Concealed grid system for a monolithic ceiling surface
- Downwardly demountable with the use of an extraction tool for access to the ceiling void.

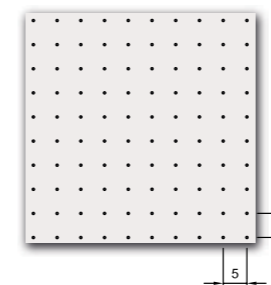
- Cost effective
- Excellent acoustic performance
- With integrated swing-down function

APPLICATION AREA

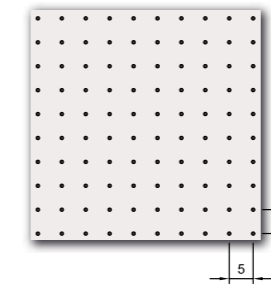
- Used in a variety of ceiling areas: from small service rooms to large commercial office buildings and major transportation terminals.

PROJECT: 10 Woodcock Street, Birmingham County Council (UK) ::::: ARCHITECT: Associated Architects

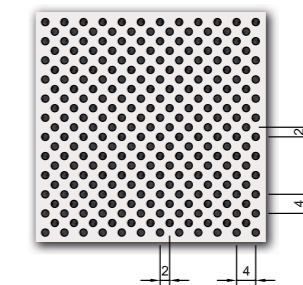
STANDARD PERFORATION PATTERNS



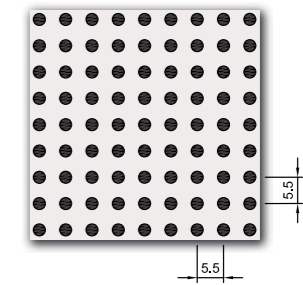
Ultra Microperforation Rg 0501*
Hole diameter: 0.5 mm
Open area: 0.64 %



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.

Other perforation patterns available on request.

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

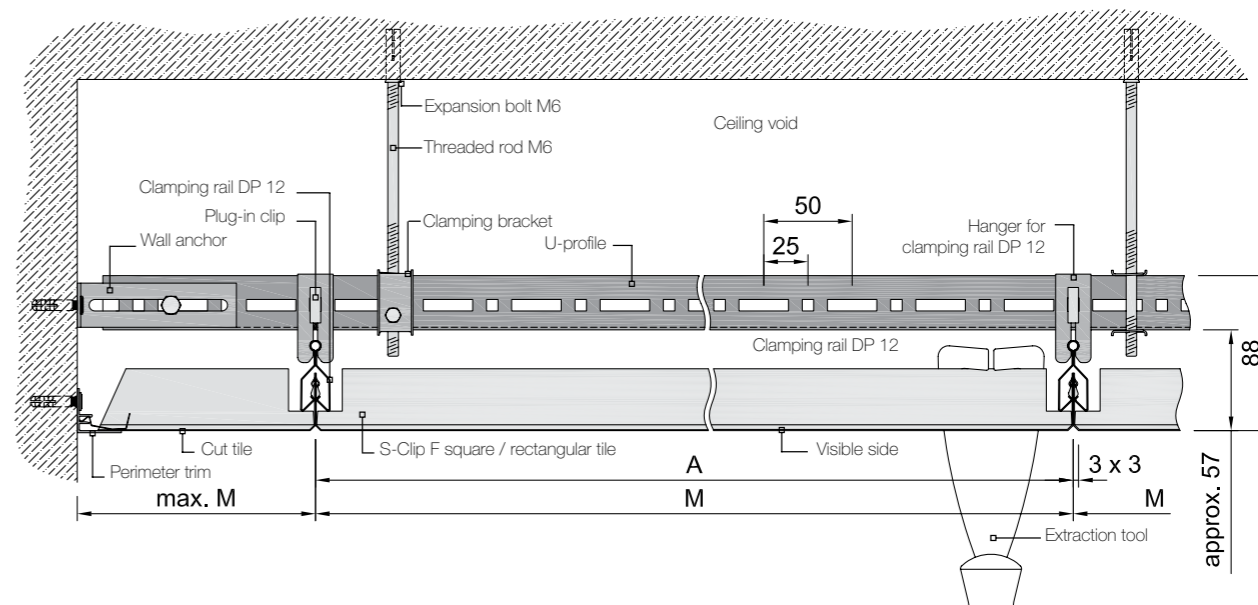
Our metal panels have an average of up to 30% recycling content. Our European manufacturing plants are certified to: **ISO 14001:2004 + Cor. 1:2009**
Armstrong is a member of TAIM (Technical Association of Industrial Metal Ceilings).

Sustainability		Acoustics						Safe & Healthy				
Recycled content (%)	Light reflectance (%)	α _w up to	Sound absorption class	NRC up to	D _{ncw} / D _{nfw} (dB) up to	R _w (dB) up to	Fire reaction	Humidity Resistance (%) up to	Cleanability	Bioguard paint option	Scratch resistance	

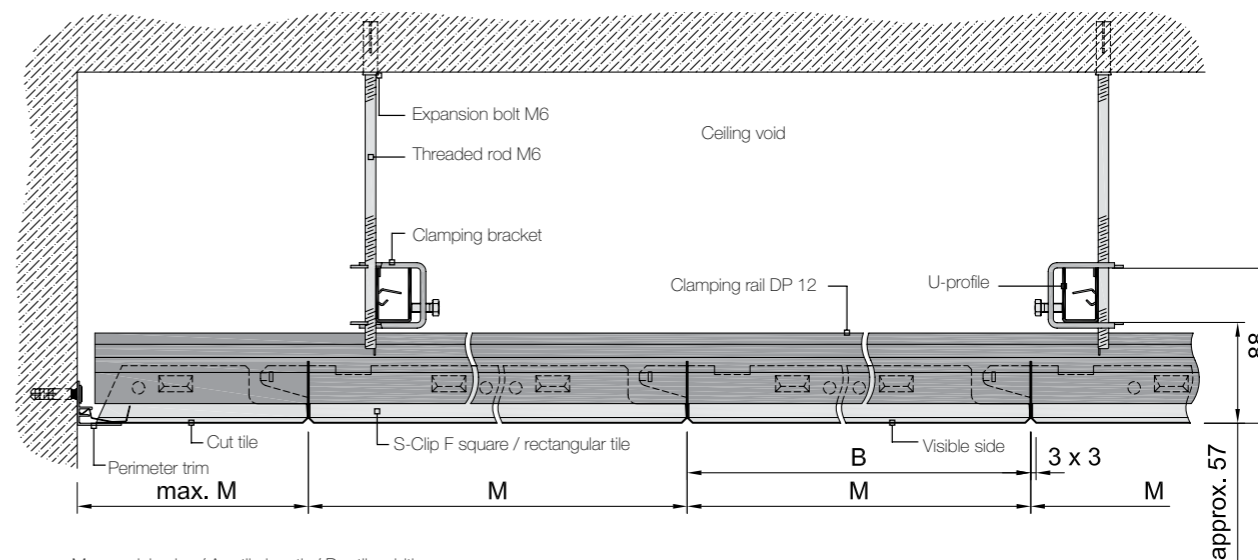
Ultra Microperforation Rg 0501 (1)	up to 30	83	0.45(LM)	D	0.55	18	8	A1	95	scrubbable	✓	✓
Extra Microperforation Rg 0701 (2)	up to 30	80	0.55(L)	D	0.65	21	10	A2-s2, d0	95	wipeable moist cloth (3)	✓	✓
Microperforation Rd 1522 (2)	up to 30	65	0.70	C	0.70	16	6	A2-s2, d0	95	wipeable moist cloth (3)		✓
Standard Perforation Rg 2516 (2)	up to 30	70	0.75(L)	C	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	C	0.60	41	20	A2-s1, d0	95	wipeable moist cloth		✓
Premium OP19	up to 30	depends on perforation	1.00	A	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 perforated tiles with fleece. Scrubbable for plain tiles or perforated tiles without fleece.

