DESCOR®

Technical assembly instructions

Textiles for architecture

PONGS®

DESCOR®

Walls, Ceilings & Panels

Content

Introduction

Welcome to the technical world of PONGS® walls, ceilings & panels

The application, the processing, the installation, the accessories: Within these technical assembly instructions you will simply find the right answer to all technical detail questions around the versatile, but nevertheless easy-to-process DESCOR® system.

PONGS® develops and manufactures decorative as well as acoustic textile stretch systems for walls, ceilings and panels. Universally applicable in both, new buildings and for renovations, the DESCOR® system is the ideal and innovative solution for coverings walls and ceilings. The installation of decorative elements and technical components such as lamps, spots, exhaust air systems and air conditioning units is easy to implement.

All advantages at a glance

DESCOR® is installed at room temperature and does not require additional heating.

DESCOR® is an all-rounder: homogeneously smooth and easy to install, clean and flexibly replaced.

DESCOR® is a system tried and tested that can be applied from the largest construction project to the biggest cruise ship.

DESCOR® is digitally printable up to a width of 505 cm with utmost resolution - limitless freedom for your ideas.

DESCOR® complies with the CE and VOC standards and achieves the highest emission requirement of the class: A+. The newly installed product smells like a freshly painted room for a few days.

DESCOR® cleaning

It is not uncommon for surfaces and walls to get dirty from time to time. DESCOR® is just as easy to clean as it is to install.

The following procedure is recommended:

1. clothes brush
In most cases, light soiling can be removed by concentric movements using light pressure with a clothes brush.

2. Microfiber cloth
Impurities are best removed with a damp microfiber cloth.

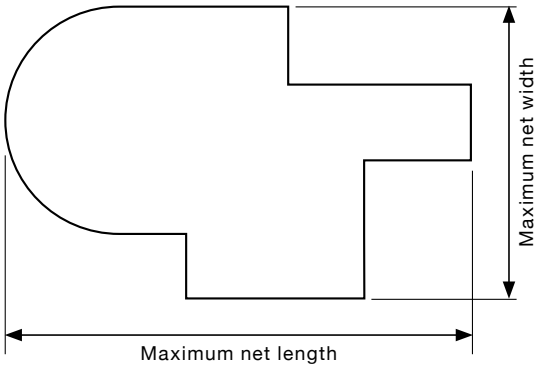
3. Eraser
Some drugstores also offer corresponding „dirt erasers“. So you can remove a variety of possible contamination.

Allergens and microorganisms

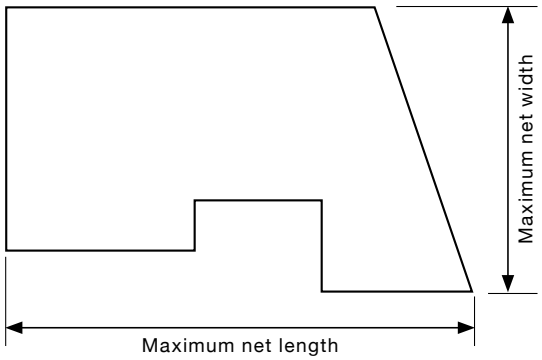
Due to its extremely fine textile structure, the material is not susceptible to a multitude of pollen and micro particles. In addition, an anti fungal coating provides a surface on which fungi can not replicate.

1.1 The dimensions

The maximum width and length of the wall or ceiling area are required/ measured.
It is not necessary to measure the diagonals, intermediate dimensions and angles.



Sketch S01 – measurement example 1



Sketch S02 – measurement example 2

Maximum measured value (in m)	Assembly allowance required per side (in m)
< 3,00	0,10
3,01 bis 5,00	0,15
5,01 bis 6,00	0,20
6,01 bis 10,00	0,30
> 10	> 0,50

Table T01 – assembly reserve

Gross width in m	Net width in m
3,20	3,10
3,60	3,50
4,20	4,10
4,60	4,50
5,20	5,05

Table T02 - standard widths of DESCOR® PREMIUM on reels

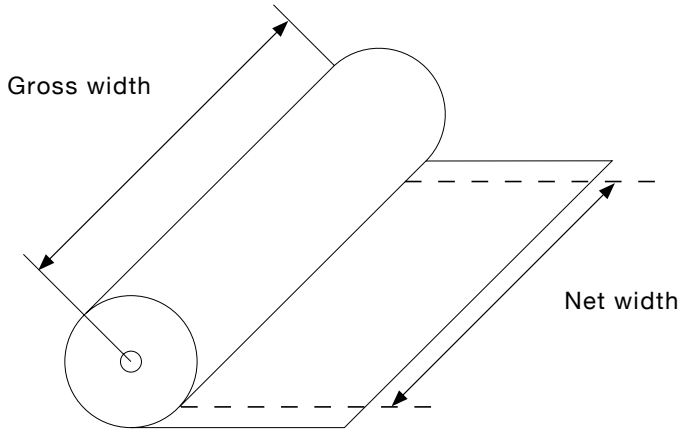
1.2 Assembly reserve/ handling reserve

For the installation an allowance is added all around to the measured dimensions of the ceiling or wall (this is hereinafter referred to as assembly reserve).
The table labeled T01 serves as a guide for this.
The assembly reserve depends on the size of the area or on the largest measured value.

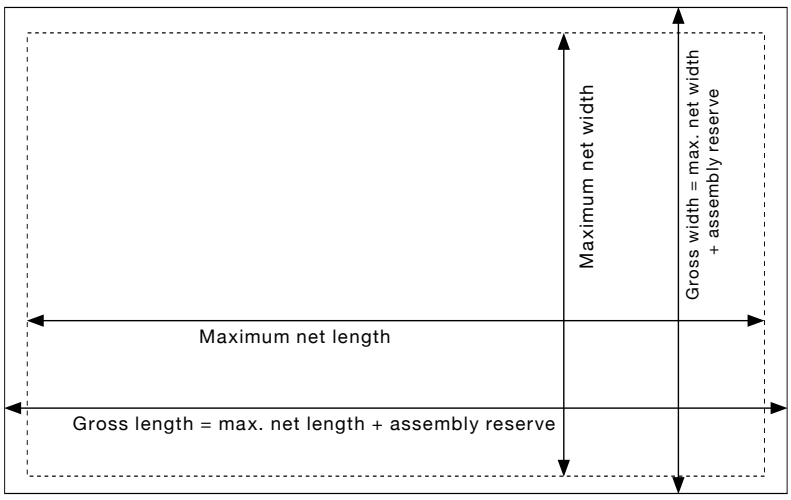
1.3 Ordering DESCOR®

1.3.1 Material on reels

DESCOR® is available in different dimensions and can be ordered in the following standard widths. The relevant information can be viewed on the current price lists and sample cards. The standard length of a roll is 50 linear meters.



Sketch S03 - material on reels – gross/net



Sketch S04 - determining the right size to order

1.3.2 Cut

If the measurement (please see Item 1.1) is known, the required assembly reserve (please see Item 1.2) is added on. This is calculated from the cutting measurements to be ordered (please see ordering example).
The width dimension is adapted to the relevant available reel width of the required material.

Ordering example:

Net dimension of ceiling:	2,90 m × 6,20 m
Net dimension + assembly reserve:	2,90 m + 0,10 m + 0,10 m = 3,10 m
	6,20 m + 0,30 m + 0,30 m = 6,80 m

		Item no.	*Width*	*Color*
Ordering:	DESCOR® PREMIUM	599130	320	450
	3,20 m × 6,80 m			

2.1 Explanation

The DESCOR® profiles are pre-drilled at a distance of 15 cm, whereby optimal installation is guaranteed through the use of screws. In addition, each of the profiles must be fastened to all joints/miters with a screw at the start and the end.
So that this work process can be completed without problems, the profile is provided with an integrated groove that simplifies the positioning of the screw.

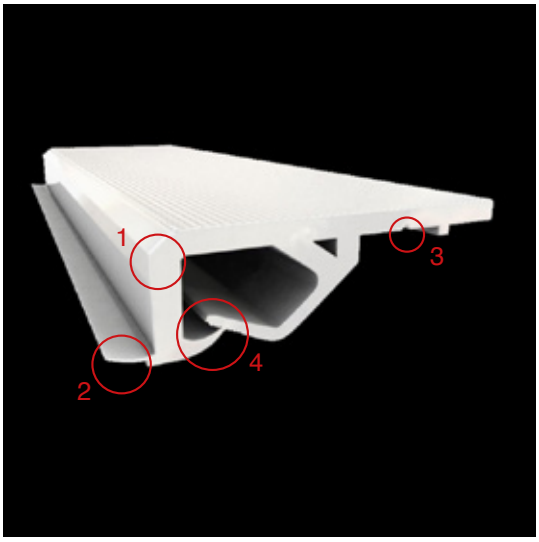


Image B01 – profile view

Chamfered edge (1)
The profile can be positioned better in corners thanks to chamfered edge.
Soft lip (2)
Due to a flawless finish the irregularities of the supporting surface are corrected.
Drill marking (3)
Thanks to drill markings, the fastening is simple and precise. It is therefore not necessary to remove the profile due to a screw that has been placed too far to the right. There is also no risk that the mounting clamp will squash the material due to a screw that is placed too far to the left.
Ribbed lip (4)
The ribbed lip ensures a safe support of the material and prevents it from slipping out after it has been grouted in.

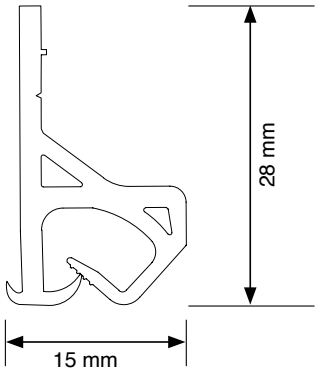
2.2 Types of profile

Item number	Designation	Color	Length (in m)	Material	Feature
098000 999	AP*	white	2,00	PVC	pre-drilled every 15 cm
098001 999	AP*	black	2,00		
098002 999	AM**	white	2,00		
098003 999	AM**	black	2,00		
098004 999	AP*	white	3,00		
098005 999	AP*	black	3,00		
098006 999	APC***	white	2,00		pre-drilled every 15 cm, for curves
098007 999	APC***	black	2,00		
098010 999	AP*	gray	2,00		pre-drilled every 15 cm

** please see Item 2.2.1; ** see Item 2.2.2; *** see Item 2.6*

Table T03 - types of profile

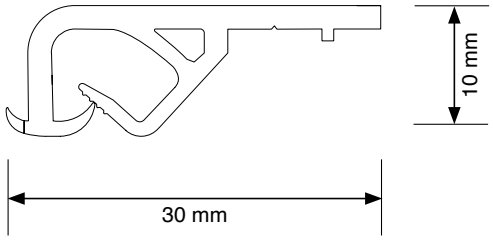
If a direct fastening of the DESCOR® profile onto the supporting surface is not possible or a greater installation depth is required, then, for example, an additional wooden strip or a wall bracket can be fitted.
The DESCOR® profile can be screwed onto the newly created supporting structure as usual (possibly also glued).



