



Exposed,  
seismic resistant

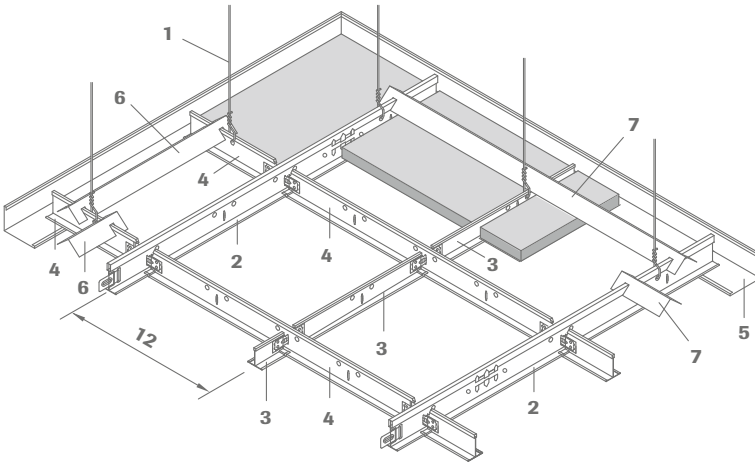
OWAlifetime collection

**OWA**

## System S 3 cliq | Exposed, seismic resistant | ASTM E 580/E 580M-10a



The system fulfills the requirements according to ASTM E 580MN-10a, "Heavy Duty", according to ASTM C 635 and all requirements according to EN 13964.

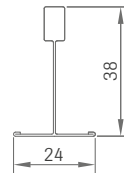


- 1 Stretched hanger wire, tied at least 3 times, thickness > 2.0 mm, by customer
- 2 Main tee cliq-24-MR, slots at 100 mm
- 3 Cross tee cliq-24-CT, length 600 mm, 625 mm or 2'
- 4 Cross tee cliq-24-CT, length 1200 mm, 1250 mm or 4'
- 5 Wall angle, for example no. 51/1
- 6 Space bar no. 43, short
- 7 Space bar no. 43, long
- 8 Screw or pop by customer
- 9 Strut no. 6570 or 2 CD-Profiles 60/35 - 0.5 mm by customer
- 10 Seismic joint coupling no. sjc01 for cliq-24-MR  
Seismic joint coupling no. sjc02 for cliq-24-CT short
- 11 Wall perimeter no. 51/25, 25/25 - 1 mm or similar
- 12 Modul distance

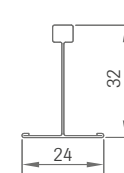
The grid system S 3 cliq fulfills the essential requirements according to ASTM E 580M-10a. The grid system is tested according to ASTM C 635-95 and EN 13964 by a notified body and ISO 17025 certified Lab MPA Braunschweig, Germany). The tests for the pull out force of the cross tees were carried out with 1.26 kN (approx. 126 kg) tension. This system achieved the highest load bearing classification according to ASTM C 635 as "Heavy Duty" with more than 16.0 lb/linear feet (23.8 kg/m) for the main tees. These are the essential requirements according to the seismic design categories D, E and F defined in ASTM E 580M-10a.

### Section dimensions:

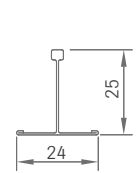
Main tee  
cliq-24-MR



Cross tee  
cliq-24-CT long



Cross tee  
cliq-24-CT short



## Technical data | mineral tiles

### Dimensions

600 x 600 mm, 625 x 625 mm, 2' x 2', 1200 x 600 mm, 1250 x 625 mm, 4' x 2'

### Edge details

3

### Thickness

Approx. 15 mm and 20 mm (OWAcoustic premium)

### Reaction to fire

A2-s1,d0 in accordance with EN 13501-1  
Class A in accordance with ASTM E 1264 | class 1 in accordance with ASTM E 84

### Metal suspensions

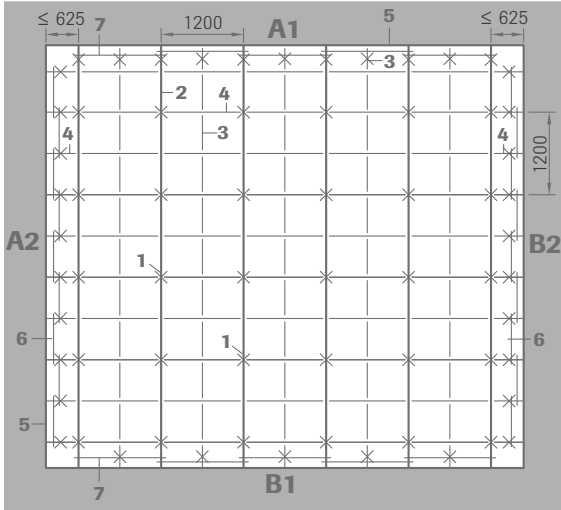
All profiles are zinc galvanized and exposed faces are white painted. For further details please consult our OWAlifetime collection price list.