CROSS-SECTION S-CLIP F



LONGITUDINAL-SECTION S-CLIP F

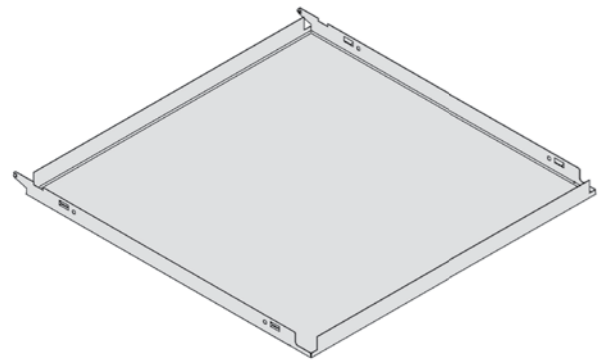


M = module size / A = tile length / B = tile width

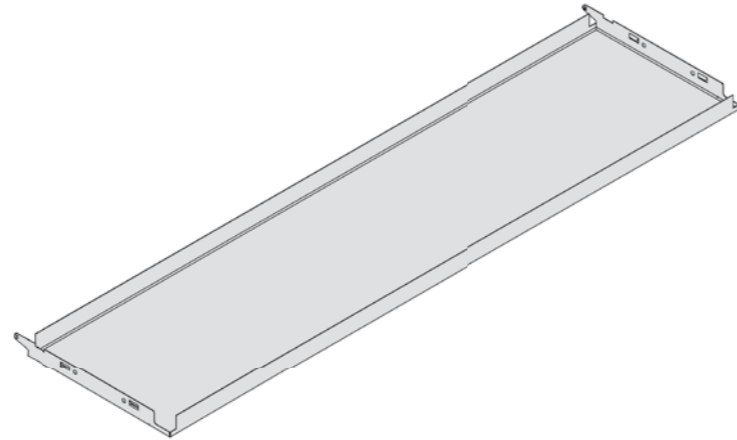
Item No.	Designation
BPM 300100	U-profile
BPM 300119	Connector for U-profile
BPM 300120	Plug-in clip
BPM 300140	Wall anchor
BPM 300121	Clamping bracket
BPM 311111	Expansion bolt M6 x 30 mm
BPM 311099	Threaded rod M6 x 1000 mm