Sketch S05 - DESCOR® AM profile

2.2.1 DESCOR® AM profile

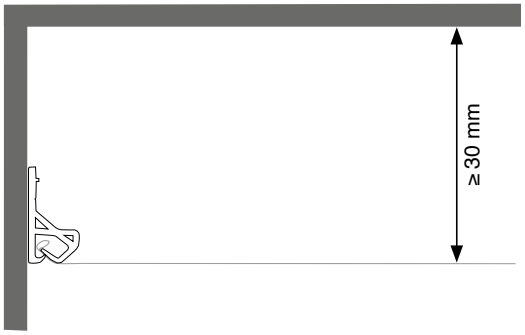
The DESCOR® AM profile enables direct fastening onto the wall, in order to achieve the required suspension height (S07). This fastening profile is especially suitable for fastening onto plasterboards.



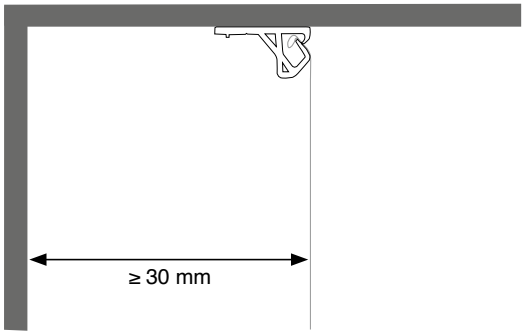
Sketch S06 - DESCOR® AP profile

2.2.2 DESCOR® AP profile

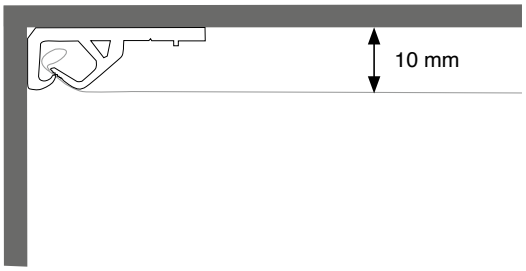
In the case of direct fastening onto the existing wall/ ceiling the DESCOR® AP profile enables a minimum installation depth of 10 mm (which corresponds to the height of the profile).



Sketch S07 - DESCOR® AM profile version

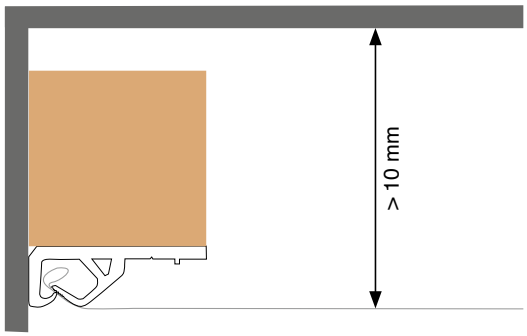


Sketch S08 - DESCOR® AM profile version

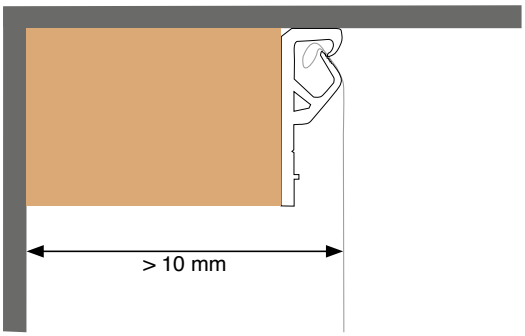


Sketch S09 - DESCOR® AP profile version

Sketch S10 - DESCOR® AP profile version



Sketch S11 - DESCOR® AP profile version



Sketch S12 - DESCOR® AP profile version

In every case the fastening must be completed carefully and every screw must be correctly in place, in order to guarantee a flawless result on the wall or ceiling. The correct screws/ screw lengths/ dowels and adhesive for the installation situation and supporting surface must be used. Further notes on possible fastenings are described under Item 2.3/ 2.4.

2.3 Fastening options for a ceiling

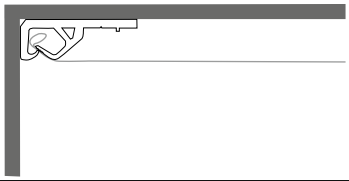
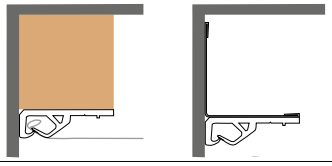
	Distance (in mm)	Profile	Supporting surface present	Supporting structure required	Fastening of DESCOR® profile onto supporting structure
	10	AP	Wood	no	round-head screws (4 × 20 mm)
			Plasterboard	no	contact adhesive + plasterboard screws (5.5 × 38 mm)
	≥ 40		Concrete	Wood/ wall angle	Wood: round-head screws (4 × 20 mm) Wall angle: pan head drilling screw (3.9 × 25 mm)
			Brick	Wood/ wall angle	
	≥ 40	AM	Wood	no	round-head screws (4 × 20 mm)
			Plasterboard	no	contact adhesive + plasterboard screws (5.5 × 38 mm)
			Concrete	Wood/ wall angle	Wood: round-head screws (4 × 20 mm) Wall angle: pan head drilling screw (3.9 × 25 mm)
			Brick	Wood/ wall angle	

Table T04 - ceiling fastening options

2.4 Fastening options for a wall

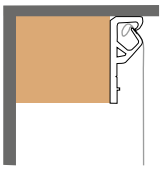
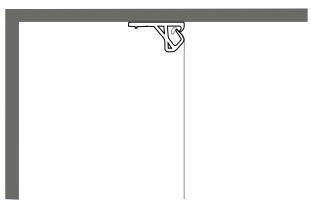
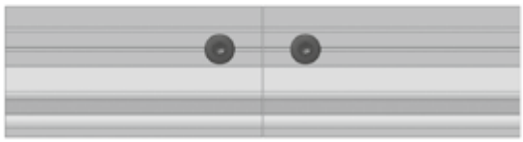
	Distance (in mm)	Profile	Supporting surface present	Supporting structure required	Fastening of DESCOR® profile onto supporting structure
	10	AP	Wood	no	round-head screws (4 × 20 mm)
			Plasterboard	no	contact adhesive + plasterboard screws (5.5 × 38 mm)
	≥ 40		Concrete	Wood/ wall angle	Wood: round-head screws (4 × 20 mm) Wall angle: pan head drilling screw (3.9 × 25 mm)
			Brick	Wood/ wall angle	
	≥ 40	AM	Wood	no	round-head screws (4 × 20 mm)
			Plasterboard	no	contact adhesive + plasterboard screws (5.5 × 38 mm)
			Concrete	Wood/ wall angle	Wood: round-head screws (4 × 20 mm) Wall angle: pan head drilling screw (3.9 × 25 mm)
			Brick	Wood/ wall angle	

Table T05 - wall fastening options

2.5 Connecting of profiles

The connections between the profiles must be clean and carefully arranged, so that no distance is visible between the profiles. The profiles (please see Item 2.1) must additionally be fastened by screws.
The alignment of the profiles can be simplified through the use of the DESCOR® assembly spatula.



Sketch S13 - profile connection – top view

Sketch S14 - profile connection – diagonal view

2.5.1 Connecting two profiles in corners

The miters can be made using miter shears with lever transmission or a miter saw (alternatively, a saw with a miter gage).

Image B02 - miter shears

Image B03 - miter saw

In the case of miters the clean and careful arrangement must also be ensured. The area that is later visible (1) is important here. The inner area (2) does not require any particular care, because this will later be covered by the textile.

Image B04 - corner assembly – shell

Image B05 - corner assembly – with textile

Image B06 - corner assembly – shell

Image B07 - corner assembly – with textile

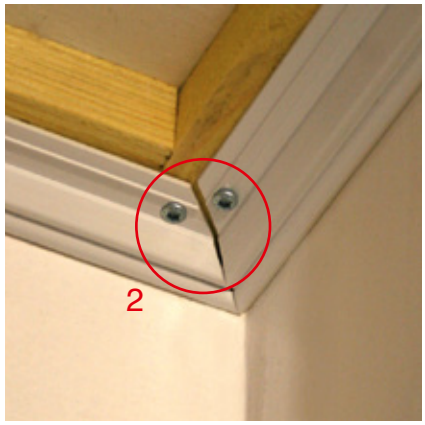
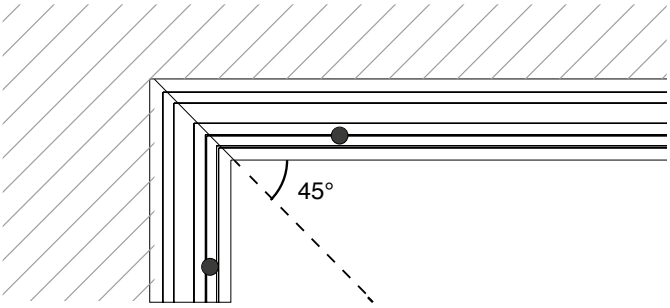
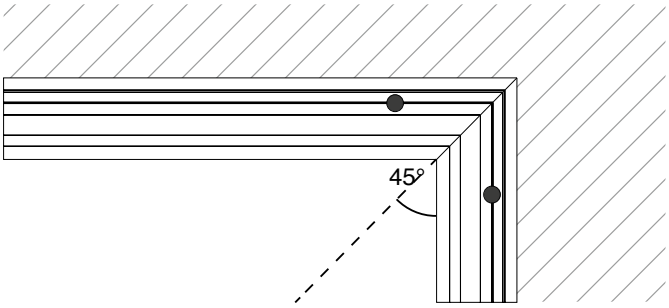


Image B08-B10 - corner assembly



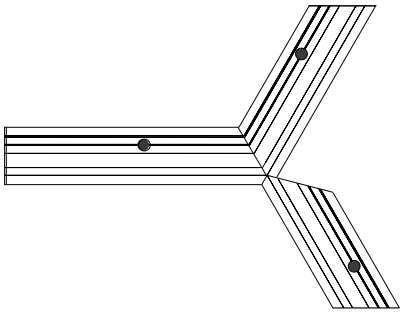
Sketch S15 - profile connection – top view



Sketch S16 - profile connection – top view

2.5.2 Connecting more than two profiles

Under consideration of the procedure named in Item 2.5.1, connections of several profile rails (e.g. in the case of gables/ the roof area) are possible. In doing this, the miter angle must be adapted individually.