### Suspension depth

75 - 100 mm (from underside of soffit). For ease of panel removal 120 mm is recommended.

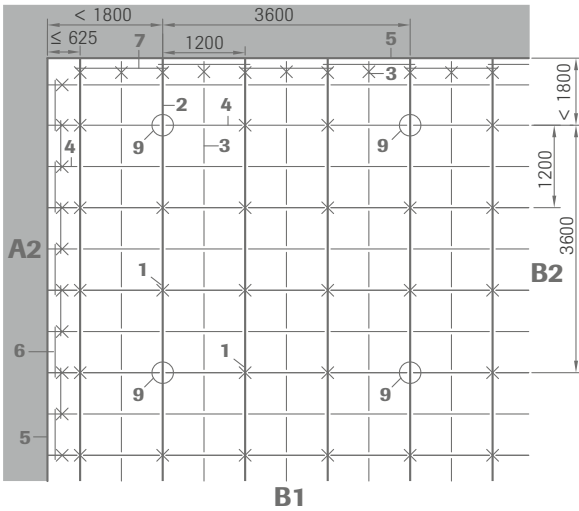
**Installation examples in accordance with ASTM E 580/E 580M-10a (also for module 625 mm and 2’):**

**Areas ≤ 93 m<sup>2</sup>**



The hanger fixings must be installed according to ASTM E 580M-10a, paragraph 5.2.7.2 and 5.2.7.3.

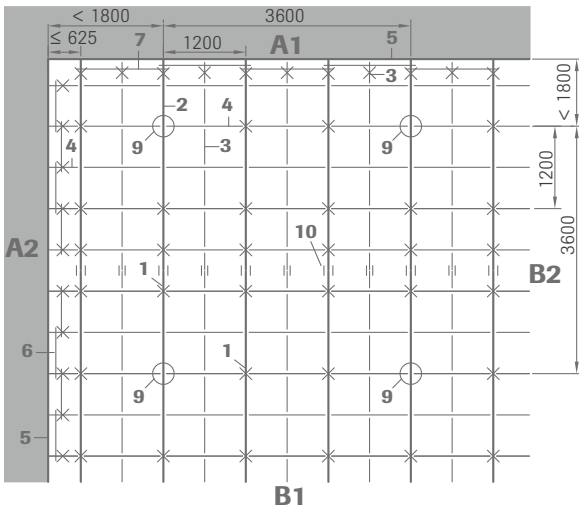
**Areas > 93 m<sup>2</sup> till ≤ 232 m<sup>2</sup>**



**Additional tasks for areas > 93 m<sup>2</sup>**

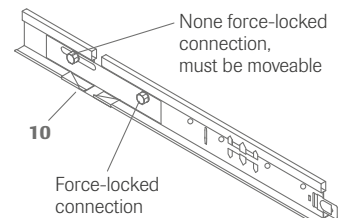
- Lateral force bracings are required for all ceiling **areas greater than 1000 ft<sup>2</sup>** (approx. 93 m<sup>2</sup>).  
max. distance:
  - from the wall 1.8 m
  - centres of horizontal restraint points 3.6 m
- Four 12-gauge (> 2.0 mm) wires in all 4 directions secured to the main runner. Angle should not exceed 45° from the plane of the ceiling. A strut must be installed in this area (for example section no. 6570, see page 8).

**Areas > 232 m<sup>2</sup>**



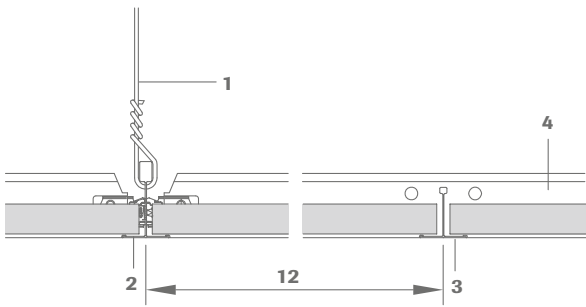
**Additional tasks for areas > 232 m<sup>2</sup>**

- expansion joints are necessary
- separate seismic joints for each type of tees (MT, CT)