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

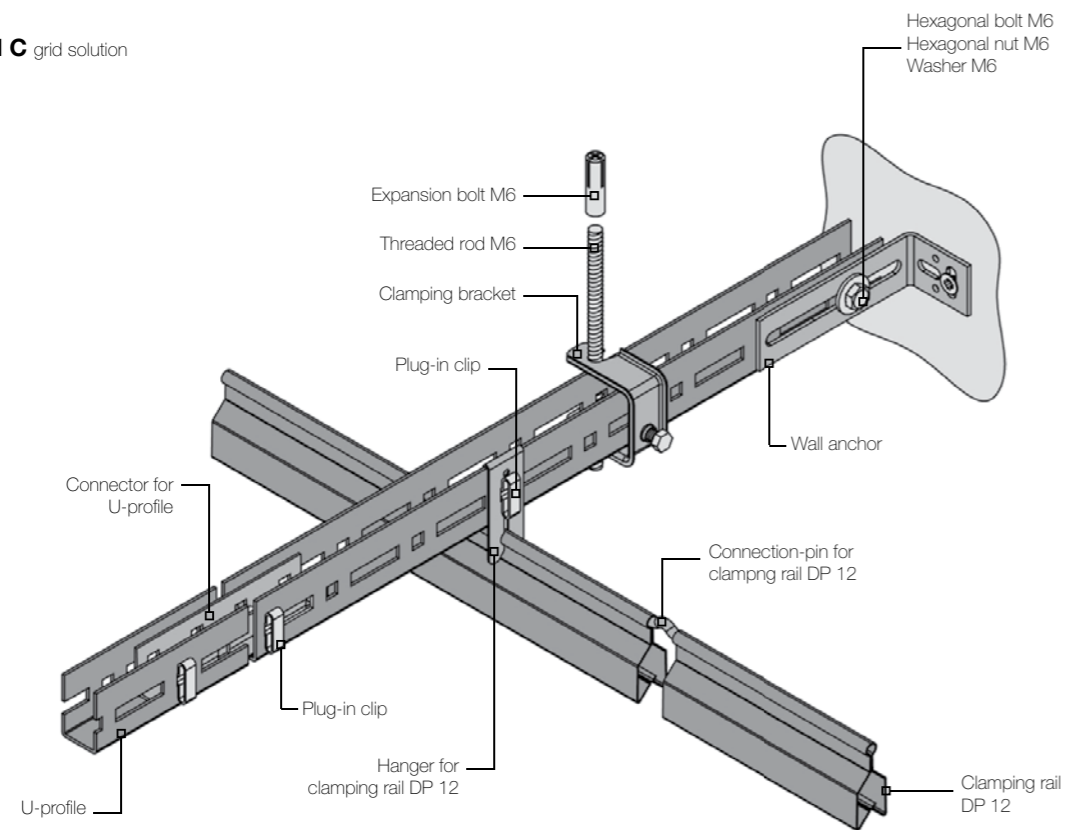
Detail A S-Clip F square tile



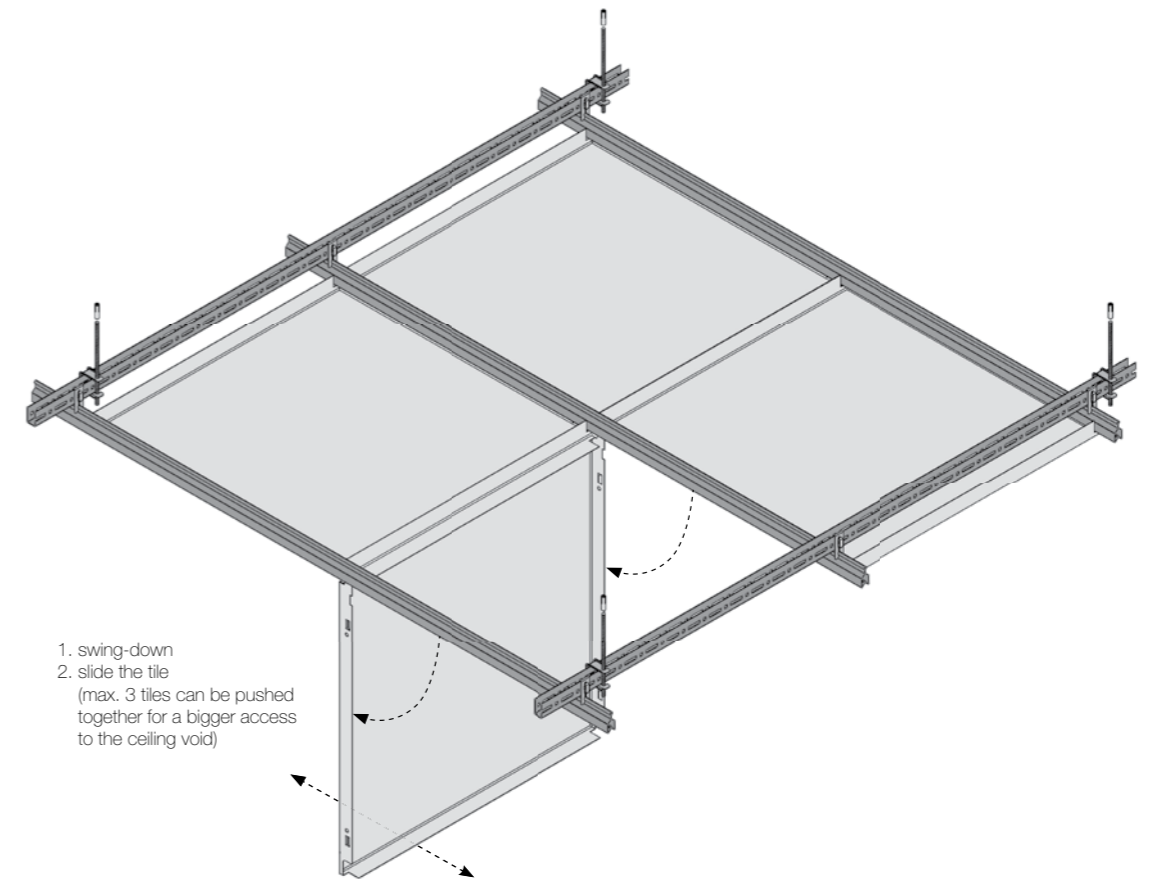
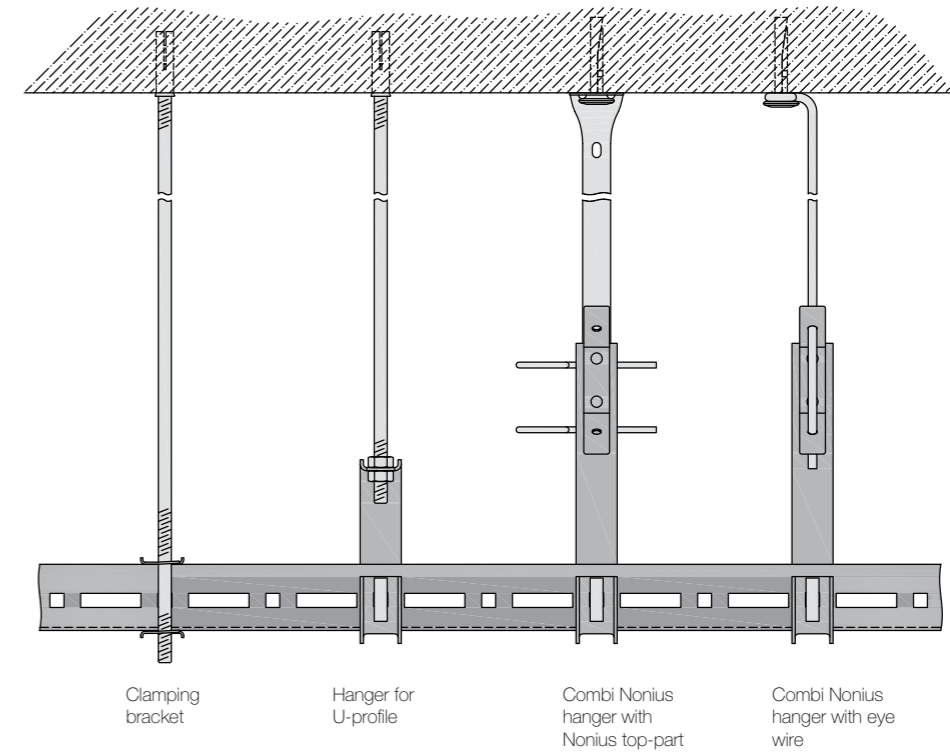
Detail B S-Clip F rectangular tile option



Detail C grid solution



Detail D U-profile suspension methods



Metal
product

T-CLIP F SYSTEM

Square & rectangular tiles

Inspiring Great Spaces™

Armstrong®

T-CLIP F SYSTEM

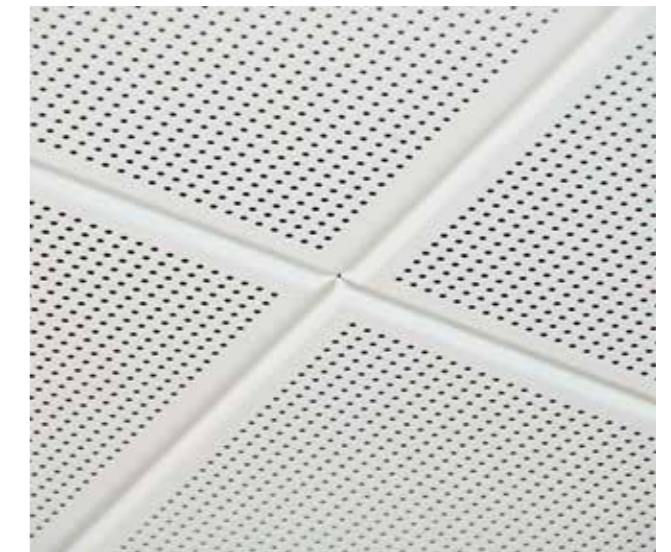
SQUARE & RECTANGULAR TILES



SPECIFICATION

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

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



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

BENEFITS

- Concealed grid system for a monolithic ceiling surface
- Downwardly demountable with the use of an extraction tool for access to the ceiling void.

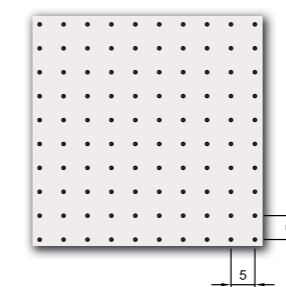
- Cost effective
- Excellent acoustic performance

APPLICATION AREA

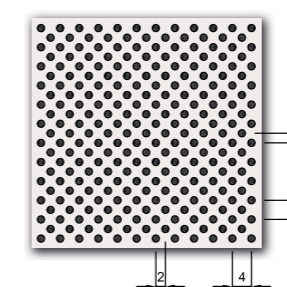
- Used in a variety of ceiling areas: from small service rooms to large commercial office buildings and major transportation terminals.

PROJECT: Learning Commons Building - Manchester University (UK) : ARCHITECT: Sheppard Robson

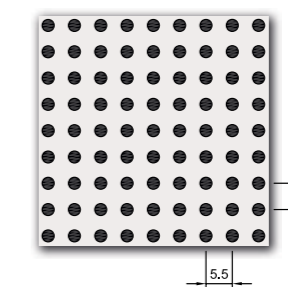
STANDARD PERFORATION PATTERNS



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%

Other perforation patterns available on request.

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.