Sketch S17 - connection of three profiles

Image B11 - example of connection of three profiles – shell

Image B12 - example of connection of three profiles

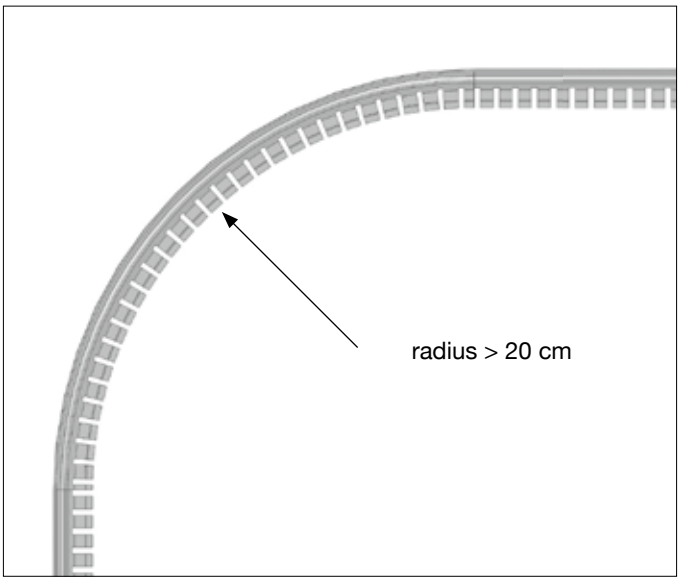
2.6 DESCOR® APC profile

The DESCOR® APC profile enables the use and the realization of rounded forms and curves. The smallest possible radius is about 20 cm.
We recommend fastening the profiles with screws at a distance of 5 cm.
For optimal support, a appropriate adhesive should also be used.

Image B13 - DESCOR® APC profile

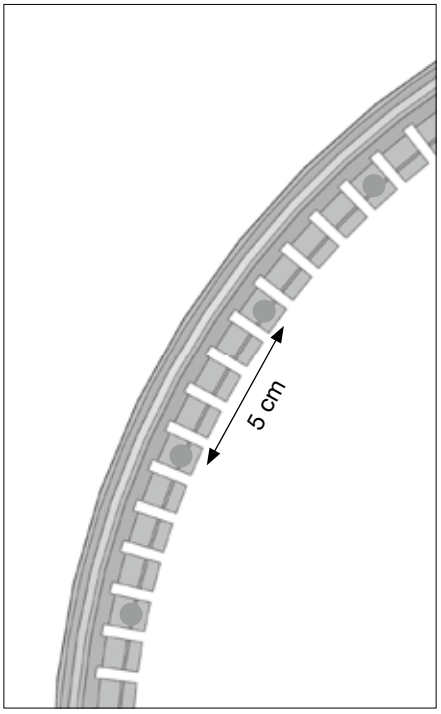
Image B14 - DESCOR® APC profile

Image B15 - DESCOR® APC- profile – minimum bending radius = 20 cm



Sketch S18 - DESCOR® APC profile

One screw every 5 cm and glue the whole surface for optimal fixation.



Sketch S19 - DESCOR® APC profile

2.6.2 An example for the DESCOR® AP and APC profile

Example: Moulins cathedral in Moulins, Allier, France

Image B16-B18 - AP profile, APC profile and insulating material in application

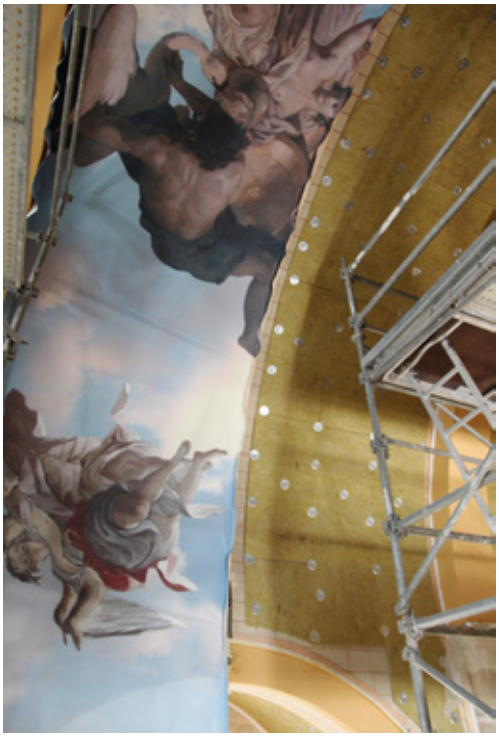
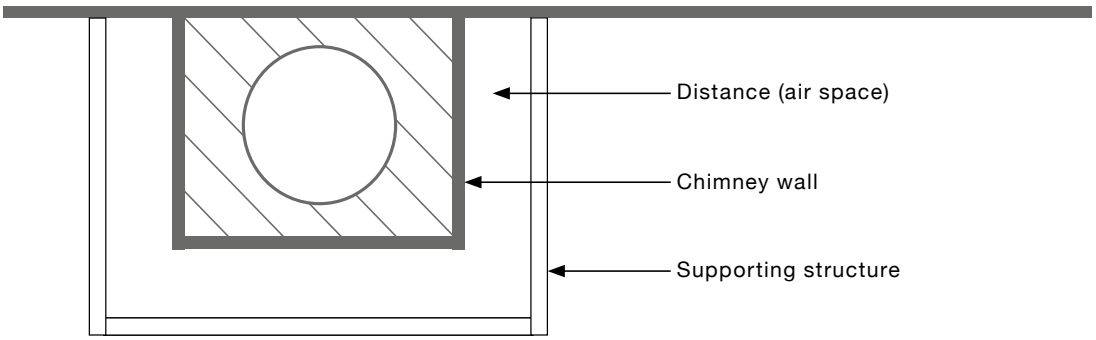


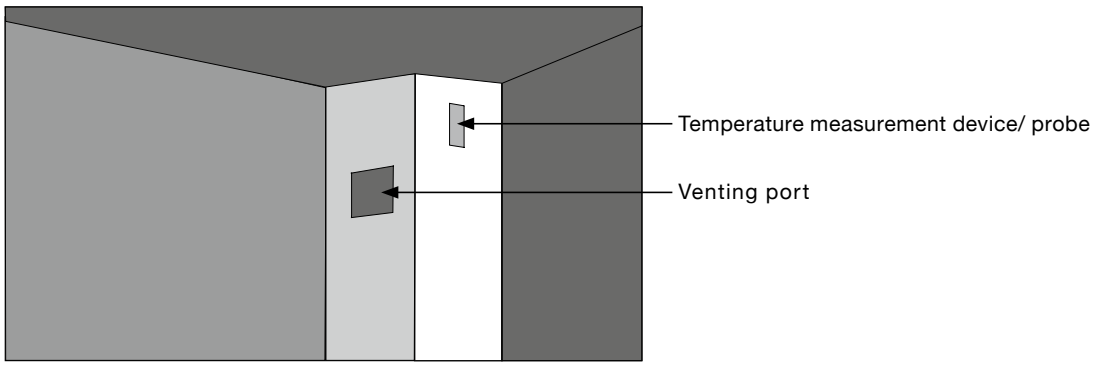
Image B19-B21 - DESCOR® with AP and APC profile

2.7 Installation situation for fireplaces

DESCOR® profiles are designed for use at normal room temperatures. A permanent temperature of 55°C on the profile should not be exceeded, in order to avoid the danger of the deformation of the profile (especially at the clamping lip). For temperature measurements it was determined that in the case of different kinds of chimneys, atmospheric temperatures of around 70°C or more can arise. For the determination and definition of coverings and distances, a temperature measurement (actual temperature) should take place over several hours near the site of installation.



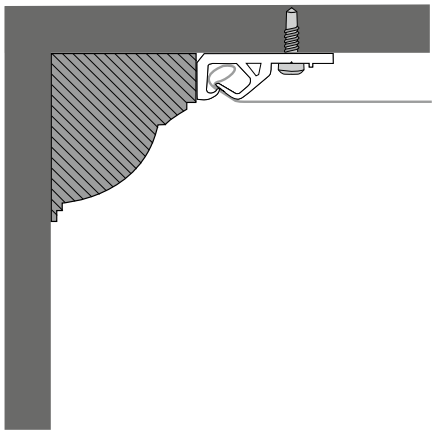
Sketch S20 - fireplace integration



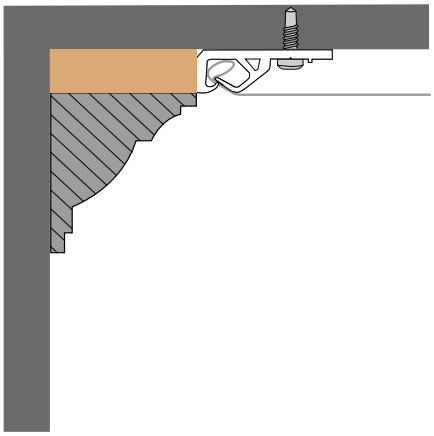
Sketch S21 - temperature control

2.8 Wall ledges and other decorative profiles

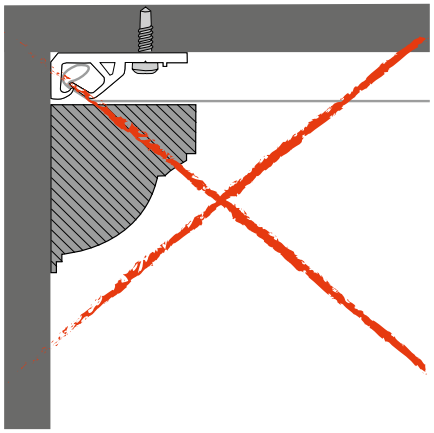
With the DESCOR® system, existing wall ledges and decorative profiles can be retained (in the case of the use of the DESCOR® AP profile with an installation depth of 10 mm).
For the assembly of new wall ledges/ decorative profiles there are several solutions, depending on the suspension height. In general, a wooden supporting structure should be worked with.



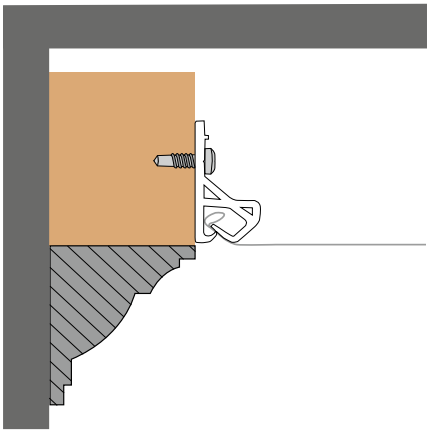
Sketch S22 - available wall ledges



Sketch S23 - wooden support (h = 10 mm)



Sketch S24 - integration of wall ledge



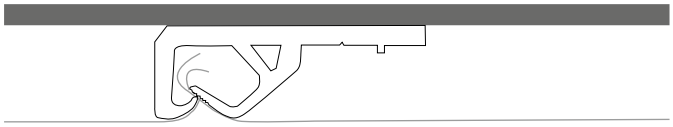
Sketch S25 - variable wooden support (h > 10 mm)

The DESCOR® profile should not be covered by the wall ledge, in order to ensure that the wall ledge is replaced quickly and in an uncomplicated way.