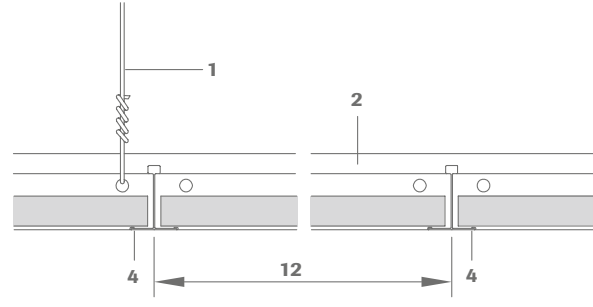


System S 3 cliq | Exposed, seismic resistant | ASTM E 580/E 580M-10a

**Cross-section:**



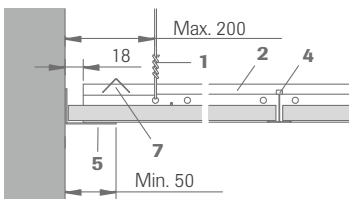
**Section:**



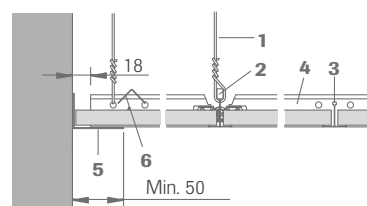
**Wall perimeter:**

For other examples of wall perimeters and installation see OWA-Installation guide no. 9801 E and ASTM E 580/E 580M-10a.

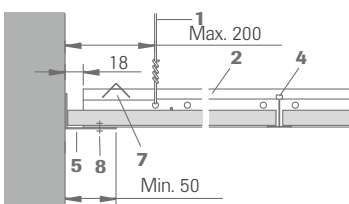
**Wall perimeter A1**



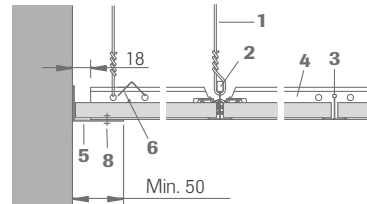
**Wall perimeter A2**



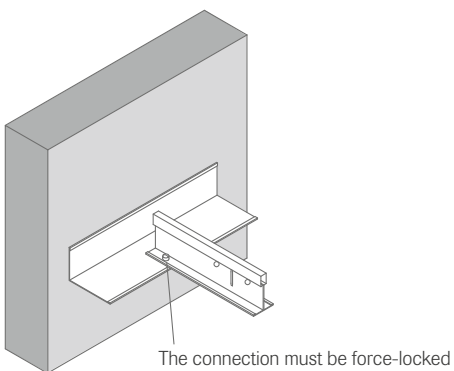
**Wall perimeter B1**



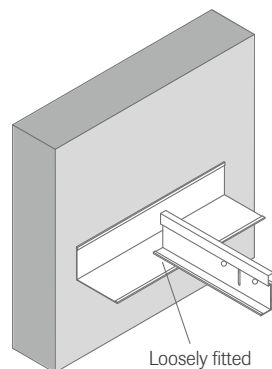
**Wall perimeter B2**



**Installation after connecting B1/B2**

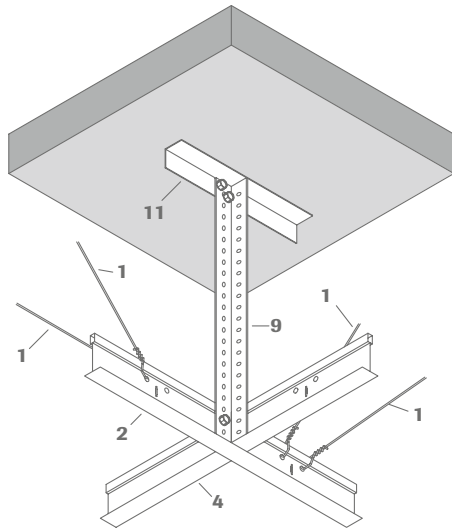


**Installation after connecting A1/A2**

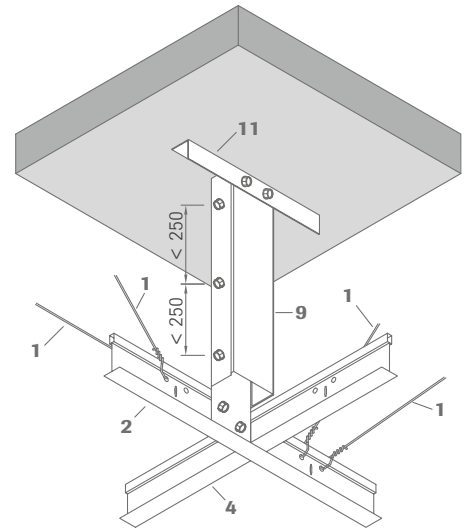


### Lateral force bracing for horizontal restraint according to ASTM E 580/E 580M-10a:

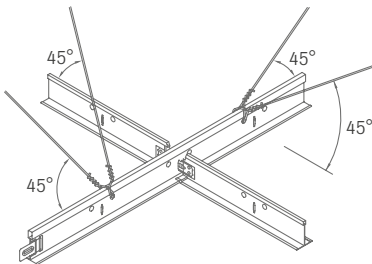
Type 1:



Type 2:

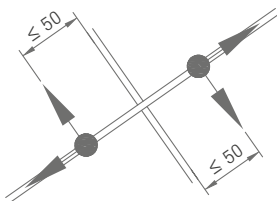


### Lateral force bracing with stretched hanger wire according to ASTM E 580/E 580M-10a for Type 1 and 2:



The force-locked connection of the CD-Profiles must be  $< 250$  mm. To connect the profiles with the grid-system the lower end has to be notched.