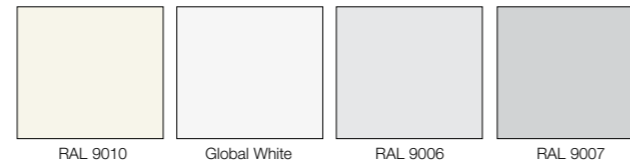
CLEANING

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

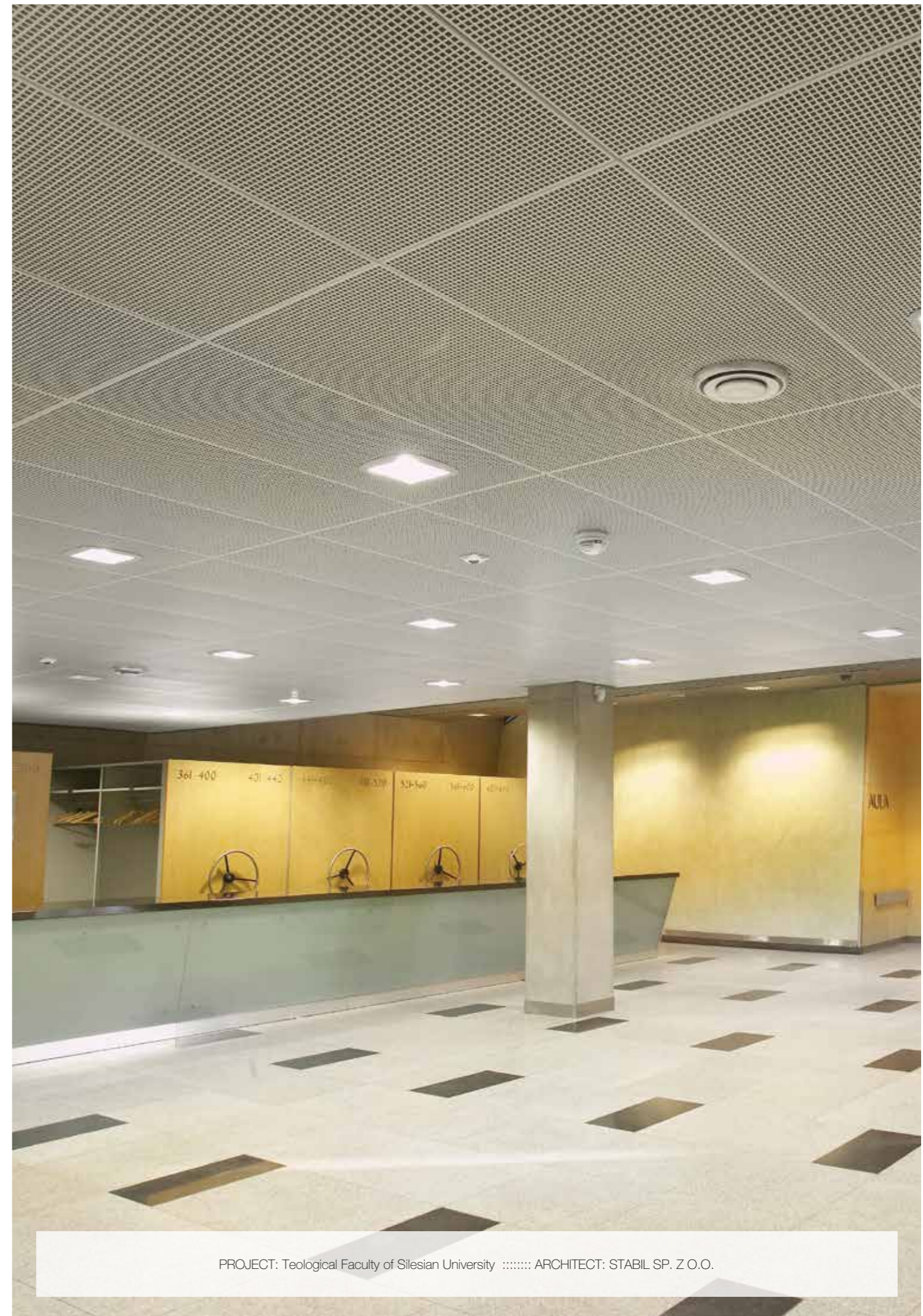
Armstrong is a certified **EN ISO 9001:2008** Quality Assured Manufacturer. All Armstrong ceiling and grid systems are manufactured to the relevant tolerances and quality standards appropriate to material. Where differences exist between this and any expressed or implied architectural specifications 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).

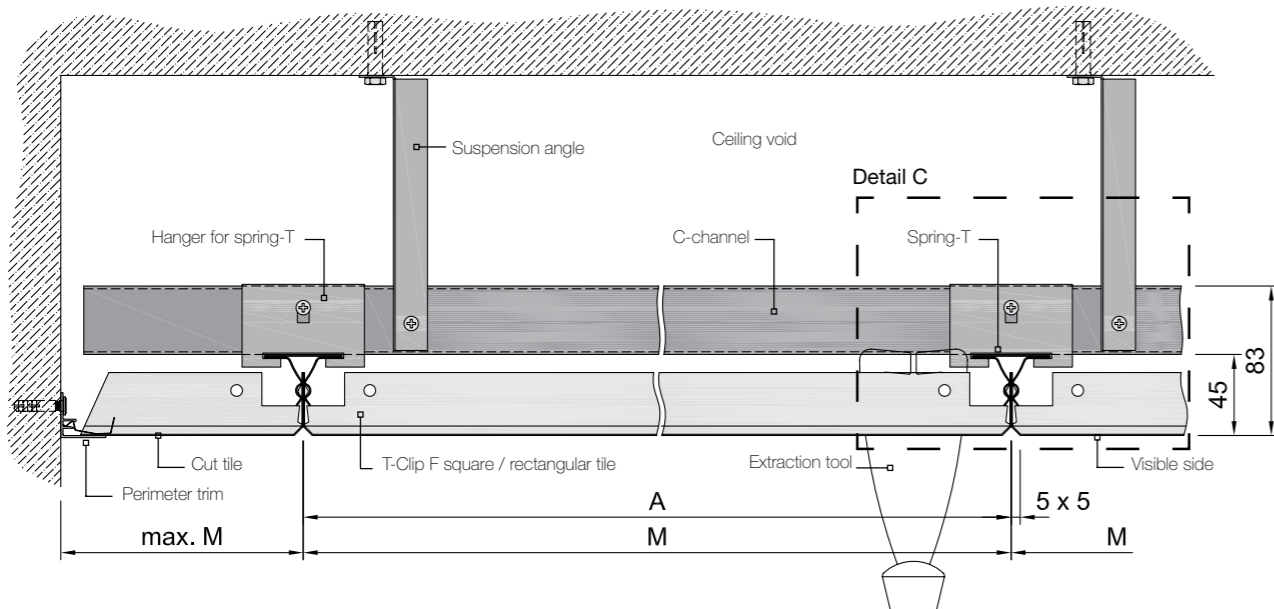
Sustainability		Acoustics						Safe & Healthy				
Recycled content (%)	Light reflectance (%)	α_w up to	Sound absorption class	NRC up to	Dncw / Dnfw (dB) up to	Rw (dB) up to	Fire reaction	Humidity Resistance (%) up to	Cleanability	Bioguard paint option	Scratch resistance	
up to 30	80	0.55(L)	D	0.65	21	10	A2-s2, d0	95	wipeable moist cloth (3)	✓	✓	
up to 30	65	0.70	C	0.70	16	6	A2-s2, d0	95	wipeable moist cloth (3)		✓	
up to 30	70	0.75(L)	C	0.80	18	8	A2-s2, d0	95	wipeable moist cloth (3)		✓	
up to 30	85	0.10(L)	Not Classified	0.10	44	19	A1	95	scrubbable	✓	✓	
up to 30	depends on perforation	0.65	C	0.60	41	20	A2-s1, d0	95	wipeable moist cloth		✓	
up to 30	depends on perforation	1.00	A	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 perforated tiles with fleece. Scrubbable for plain tiles or perforated tiles without fleece.

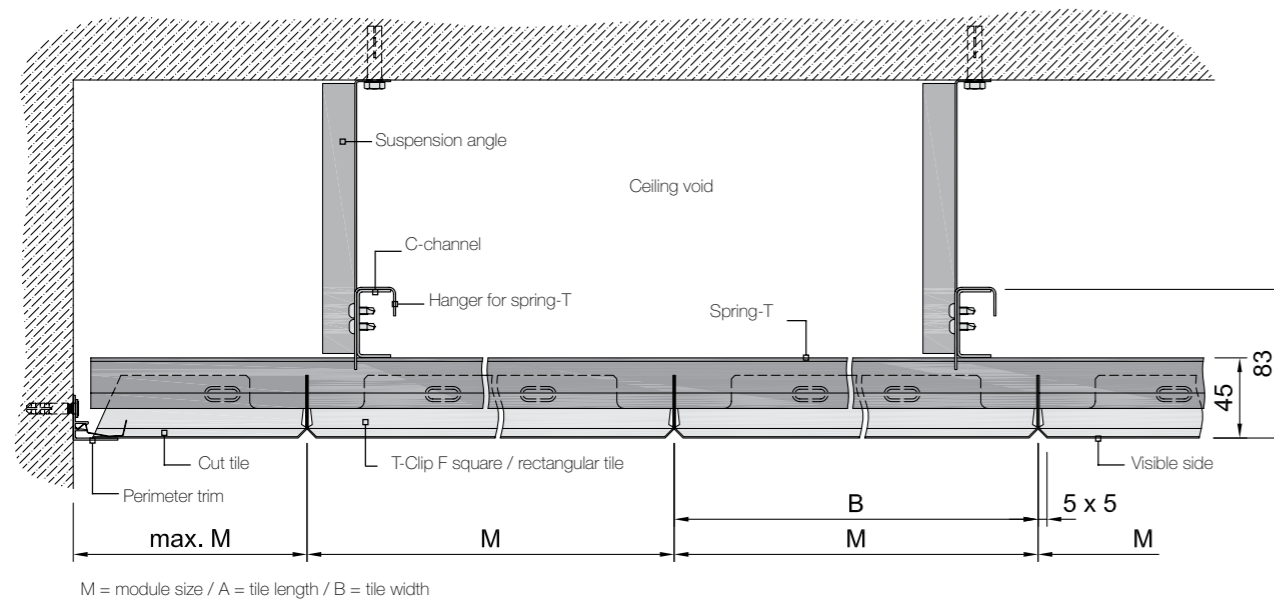


PROJECT: Theological Faculty of Silesian University : ARCHITECT: STABIL SP. Z O.O.