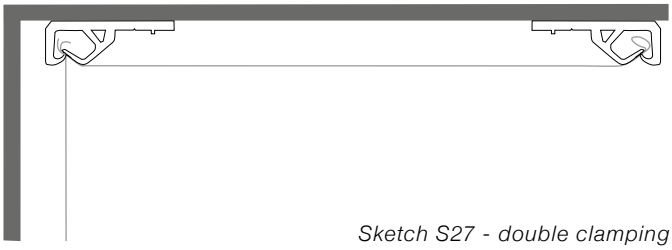
3.1 Explanation

In the case of wall or ceiling areas that exceed 5 m both in their length and in their width, it is possible to make a double clamping. For this, two clamping surfaces made from the same batch of material (the same production) are connected to one another. At the crossover, one single profile is used.

At a crossover between a wall and a ceiling, a double clamping can also be completed in one profile.



Sketch S26 - double clamping

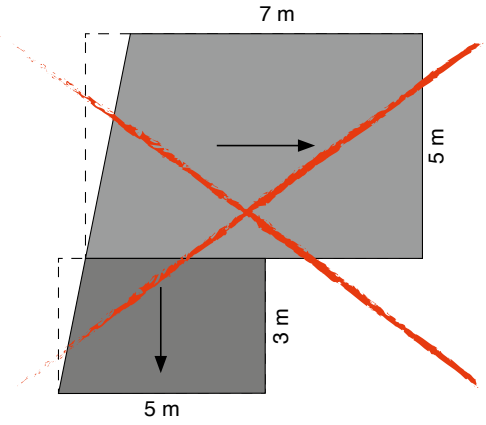


Sketch S27 - double clamping

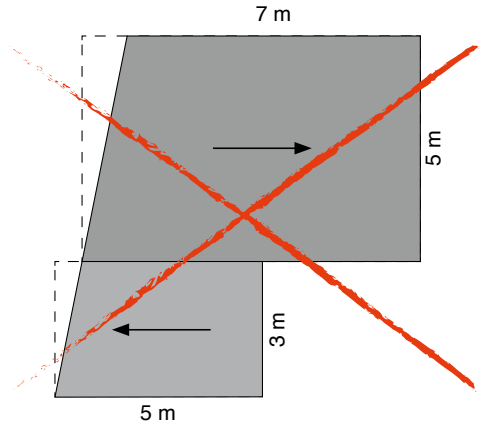
3.2 Running direction

In the case of a double clamping, account must always be taken of the running direction of the DESCOR® ceiling. This means the running direction of both surfaces must be aligned in the same way. Otherwise, depending on the structure, light reflection can cause a visible difference in color to result in the material.
If orders are for double clampings, this must always be specified.

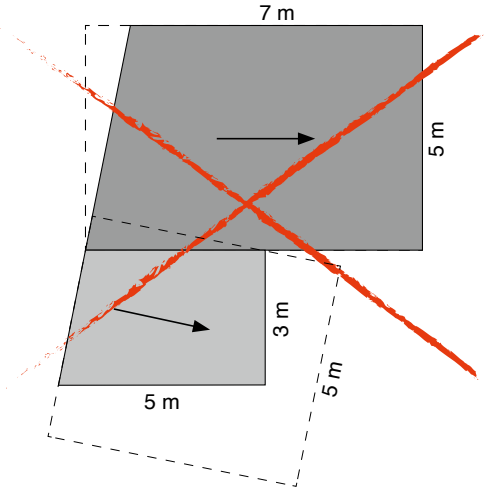
Image B22-23 - running direction



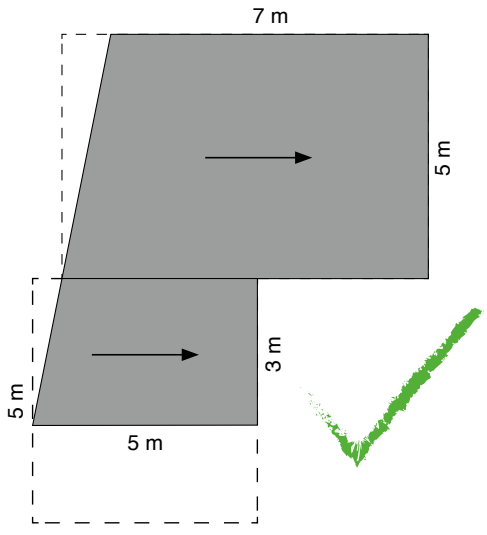
Sketch S28 - incorrect – perpendicular to one another



Sketch S29 - incorrect – opposite direction



Sketch S30 - incorrect – diagonal to one another



Sketch S31 - correct – the same, parallel direction

4.1 Selection of the supporting structure

The integration of technical elements frequently requires the additional installation of a supporting structure. The selection of the correct material is very important in this. Thus it should be ensured that non-corrosive screws are used in the bathroom.

The installation of the supporting structure must be carried out with the greatest possible care. A poorly implemented supporting structure leads to considerable requirements for subsequent improvements that take a lot of time.

Also the selection of the correct color for the material used for the supporting structure is important here. Do not paint white under any circumstances!

If possible, use a paint color that corresponds to the surface to be covered or dark colors such as those from MDF, OSB or chipboards.

The smaller the distance between the supporting structure and the textile ceiling and the lighter the supporting structure, the greater is the danger that this poses to the textile ceiling by its outline through residual light and reflections after its installation.
Especially in the case of the DESCOR® PREMIUM Acoustic attention must be paid to this, because it is particularly permeable to air. Also in the case of DESCOR® PREMIUM natural white, because no additional colour components are added.

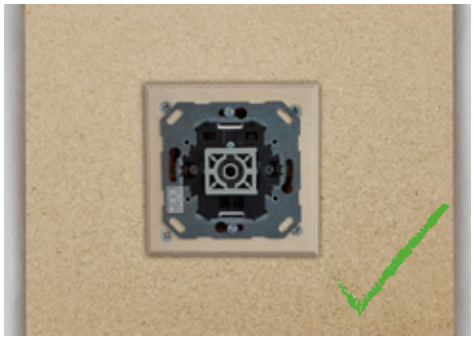


Image B24 - supporting structure - dark

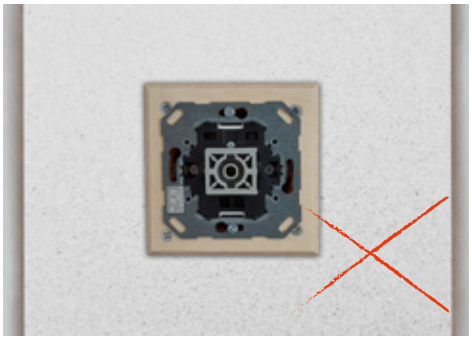


Image B25 - false supporting structure - light

Image B26 - completed final assembly

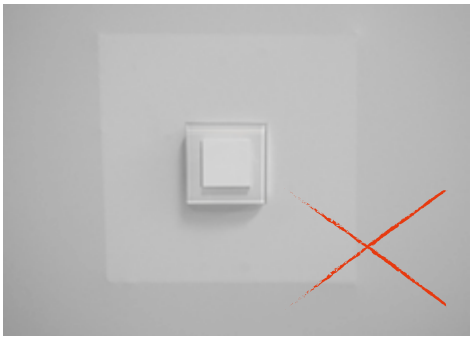
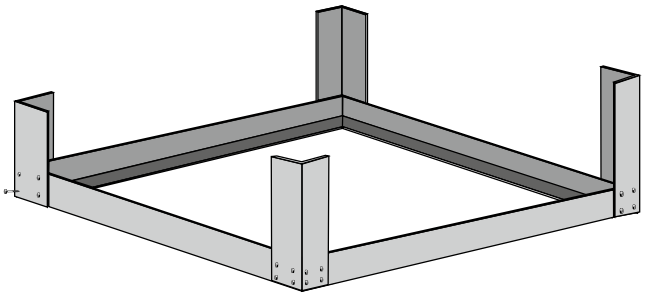


Image B27 - final assembly with visible supporting structure

4.2 Inspection cover

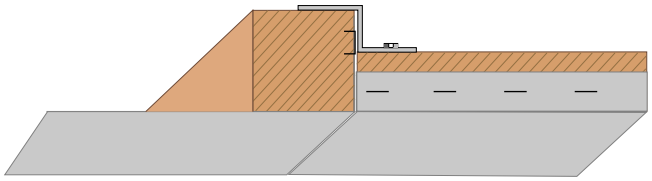
Areas that often require maintenance must be provided with inspection openings. In the case of installation of inspection flaps the situation on site is always decisive.

The covering of the inspection cover with DESCOR® differs depending on the type of fastening:
Glues, tacks or the use of DESCOR® profiles.