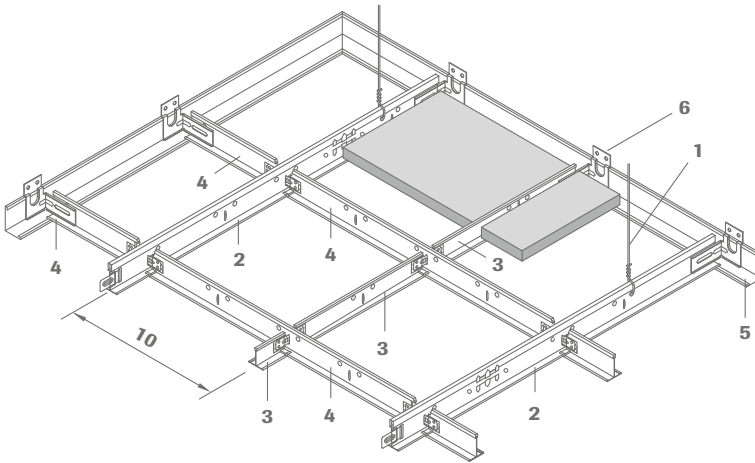
Top view



## System S 3 cliq | Exposed, seismic resistant | CISCA recommendations



The system can be installed as per CISCA recommendations

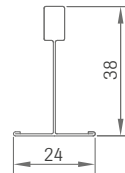


- 1 Stretched hanger wire, tied at least 3 times, thickness > 2.0 mm, by customer
- 2 Main tee cliq-24-MR, slots at 100 mm
- 3 Cross tee cliq-24-CT, length 600 mm, 625 mm or 2'
- 4 Cross tee cliq-24-CT, length 1200 mm, 1250 mm or 4'
- 5 Wall angle, for example no. 51/25
- 6 Seismic perimeter clip no. spc02
- 7 Strut no. 6570 or 2 CD-Profiles 60/35 – 0.5 mm by customer
- 8 Seismic joint coupling no. sjc01 for cliq-24-MR and cliq-24-CT long  
Seismic joint coupling no. sjc02 for cliq-24-CT short
- 9 Wall perimeter no. 51/25, 25/25 – 1 mm or similar
- 10 Modul distance

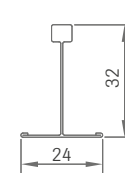
The grid system S 3 cliq fulfills the essential requirements according to ASTM E 580M-10a. The grid system is tested according to ASTM C 635-95 and EN 13964 by a notified body and ISO 17025 certified Lab (MPA Braunschweig, Germany). The tests for the pull out force of the cross tees were carried out with 1.26 kN (approx. 126 kg) tension. This system achieved the highest load bearing classification according to ASTM C 635 as "Heavy Duty" with more than 16.0 lb/linear feet (23.8 kg/m) for the main tees. These are the essential requirements according to the seismic design categories D, E and F defined in ASTM E 580M-10a.

### Section dimensions:

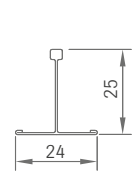
Main tee  
cliq-24-MR



Cross tee  
cliq-24-CT long



Cross tee  
cliq-24-CT short



## Technical data | mineral tiles

### Dimensions

600 x 600 mm, 625 x 625 mm, 2' x 2', 1200 x 600 mm, 1250 x 625 mm, 4' x 2'

### Edge details

3

### Thickness

Approx. 15 mm and 20 mm (OWAcoustic premium)

### Reaction to fire

A2-s1,d0 in accordance with EN 13501-1  
Class A in accordance with ASTM E 1264

### Metal suspensions

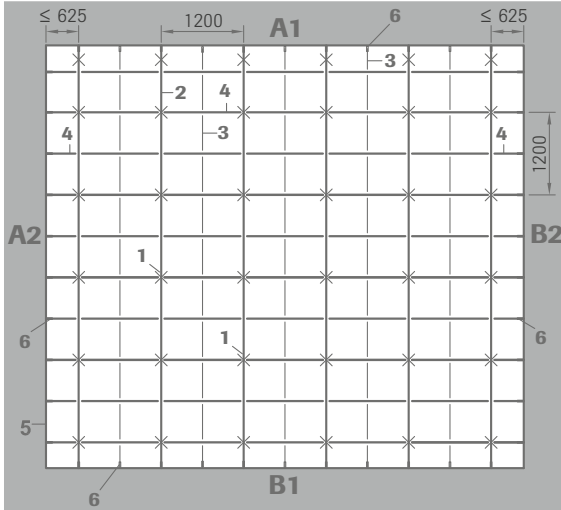
All profiles are zinc galvanized and exposed faces are white painted. For further details please consult our OWAlifetime collection price list.