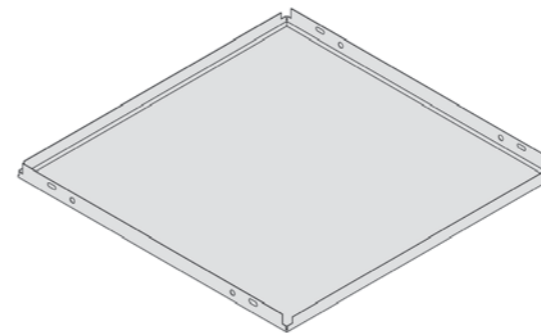
CROSS-SECTION T-CLIP F with C-channel solution



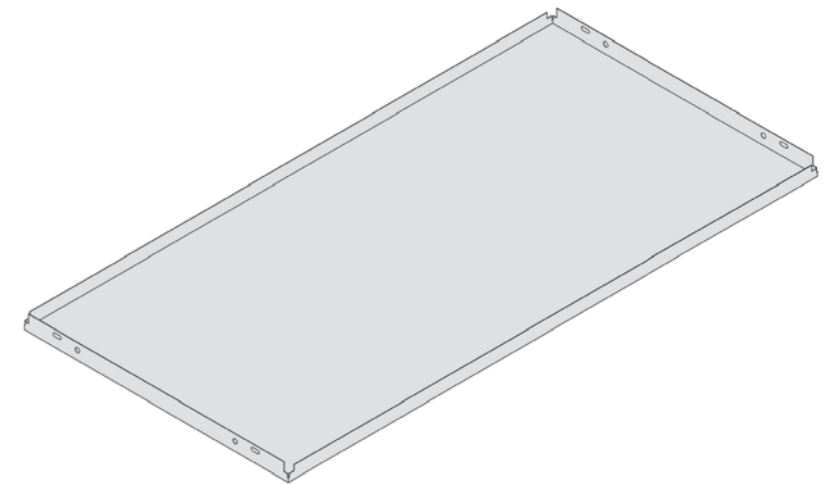
LONGITUDINAL-SECTION T-CLIP F with C-channel solution