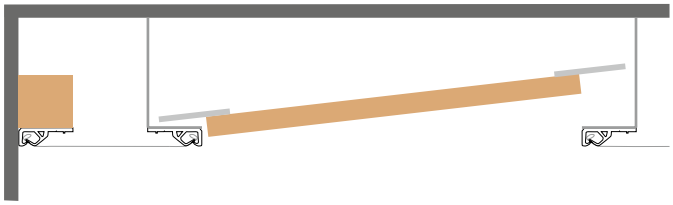


Sketch S32 - standard inspection cover 60 × 60 cm

Sketch S33 - inspection cover without AP profile

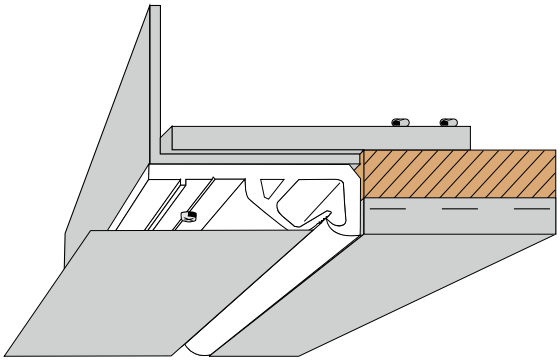


Sketch S34 - inspection cover without AP profile



Sketch S35 - inspection cover – installation

Sketch S36 - inspection cover - completed final assembly



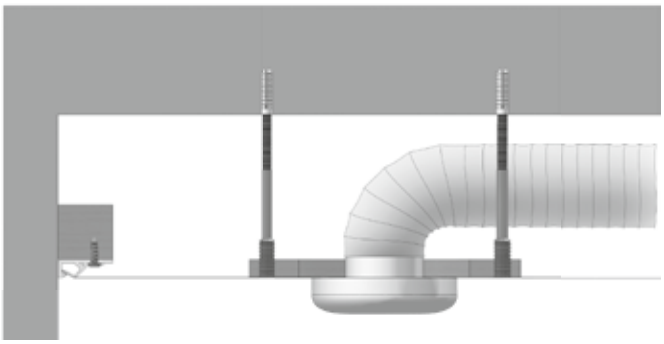
Sketch S37 - inspection cover fixed on

4.3 Lighting and ventilation units

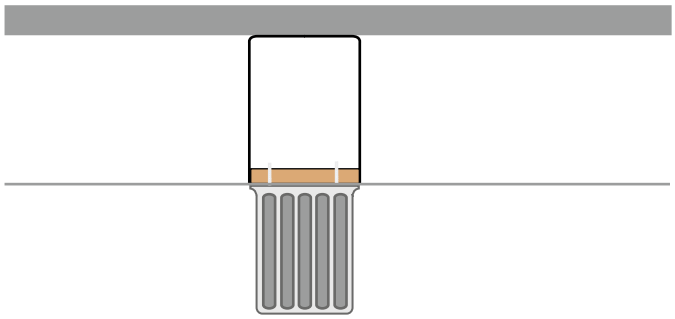
After fastening of the DESCOR® profiles, a 10 mm wooden panel, for example, is fitted flush with the DESCOR® profiles on the existing ceiling. For an optimal adaptation to the height, a cord can be configured. The cord is stretched from profile to profile through the use of an assembly spatula and then the supporting structure/ spotlights are installed flush to the cord.
In order to compensate for small height differences, the edges on the wooden plate supporting structure are rounded. After assembly of the ceiling, the lamp is fastened onto the pre-assembled wood supporting structure through the ceiling. The location can be made visible with the help of a laser.

Sketch S38 - integration of lamp – distance = 10 mm

Sketch S39 - integration of lamp – distance > 10 mm



Sketch S40 - integration of ventilation gaps



Sketch S41 - integration of smoke detectors

The DESCOR® ceiling can be cut into with a cutter knife. There is no danger that the place that has been cut into will tear further. It is not necessary to additionally stick in a safety ring (such as in the case of a vinyl ceiling).

All fittings/ supporting structures must be fastened in such a way that they do not become loose and/ or fall from behind onto the DESCOR® ceiling, or could touch this.

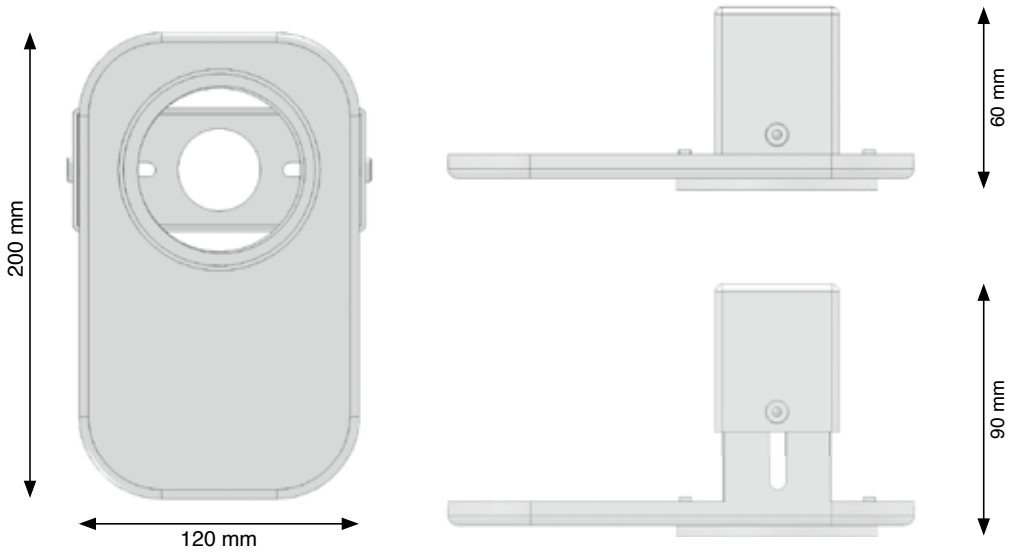
4.4 Installation of spotlights

For the installation of standard spotlights, PONGS® offers a spotlight installation frame that makes installation simpler and shortens the installation time.

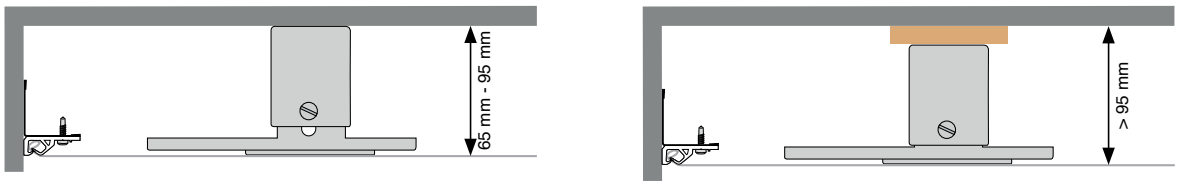
Properties/ Advantages:

- Removable ring for different diameters (70 and 80 mm)
- Contact between textile and spotlight installation frame max. on the lowest ring level (see sketch S42)
- Height regulation through later adjustment is possible
- Space for storage of transformers: This can also be removed through the opening of the spotlight for the purpose of maintenance or repair
- Height regulation between 65-95 mm

Image B28-29 - spotlight installation frame



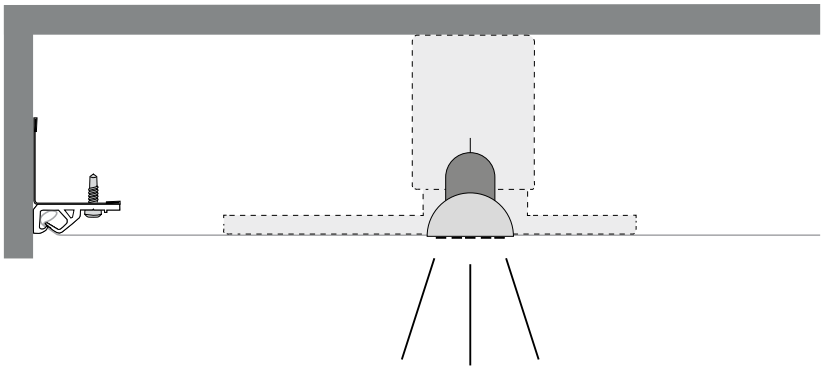
Sketch S42 - spotlight installation frame



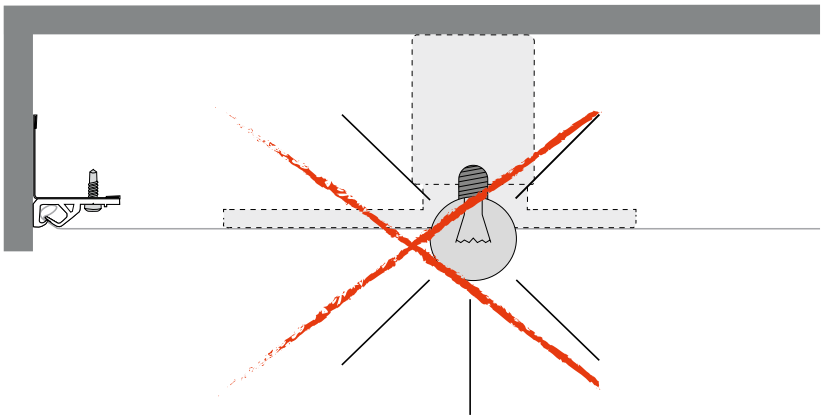
Sketch S43-44 - spotlight integration

4.5 Use of a lamp

During installation it must be ensured that no openings arise that could allow light to shine into the space between the textile and the ceiling. An example here is the use of LED spotlights (S44).
If light bulbs need to be used (S45) the supporting structure must be installed in a way that is impermeable to light in order to prevent light beams from intruding into the space and outlines being marked on the supporting structure on the textile.



Sketch S45 - integration of spotlight

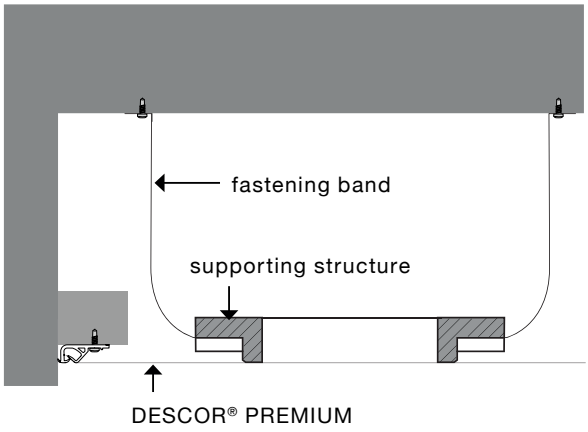


Sketch S46 - incorrect - integration of light bulb with light beams in the space

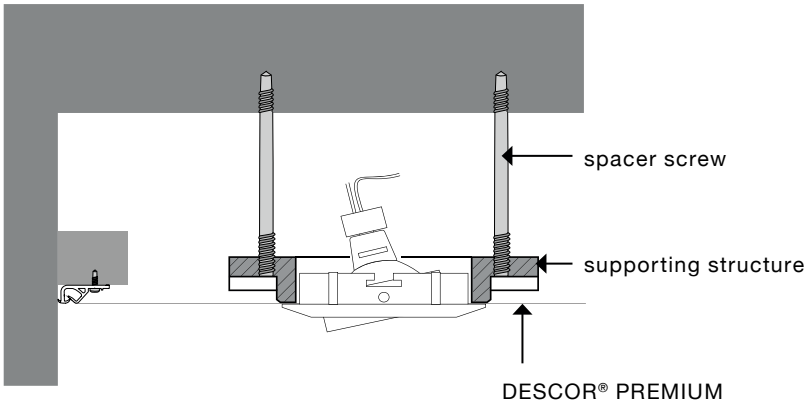
4.6 Supporting structure - PONGS® easy fix

The supporting structures of PONGS® easy fix are particularly suitable for the integration of elements such as lamps or spots, as long as the height of the suspension exceeds 20mm. The installation and adjustment of these substructures is carried out either with spacer screws through the pre-drilled holes or with a fastening band in the provided cut-outs. PONGS® easy fix substructures fit on almost all spot lamps as well as on vents with a diameter of 80mm, 100mm or 120mm. The model (B33) can be drilled occasionally on each diameter.

The installation of a supporting structure with spacer screws is ideally suited for ceilings with a suspension height from 60mm. The finished height of the substructure must be made before assembling the fabric. The installation of a substructure with a fastening strap is ideal for ceilings with larger heights. The finished height of the substructure can still be finely adjusted after mounting the fabric.