### Suspension depth

75 - 100 mm (from underside of soffit). For ease of panel removal 120 mm is recommended.

## Installation examples in accordance with CISCA recommendations:

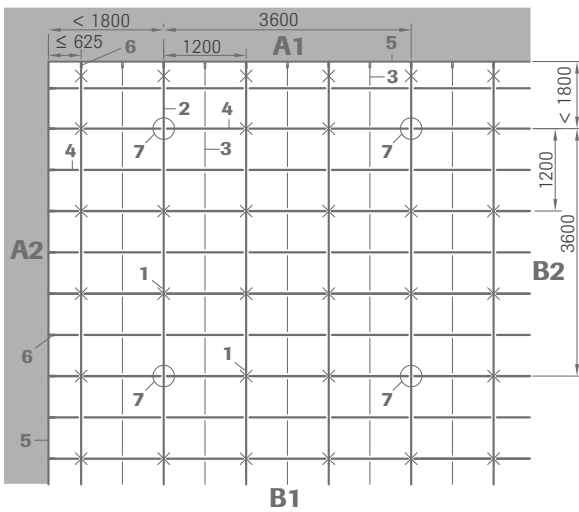
### Areas $\leq 93 \text{ m}^2$



The hanger fixings must be installed as per CISCA recommendations.

All main tees and cross tees must be fixed with wall clip no. spc02.

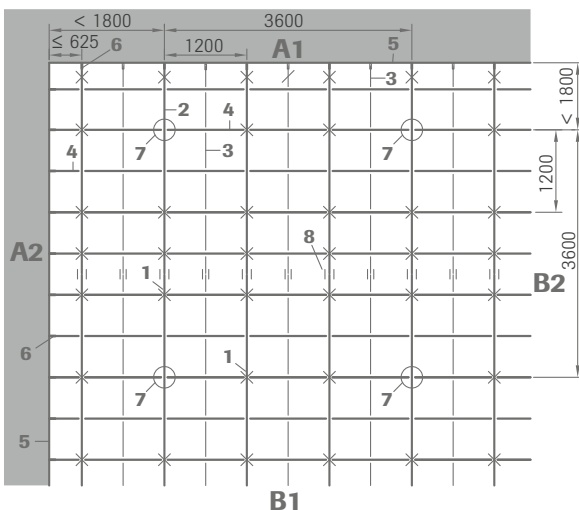
### Areas $> 93 \text{ m}^2$ till $\leq 232 \text{ m}^2$



#### Additional tasks for areas $> 93 \text{ m}^2$

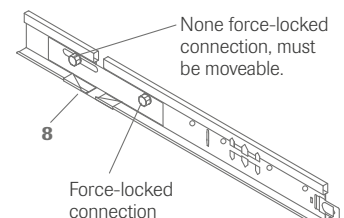
- Lateral force bracings are required for all ceiling **areas greater than 1000 ft<sup>2</sup>** (approx. 93 m<sup>2</sup>).  
max. distance:
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  - centres of horizontal restraint points 3.6 m
- Four 12-gauge ( $> 2.0 \text{ mm}$ ) wires in all 4 directions secured to the main runner. Angle should not exceed 45° from the plane of the ceiling. A strut must be installed in this area (for example section no. 6570, see page 8).

### Areas $> 232 \text{ m}^2$



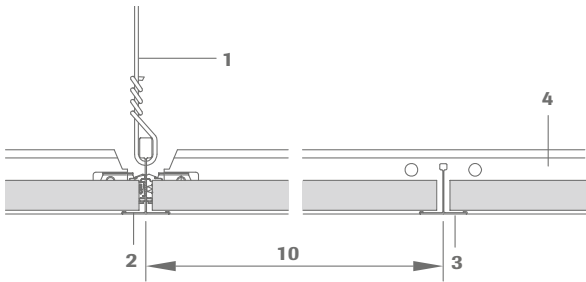
#### Additional tasks for areas $> 232 \text{ m}^2$

- expansion joints are necessary.
- separate seismic joints for each type of tees (MT, CT)