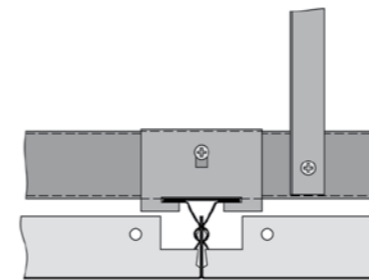
Detail A T-Clip F square tile



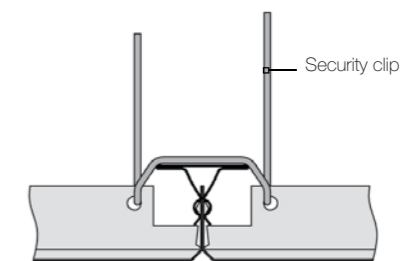
Detail B T-Clip rectangular tile option



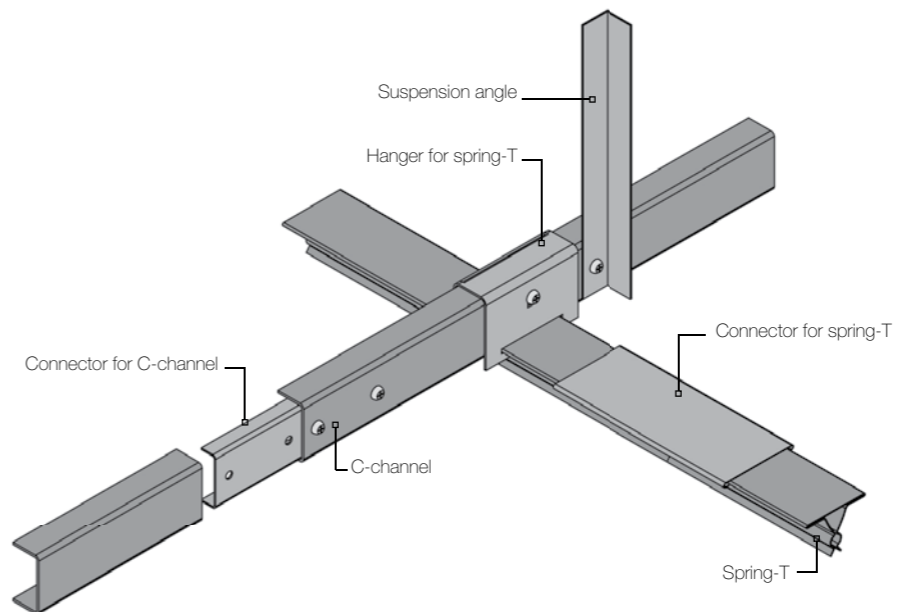
Detail C Square edged option T-Clip



Detail D Security clip option



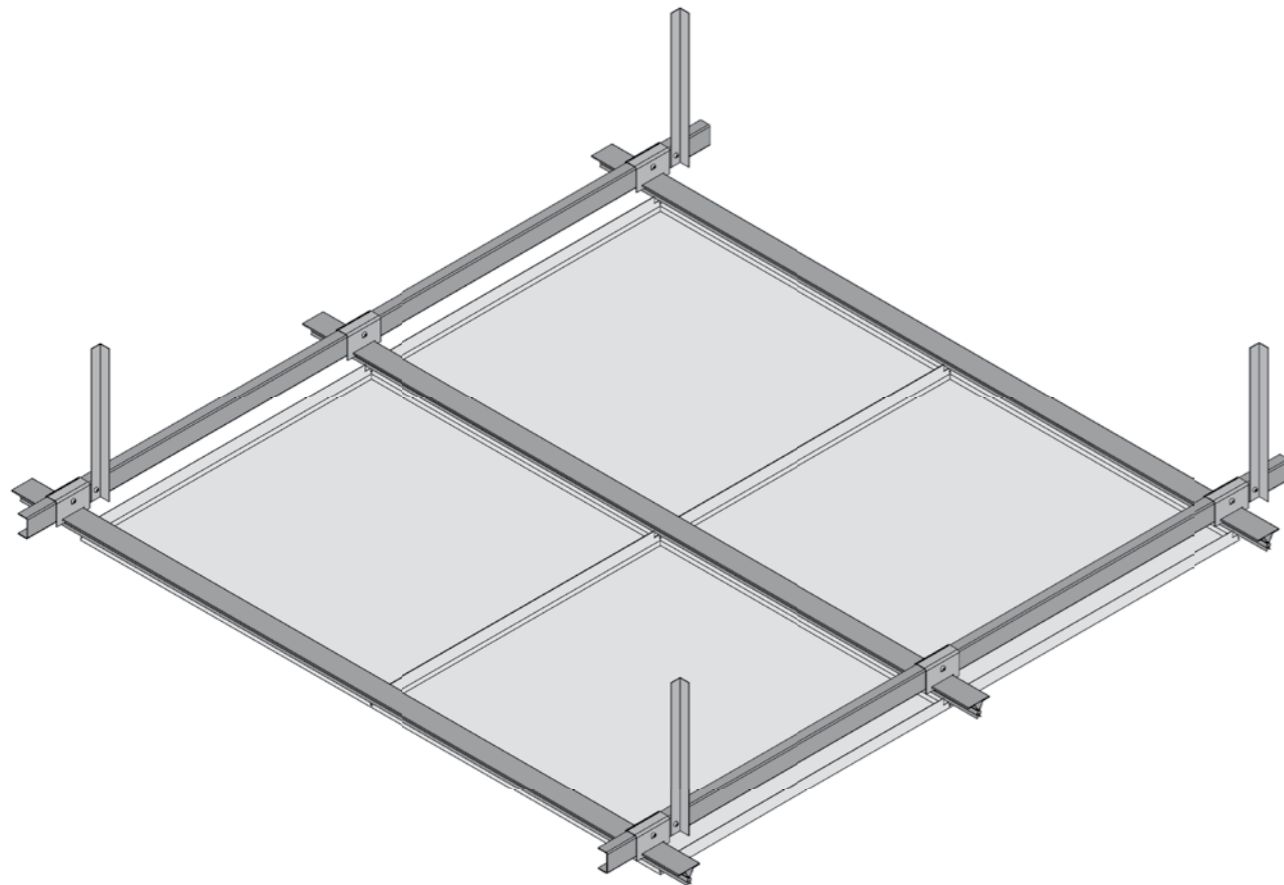
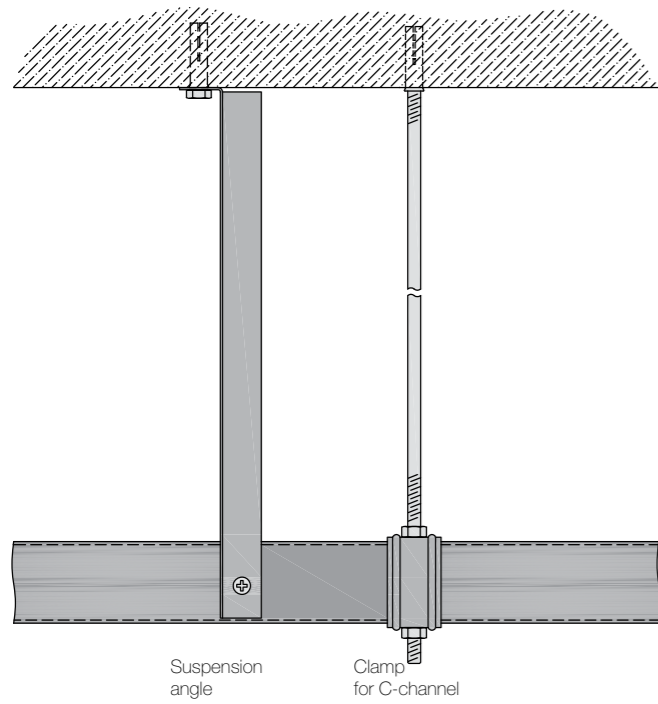
Detail E C-channel solution



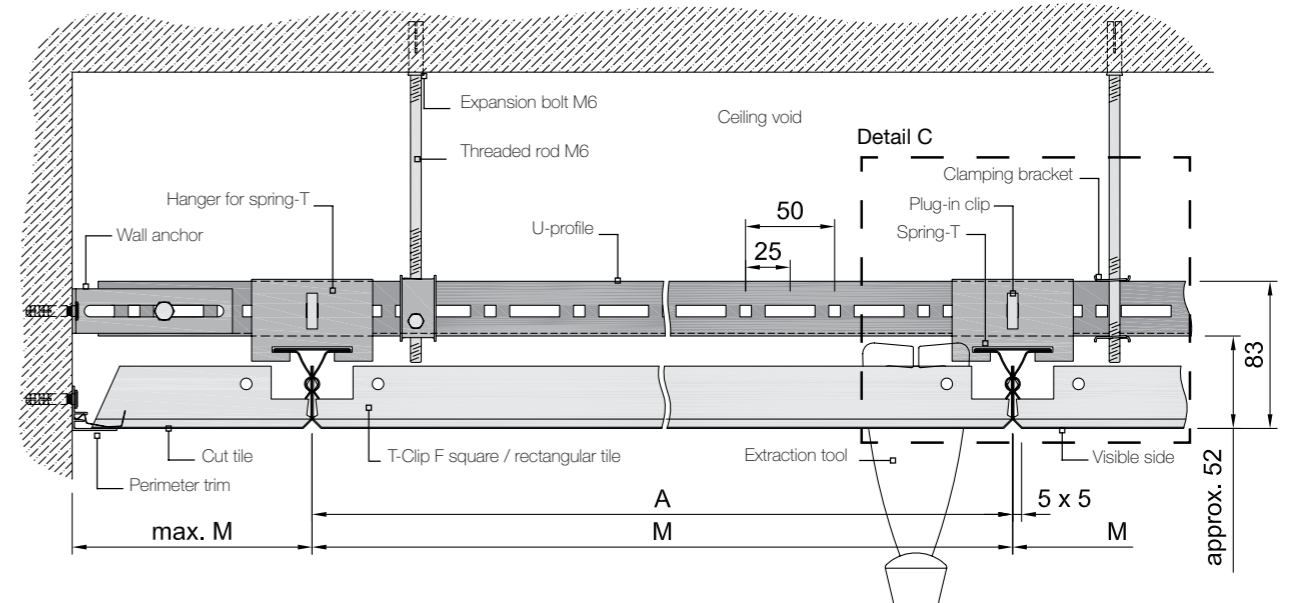
Item No.	Designation
BPM 300100	U-profile
BPM 300119	Connector for U-profile
BPM 300120	Plug-in clip
BPM 300140	Wall anchor
BPM 300121	Clamping bracket
BPM 311111	Expansion bolt M6 x 30 mm

Item No.	Designation
BPM 311099	Threaded rod M6 x 1000 mm
BPC2090A	Hanger for spring-T
BPC 1801G	Spring-T
BPC 1805H	Connector for Spring-T
BPC 1775A	Security clip
BPM 311046	Extraction tool