Sketch S47 - supporting structure with fastening band



Sketch S48 - supporting structure with spacer screws

Image B30 - supporting structure 130x130mm (74 mm Ø)

Image B31 - supporting structure 152x152mm (87 mm Ø)

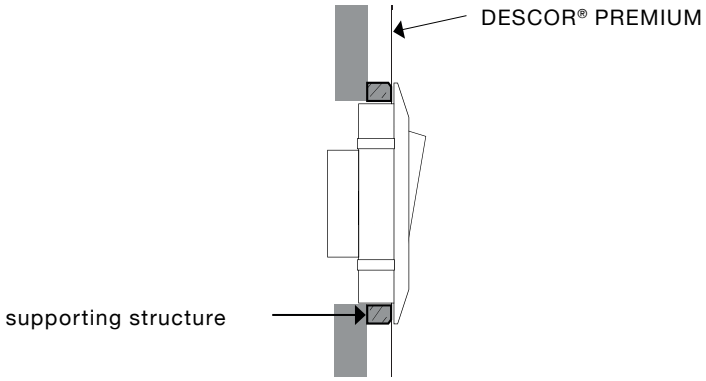
Image B32 - supporting structure 172x172mm (107 mm Ø)

Image B33 - supporting structure 196x196mm (132 mm Ø)

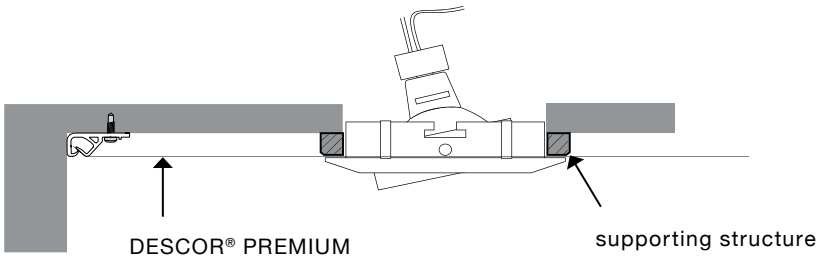
Image B34 - supporting structure 350x200mm

Image B35 - supporting structure 130x130mm

The thin PONGS® easy fix substructures are particularly suitable for the integration of elements when the suspension height is 10mm. These substructures fit on almost all spot lamps, as well as on vents with different diameters of 80mm, 100mm or 120mm. The narrow construction ensures complete coverage after installation of the elements, in order to avoid a possible shadow effect. The specially created bars can be used for special built-in elements such as quadrangular ventilation grilles or electrical boxes. They can be easily cut on measure with a profile shears. For time-saving, easy installation, all models are pre-drilled.



Sketch S49 - Thin supporting structure with switch element



Sketch S50 - Thin supporting structure - installation example

Image B36 - supporting structure
Thickness 8mm - ext. 104 mm Ø (int. 74 mm Ø)

Image B37 - supporting structure
Thickness 8mm - ext. 130 mm Ø (int. 87 mm Ø)

Image B38 - supporting structure
Thickness 8mm - ext. 150 mm Ø (int. 107 mm Ø)

Image B39 - supporting structure
Thickness 8mm - ext. 175 mm Ø (int. 132 mm Ø)

Image B40 - supporting structure 84x84mm
Thickness 8mm - (69 mm Ø)

Image B41 - supporting structure 496mm
Thickness 8mm

5.1 Special tools required

Two special tools are required for the installation:

- Assembly spatula
- Spatula for arranging the corners

Further important tools as well as accessories are listed in the current price lists.

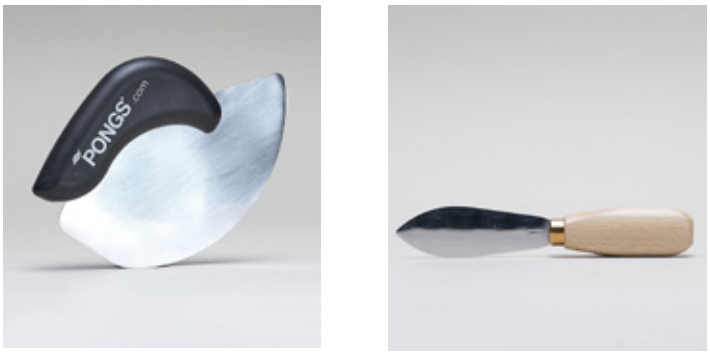


Image B42-43 - spatula for corner processing and assembly spatula

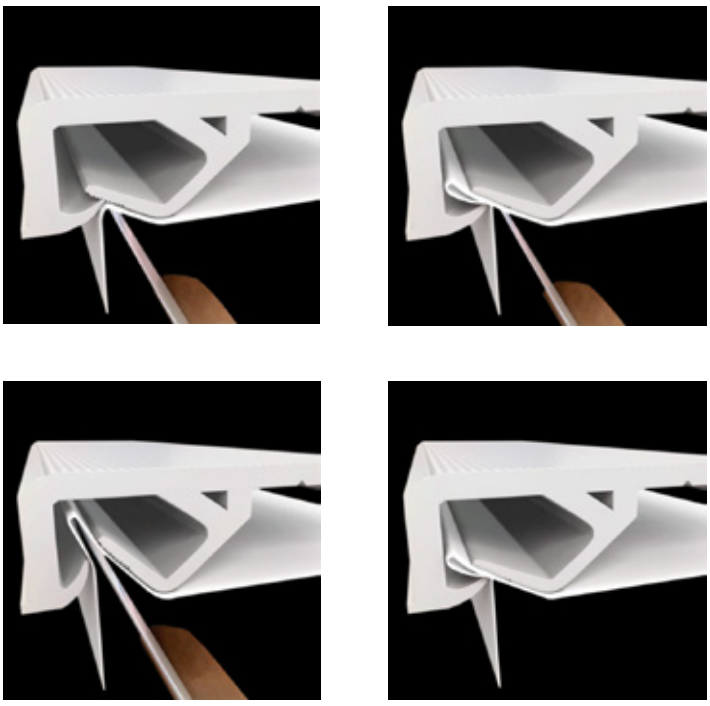


Image B44-47 - fastening (schematic)

5.2 Fastening of a stretch ceiling

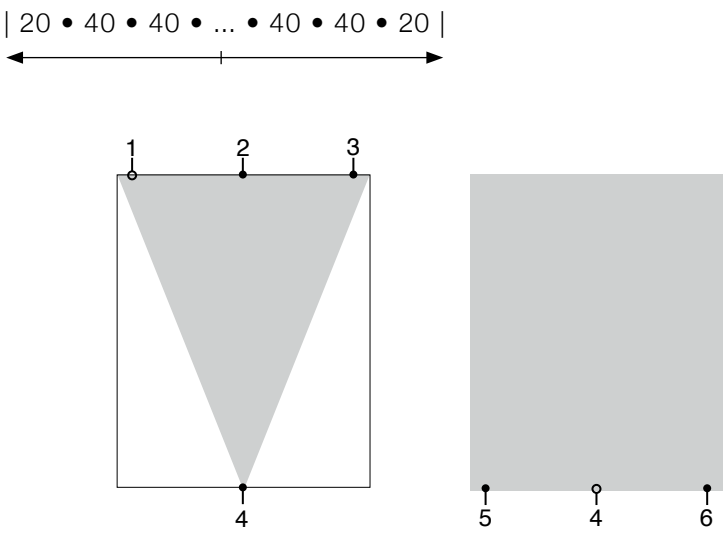
The assembly spatula is placed/ pressed into the DESCOR® textile and unrolled to the side. Then the assembly spatula is pulled out. This process is repeated at regular intervals (see also item 5.2). The textile must be incorporated/ pushed in, between 0.8 and 1.0 cm into the profile.
During unrolling the spatula, attention must especially be paid to the tip of the spatula, so that the textile is not damaged. The tip of the spatula is only used for finishing the corners. After the complete stretching the protrusion is cut to about 1 cm before the profile. The excess material is then completely incorporated into the profile using the assembly spatula.

Image B48-51 - fastening

5.3 Installation of a stretch ceiling

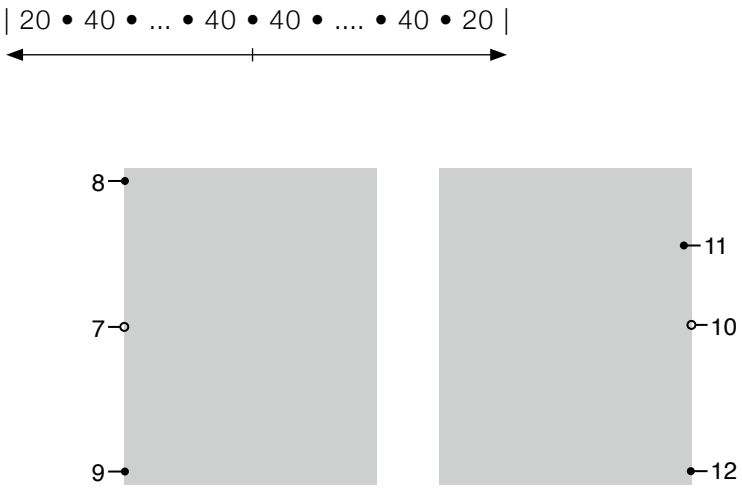
Positioning, fastening, stretching

Begin with the positioning about 20 cm before one corner (1). From there, the stretched ceiling is fastened into the DESCOR® profile (2) about every 40 cm. This process is repeated up to about 20 cm before the end of the next corner (3).



Sketch S51-S52 - installation of a single-color DESCOR® ceiling

Now a triangle is formed and the tip that has been formed (4) is again fastened to the opposite side in the DESCOR® profile. From the position fastened in the middle, now, at a distance of 40 cm the stretched ceiling is fastened to the ends (5 and 6).



Sketch S53-S54 - installation of a single-color DESCOR® ceiling

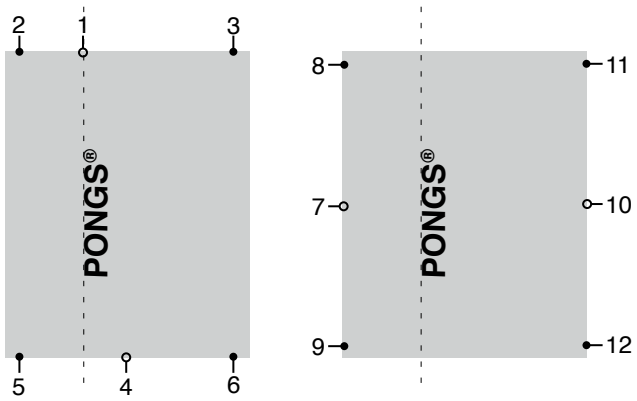
The two other sides are fastened to the corners (7-12) in the same procedure from the middle (images of a triangle) and also at a distance of 40 cm in the DESCOR® profile.
Then the sides are retightened. A start is made in the middle of each side. To do this, the nearest fixation point is loosened and the material is then retensioned every 20 cm.

| 20 • 20 • ... • 20 • 20 • .... • 20 • 20 |

If the ceiling now has enough tension and no folds can be seen, the complete clamping of the stretched ceiling in the profile can take place – starting in the middle.