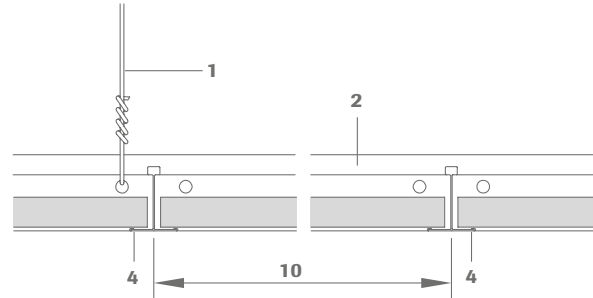


**System S 3 cliq | Exposed, seismic resistant | CISCA**

**Cross-section:**



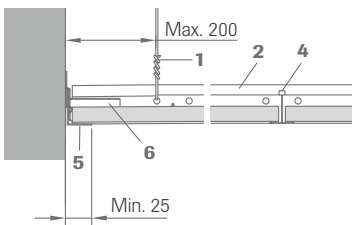
**Section:**



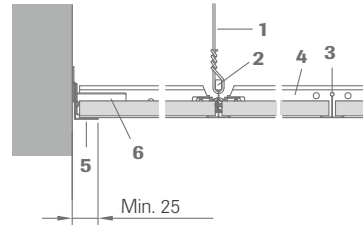
**Wall perimeter:**

For other examples of wall perimeters and installation see OWA-Installation guide no. 9801 E and CISCA recommendation