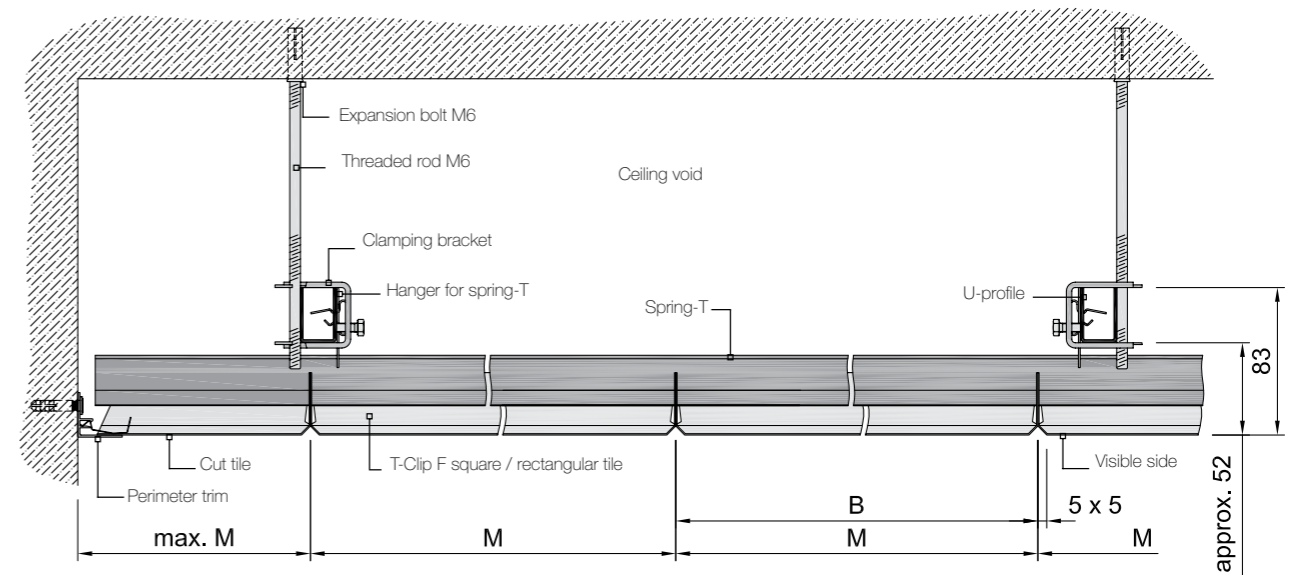
Detail F C-channel suspension methods



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



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

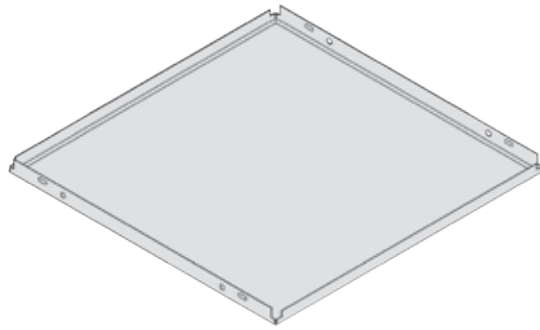


M = module size / A = tile length / B = tile width

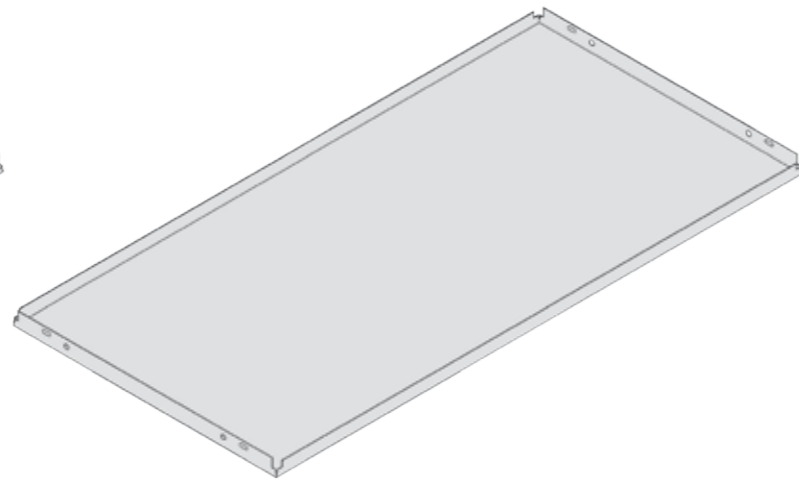
Item No.	Designation
BPM 300100	U-profile
BPM 300119	Connector for U-profile
BPM 300120	Plug-in clip
BPM 300140	Wall anchor
BPM 300121	Clamping bracket
BPM 311111	Expansion bolt M6 x 30 mm