5.3.1 Installation of a digital print

During fastening, attention must be paid to the positioning of the pressure and its position in the room, if necessary a start must be made not at a corner but at a certain position (1); from there, proceed according to the points described previously.



Sketch S55-S56 - installation of a DESCOR® ceiling with a digital print

5.4 Installation of a DESCOR® ceiling (> 7 linear meters)

During the installation of stretched ceilings with a length of more than 7 linear meters, points are added during the completion, so that the stretched ceilings do not sag under their own weight during the installation.

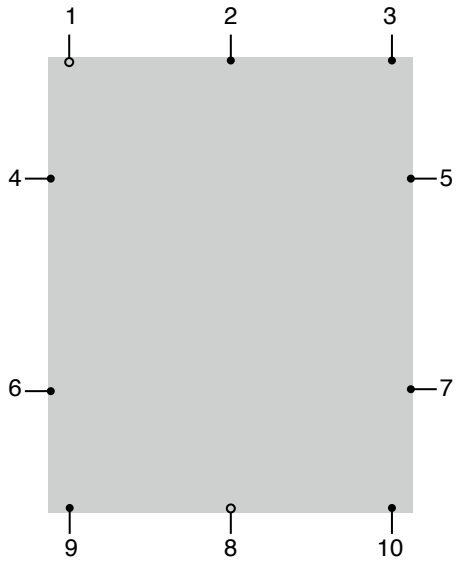
Positioning, fastening

Starting with the narrow side (which corresponds to the DESCOR® fabric width; max. 5.20 m gross) the ceiling is fastened in accordance with Item 4.1 in the DESCOR® profile at a distance of 40 cm (1-3). For the easier installation of the opposite sides and in order to avoid a sagging of the ceiling, additional clamping points are added on the long sides depending on the length of the ceiling (for examples, please see: 4-7) Then the fastening to the second narrow side (opposite the starting point) takes place, starting in the middle (8-10).

Pretensioning, tensioning

Starting in the middle on one of the long sides, fastening to the corners takes place again with a distance of about 40 cm (1-5). Then the opposite long side is fastened analogously (6-10).

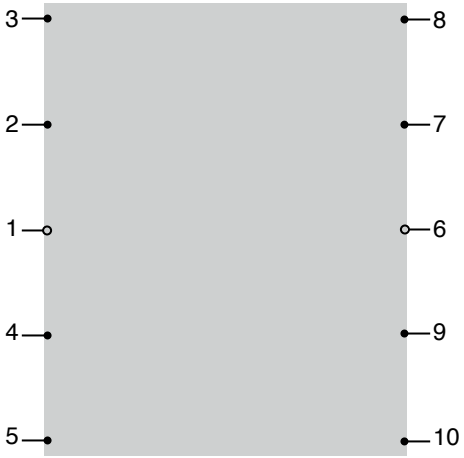
| 20 • 40 • ... • 40 • 40 • .... • 40 • 20 |



Sketch S57 - installation of a DESCOR® ceiling

Then the sides are retightened. A start is made in the middle of each side. To do this, the nearest fixation point is loosened and the material is then retensioned every 20 cm.

| 20 • 20 • ... • 20 • 20 • .... • 20 • 20 |



Sketch S58 - installation of a DESCOR® ceiling

Precision work

If the ceiling now has enough tension and no folds can be seen, the complete clamping of the stretched ceiling in the profile can take place – starting in the middle.

Finally the protrusion is cut, up to about 1 cm before the profile. The excess material is completely worked into the profile using the assembly spatula.

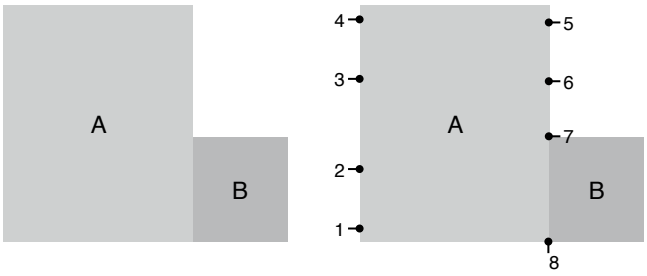
5.5 Installation of complex ceiling systems

In the case of complex ceiling systems, the assembly of a ceiling is split into several zones. Firstly, the larger zone is prepared.

Positioning, fastening (Zone A)

Begin with the positioning about 20 cm before one corner (1). From there, the stretched ceiling is again fastened into the DESCOR® profile at a distance of 40 cm. This work step is repeated up to about 20 cm before the end of the next corner (1-4).

| 20 • 40 • 40 • ... • 40 • 40 • 20 |



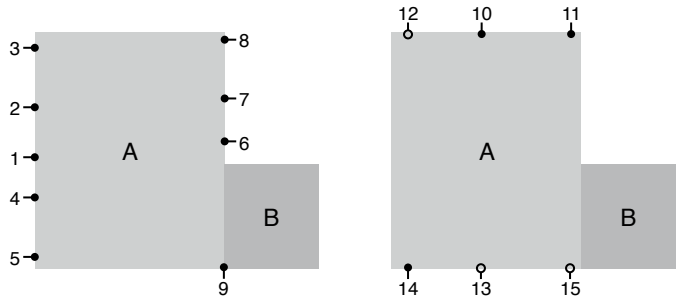
Sketch S59-S60 - installation of complex ceiling systems

Then the opposite side is fastened into the DESCOR® profile (5-8).

Pretensioning, tensioning (Zone A)

Then the starting side is retightened. A start is made in the middle of the side. For this, the nearest fixation point is loosened and the material is now retensioned every 20 cm (1-5).

| 20 • 20 • ... • 20 • 20 • .... • 20 • 20 |



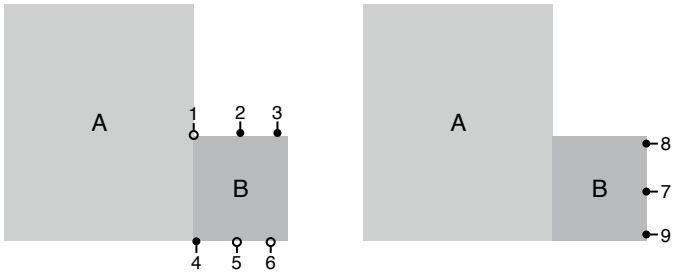
Sketch S61-S62 - installation of complex ceiling systems

Then the opposite side is retightened in the DESCOR® profile (6-9). These work steps are repeated on the narrow sides (10-15).

Positioning, fastening, tensioning (Zone B)

The ceiling is cut into up to the inner corner (1) (please see item P5.5). From there, the stretched ceiling is fastened into the DESCOR® profile at a distance of about 40 cm. This process is repeated up to about 20 cm before the end of the next corner (1-3).

| 20 • 40 • 40 • ... • 40 • 40 • 20 |



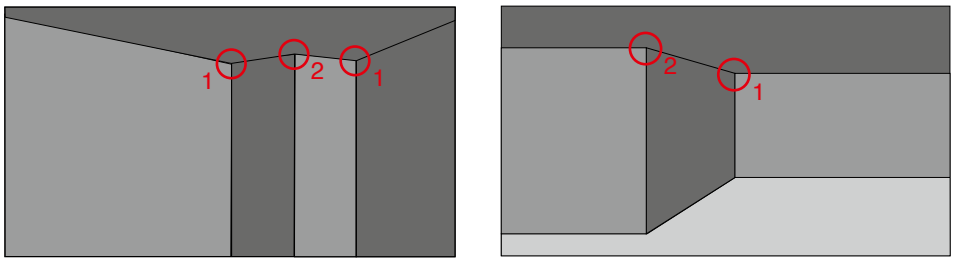
Sketch S63-S64 - installation of complex ceiling systems

Then the opposite side is fastened into the DESCOR® profile (4-6). The last side is tensioned starting from the middle in the same procedure and then retightened at a distance of 20 cm.

Then the complete clamping into the DESCOR® profile takes place.

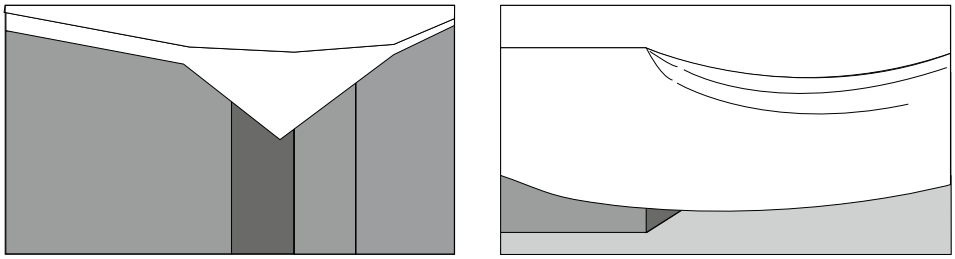
5.6 Finishing of corners

Inner (1) and outer (2) corners are treated differently.



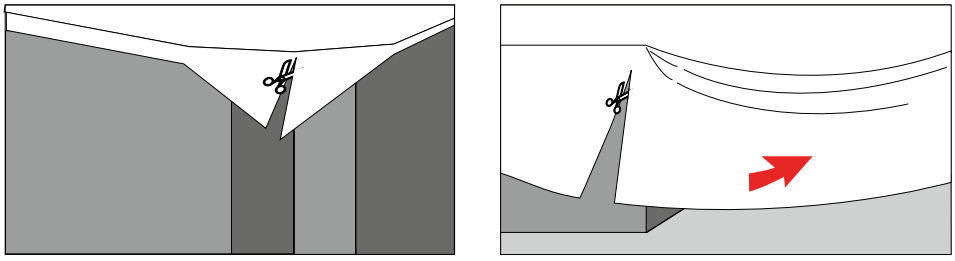
Sketch S65-66 - corner preparation

After the grouting in of the ceiling, a tension forms on the outer corners.

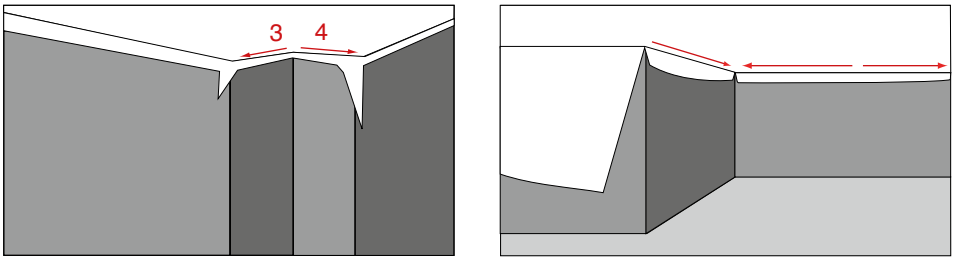


Sketch S67-68 - corner preparation

The textile is now cut into with the scissors, up to the inner lip.