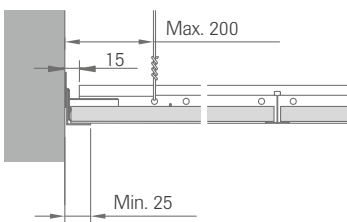
**Wall perimeter A1**



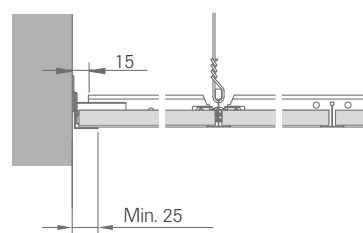
**Wall perimeter A2**



**Wall perimeter B1**  
movable screw connection

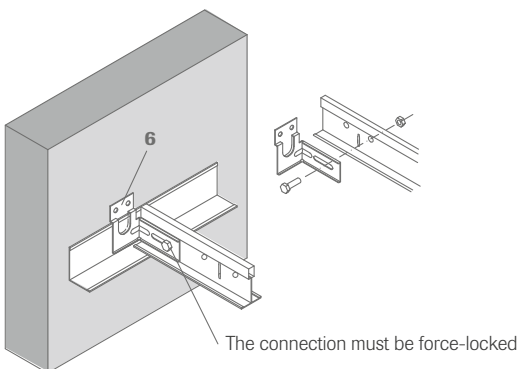


**Wall perimeter B2**  
movable screw connection

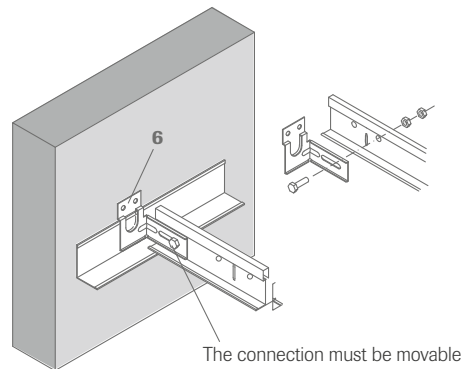


**Installation of the seismic perimeter clip no. spc02:**

**Connection A1/2**



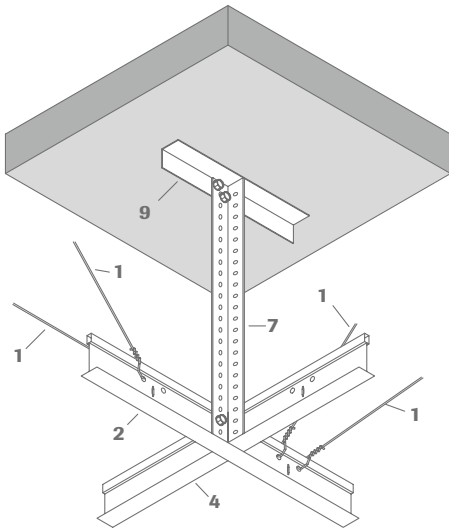
**Connection B1/2**



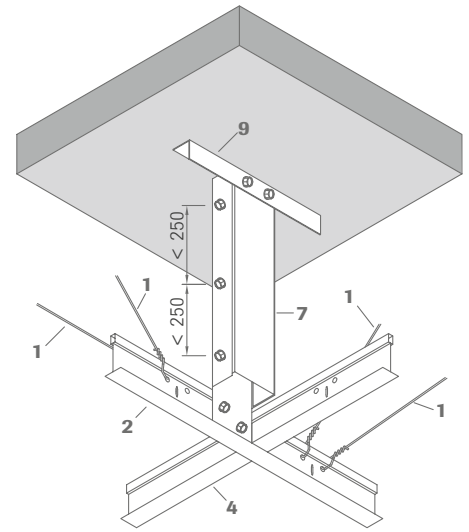


### Lateral force bracing for horizontal restraint according to ASTM E 580/E 580M-10a:

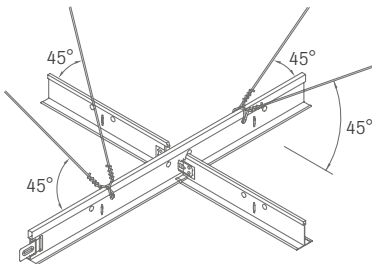
Type 1:



Type 2:

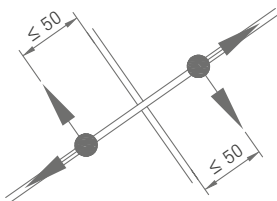


### Lateral force bracing with stretched hanger wire according to ASTM E 580/E 580M-10a for Type 1 and 2:



The force-locked connection of the CD-Profiles must be  $< 250$  mm. To connect the profiles with the grid-system the lower end has to be notched.

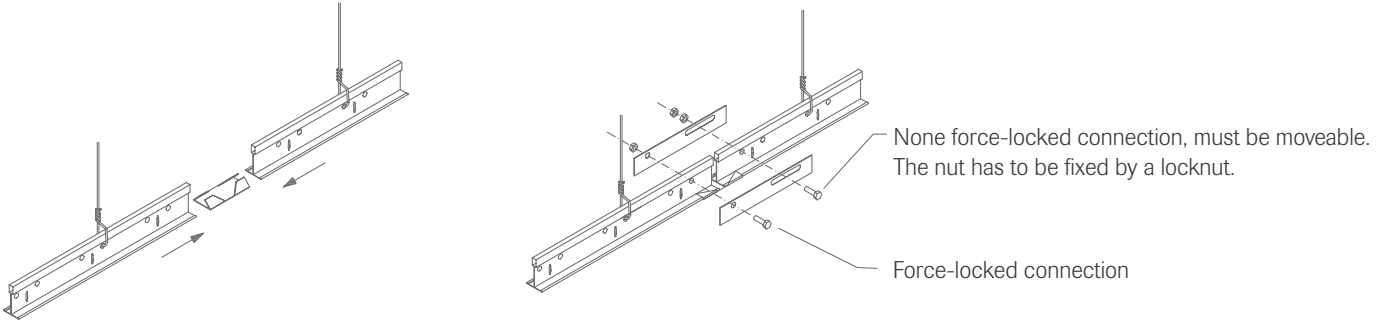
Top view



## System S 3 cliq | Exposed, seismic resistant

### System-related accessories:

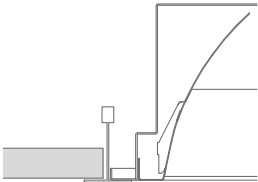
8 Seismic joint coupling no. sjc01 and sjc02 (consist of 3 pieces and small components). This but joint has to be suspended on both sides.



6 Seismic perimeter clip no. spc02, for locking of the main runner and cross tee in the wall area

### Light fixtures:

OWA can supply compatible light fixtures for this system.



For details of performance, installation and fire resistance please see OWA-brochure no. 9630 e and OWA-Installation Guide no. 9801 e

### Installation:

All integrated services should be secured separately. Installation should be carried out in accordance with the information contained in OWA-Installation guide 801 and ASTM E 580M-10a.

The test report of MPA Braunschweig shows the tests of the loadbearing capacity and the seismic requirements according to ASTM E 580M-10a



Institute for Building Materials,  
Concrete Construction  
and Fire Protection | Braunschweig Civil  
Engineering Materials  
Testing Institute



## Testreport

-Translation-

Document No.: (1101/066/17) – Hir of 2017-08-29

Customer: Odenwald Faserplattenwerk GmbH  
Dr.-Freundt-Straße 3  
63916 Amorbach

Factory: Odenwald Faserplattenwerk GmbH  
Gewerbepark Hüttenwerk  
Unterer Hammer 3-5  
64720 Michelstadt  
Lini 2

Order Date: 2017-08-28

Order Ref.: Mr Overbeck

Order received: 2017-08-28

Subject: Suspended Ceilings – static tests on connections

Test basis: ASTM E 580/E 580M-09

Samples received: 2017-08-09

Sampling: By client

Sample identification: **OWAconstruct Nr. cliq-24-MR;**  
**OWAconstruct Nr. cliq-24-CT**

Test date: 2017-08-25

This Testreport covers 4 pages, incl. cover sheet, and 3 annexes.