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

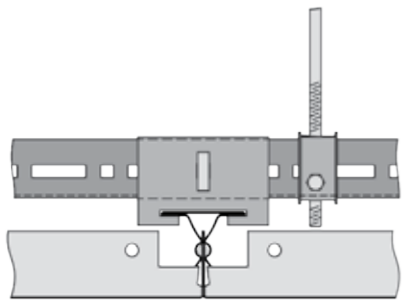
Detail A T-Clip F square tile



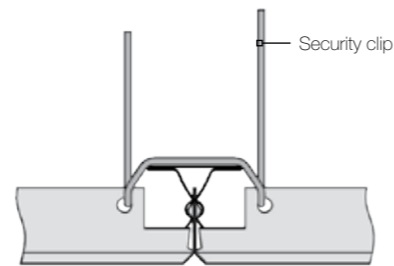
Detail B T-Clip rectangular tile option



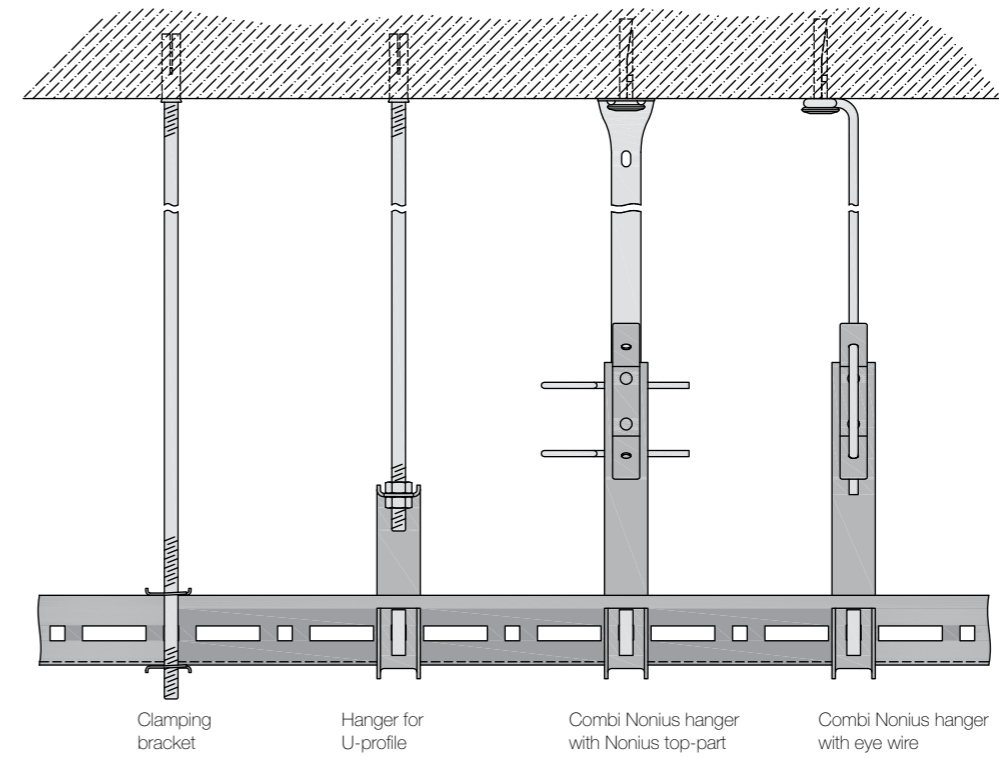
Detail C Square edged option T-Clip



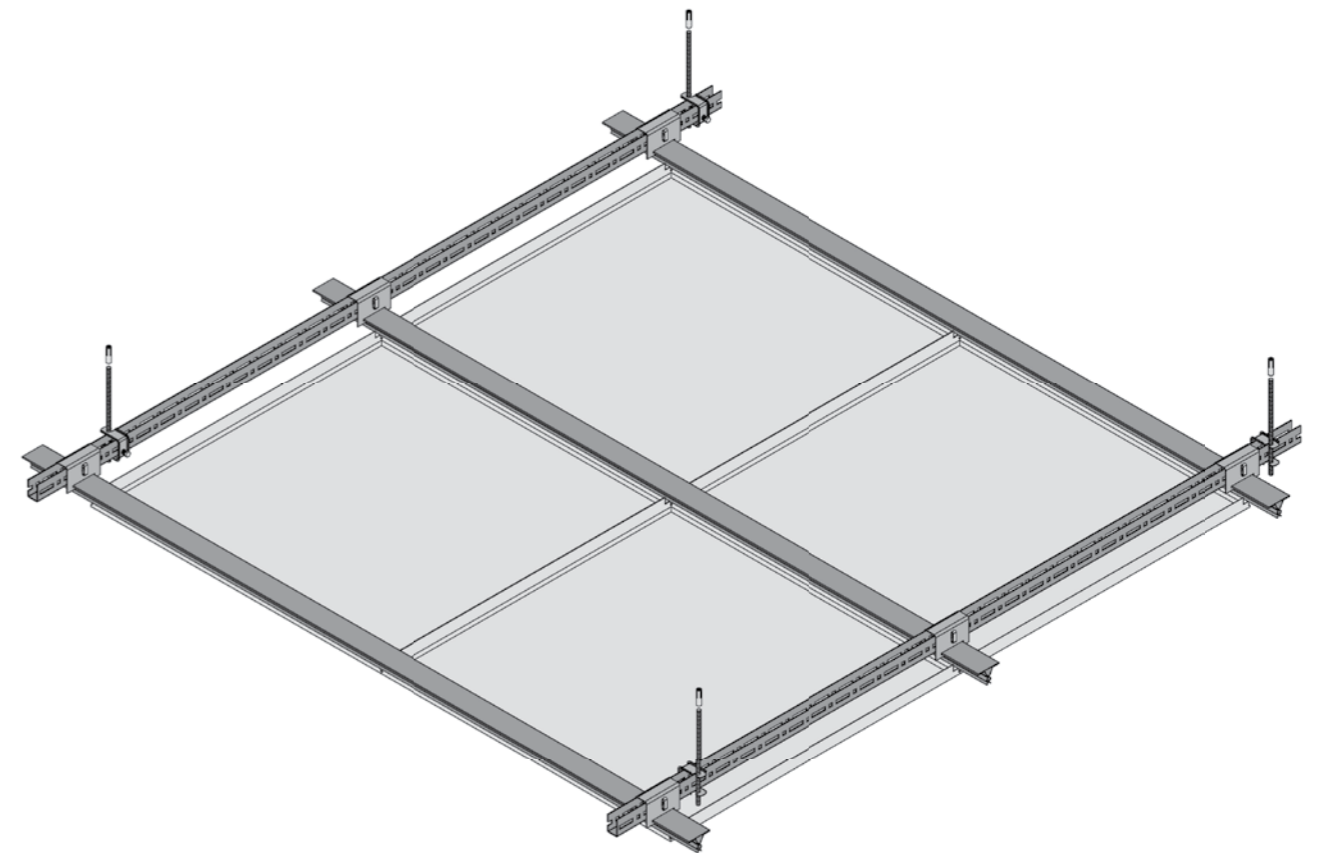
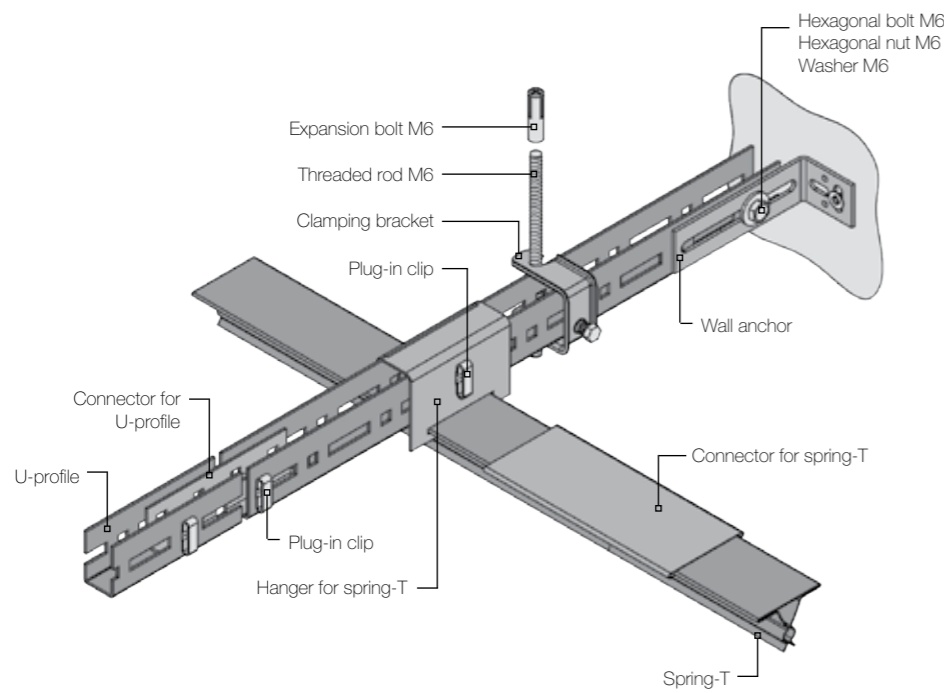
Detail D Security clip option



Detail F U-profile suspension methods



Detail E Grid system





METAL PREMIUM OP19

- Premium OP19 is an acoustic infill solution for standard Armstrong metal ceiling tiles and panels.
- Specially developed 19 mm thick Premium OP19 infills provides a high sound absorption performance, achieving up to Class A.
- Premium OP19 mineral infills are factory bonded into metal tiles and supplied as a complete acoustic unit.
- With Premium OP19, tiles and panels are taken from the carton and fitted directly into the ceiling grid.
- The bonded construction of a metal ceiling tile with a Premium OP19 infill reduces 'pattern staining' associated with incorrectly fitted mineral wool type acoustic pads.

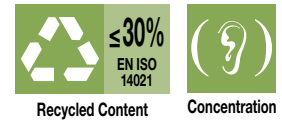


METAL PREMIUM OP19



Wipeable
moist cloth

RH 95%



Recycled Content

Concentration

	STANDARD PERFORATED	MICROPERFORATED	EXTRA MICROPERFORATED
	Rg 2516	Rd 1522	Rg 0701
	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

Items with Premium OP19 infill

S-Clip F	600 x 600 mm	2092 MPOP	2093 MPOP	2770 MPOP
	900 x 300 mm	3709 MPOP	3712 MPOP	3715 MPOP
	1200 x 300 mm	3710 MPOP	3713 MPOP	3716 MPOP
	1500 x 300 mm	3711 MPOP	3714 MPOP	3717 MPOP
T-Clip F	600 x 600 mm	9308 MPOP	9337 MPOP	2744 MPOP
	1200 x 300 mm	9312 MPOP	9430 MPOP	2748 MPOP
	1200 x 600 mm	4315 MPOP	4316 MPOP	2750 MPOP
	1500 x 300 mm	9313 MPOP	9431 MPOP	2749 MPOP
Board	600 x 600 mm	9335 MPOP	9427 MPOP	2771 MPOP
Axal Vector	600 x 600 mm	9419 MPOP	9420 MPOP	2118 MPOP
MicroLook 8	600 x 600 mm	9339 MPOP	9324 MPOP	2184 MPOP
	1200 x 300 mm	3720 MPOP	3722 MPOP	3724 MPOP
	1200 x 600 mm	3721 MPOP	3723 MPOP	3725 MPOP
MicroLook 16	600 x 600 mm	4701 MPOP	4702 MPOP	2787 MPOP
Tegular 2	600 x 600 mm	9443 MPOP	9444 MPOP	2786 MPOP
Tegular 8	600 x 600 mm	9684 MPOP	9685 MPOP	2783 MPOP
	1200 x 300 mm	3728 MPOP	3730 MPOP	3732 MPOP
	1200 x 600 mm	3729 MPOP	3731 MPOP	3733 MPOP
Tegular 16	600 x 600 mm	9681 MPOP	9682 MPOP	2779 MPOP

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

	Sound Absorption	Perforation	Cert #	α_w	Class	NRC	125	250	500	1000	2000	4000	Hz	
		Rg 0701	6714a	0,70	C	0.75	0.50	0.70	0.80	0.75	0.70	0.50		α_p
		Rd 1522	6713a	1,00	A	0.90	0.50	0.80	0.95	0.95	1.00	1.00		
		Rg 2516	6715a	0,95	A	0.90	0.50	0.80	0.95	0.90	1.00	0.95		

	Sound Reduction R_w	Perforation	Cert #	R_w
		Rg 0701	6725a	15
		Rd 1522	6724a	12
		Rg 2516	6726a	13

	Sound Attenuation D_{nfw}	Perforation	Cert #	D_{nfw}
		Rg 0701	6720a	31
		Rd 1522	6719a	27
		Rg 2516	6721a	28

A2-s2, d0



EN 13501-1

Rg 0701: 80%
Rg 2516: 70%
Rd 1522: 65%



15 YEAR
guarantee



7 - 8 kg/m²



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