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Beethovenstraße 52  
D-38106 Braunschweig

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info@mpa.tu-bs.de  
www.mpa.tu-bs.de

Norddeutsche LB Hannover  
IBAN: DE58 2505 0000 0106 0200 50  
BIC: NOLADE2H  
VAT ID No.: DE183500654  
Tax Reg. No.: 14/201/22859

Notified body (0761-CPR) -  
Approved as a civil engineering testing,  
inspection and certifying body as well as  
notified as a civil engineering testing and  
certifying body.

**Material requirements per m<sup>2</sup>** (approximations):  
dimensions in mm

No.	Description	ASTM E 580/E 580M-10a	CISCA recommendations
		600 x 600*	600 x 600*
cliq-24-MR	Main tee	0,83 m	0,83 m
cliq-24-CT	Cross tee short	0,83 m	0,83 m
cliq-24-CT	Cross tee long	1,66 m	1,66 m
	Stretched hanger wire (vertical suspension)	0,7 pce	0,7 pce
6570	Strut or CD profile	0,08 pce	0,08 pce
51/1	Wall angle	Depending on room size and shape	-
51/25	Wall angle	-	Depending on room size and shape
43	Space bar	Depending on room size and shape	-
spc02	Perimeter clip	-	Depending on room size and shape
sjc01	Seismic joint coupling	Depending on room size and shape	Depending on room size and shape
sjc02	Seismic joint coupling	Depending on room size and shape	Depending on room size and shape

\* Other dimensions see brochure S 3 cliq

Weight per m <sup>2</sup> :	600 x 600
Suspension system approx.	1.25 kg/m <sup>2</sup>
Tiles 15 mm, approx.	4.5 kg/m <sup>2</sup>

**System description: System S 3 cliq – seismic resistant**

**Quality requirements for mineral tiles:**

OWAacoustic mineral tiles firmly bound with a primer coat on both sides. The tile is free from asbestos. No formaldehyde is added in the manufacturing process of the mineral tiles. The mineral wool used for the manufacture of the tile is bio-soluble. The criteria for non-classification as a carcinogenic substance in accordance with the Chemicals Prohibition Ordinance (Section 1 Appendix, Paragraph 23 biopersistent fibres) are met and guaranteed by the ‚RAL seal of approval for mineral wool‘. Verification of fitness for use according to EU CPR: CE marking and Declaration of Performance (DoP).

Mineral tiles accordance with EN 13964 and DIN 18177: Air permeability class PM 1 | Formaldehyde class FH 1 | Emission of VOC TVOC 1

**Installation** should be carried out in accordance with the information contained in system leaflet S 3 cliq seismic resistant and OWA-Installation Guide no. 9801 e. All components are CE labelled.

**Component list ASTM E 580/E 580M-10a:**

OWAconstruct cliq-24-MR main tee  
OWAconstruct cliq-24-CT cross tee short  
OWAconstruct cliq-24-CT cross tee long  
OWAconstruct wall angle no. 51/1  
OWAconstruct space bar no. 43  
OWAconstruct strut no. 6570 or CD profile  
OWAconstruct seismic joint coupling no. sjc01 or no. sjc02

**Component list CISCA-recommendations:**

OWAconstruct cliq-24-MR main tee  
OWAconstruct cliq-24-CT cross tee short  
OWAconstruct cliq-24-CT cross tee long  
OWAconstruct wall angle no. 51/25  
OWAconstruct strut no. 6570 or CD profile  
OWAconstruct wall clip no. spc02  
OWAconstruct seismic joint coupling no. sjc01 or no. sjc02

**Product warranties**

The information provided in this leaflet is based on the standards and data available at the time of publication. Any performance, warranties or guarantees provided, expressed or implied, are subject to the exclusive use of OWA components and the installation of those components in accordance with our recommendations. Failure to adhere to these conditions will result in the invalidation of any performance claims, warranties or guarantees and rejection of any liability. OWA reserves the right to make any technical improvements to the products, systems or services without prior notice. **All goods and services are supplied in accordance with our current Terms and Conditions of Sale.** Errors excepted!



The information in this brochure is up-to-date at the time of publication. Errors and mistakes excepted. Please contact our competence team OWAconsult for specific advice. Our experts will be happy to answer your questions under the following contact details: tel: +49 9373 201-444 or e-mail: info@owaconsult.de

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www.owa-ceilings.com

Brochure  
**S 3 cliq seismic resistant e**  
052200