Sketch S69-70 - corner preparation



Sketch S71-72 - corner preparation

Starting at the outer corners, now the material is incorporated into the profile alternately to the left and the right (3-4).

When the whole ceiling has been tensioned, then the corners are carefully prepared.

6.1 Acoustics and decoration for walls and ceilings

Through the use of DESCOR® PREMIUM Acoustic a pleasant room atmosphere is created. This is achieved through an acoustic correction that results in improved room acoustics. The system contributes to a reduced sound transfer of airborne sound and structure-borne sound. Through the structure, the reverberation time in rooms is considerably reduced.

DESCOR® PREMIUM Acoustic

The invisible microperforation in combination with further insulating material (e.g. PONGS® Acoustic Fleece) enhances the acoustic effect.

Acoustic correction

Great decrease of the sound level (acoustic correction) in reverberant spaces in connection with insulation panels.
Sound insulation in connection with a plasterboard and insulating material for noise barriers, separating walls etc.

Decoration

DESCOR® PREMIUM Acoustic is available in the colors natural white and black, also customizable in individual UV digital printing procedure (images/ logos).

Structure

The system consists of an insulating material (absorber) and the micro-perforated acoustic paneling DESCOR® PREMIUM Acoustic.

Fields of application

Living rooms, teaching rooms, business rooms and conference rooms, restaurants, sports centers, lobbies, in new builds, during renovation and for retrofitting.

Improvement of acoustic conditions

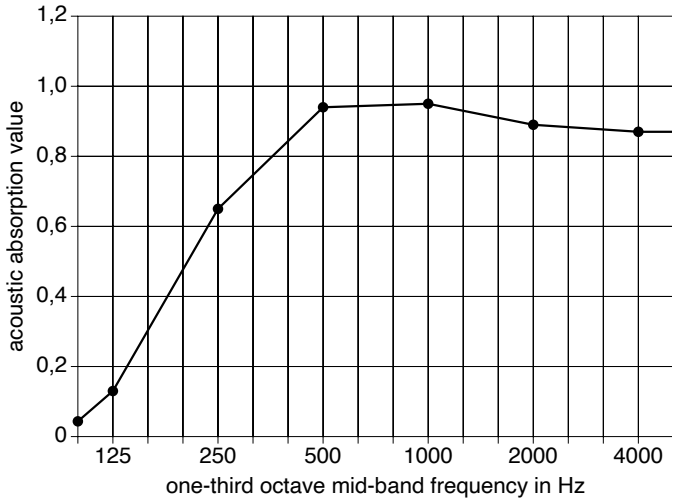
With DESCOR® PREMIUM Acoustic the acoustic conditions in rooms are considerably improved.

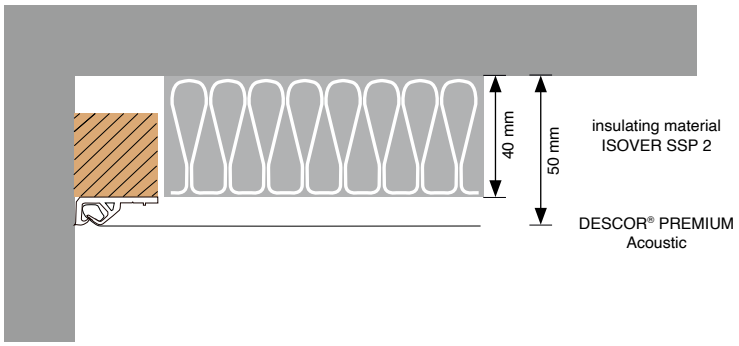
This procedure is about achieving good comprehensibility of the acoustic message, avoiding the „cocktail party effect“, as well as guaranteeing an improved and corrected homogeneity of the sound field, with reference to level and frequency. Whereby the use of an acoustician is necessary in certain situations.

The perfect combination of acoustic performance and esthetics.

Design type E-50 in accordance with DIN EN ISO 354, lying on the echo chamber floor DESCOR® PREMIUM Acoustic in front of 50 mm air space coated with 40 mm ISOVER SSP 2

weighted sound absorption coefficient αw 0,90
sound absorption class: A





Sketch S73 - DESCOR® PREMIUM Acoustic in front of 50 mm

6.2 Fastening of acoustic materials

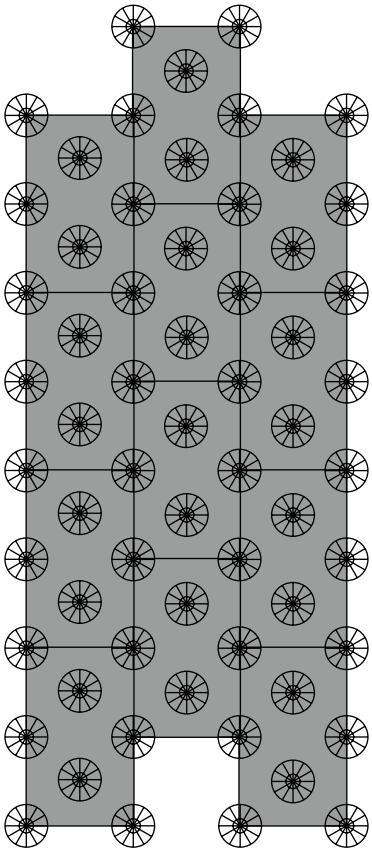
Type of insulation	Supporting surface	Type of fastening	Fastening of insulating materials
PONGS® Acoustic Fleece/ ISOVER SSP 2 panel	Wood	Insulation fixing with screw	 The fastening must always be adapted to the insulation used. Possible varieties, depending on the supporting surface, are: Insulation fixing, assembly or spray adhesive.
	Hollow bricks	Insulation fixing with tensioner	
	Plasterboard		
	Plaster	Insulation holder with knock-in dowel	
	Concrete		

Table T06 - types of fastening

6.3 System structure for ceilings

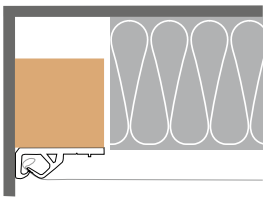
	Distance (in mm)	Absorber(s)	Weighted sound absorption coefficient α_w	Sound absorption class
	≥ 50	1× ISOVER SSP 2 (40 mm) 1× DESCOR® PREMIUM Acoustic	0,90	A

Table T07 - system construction - ceiling

6.4 System structure for walls

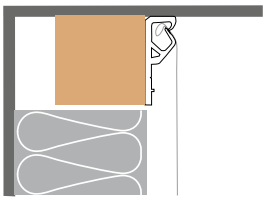
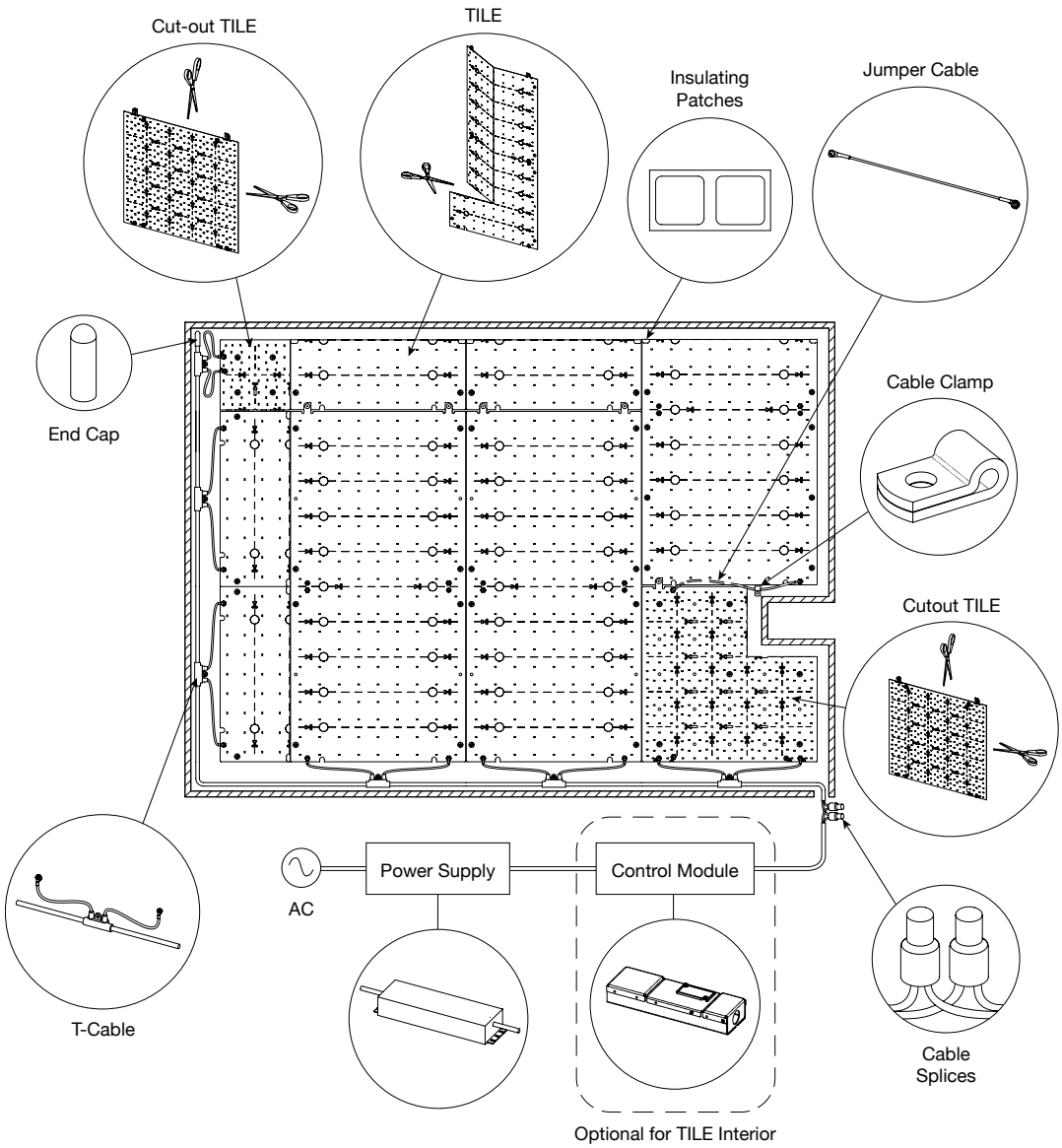
	Distance (in mm)	Absorber(s)	Weighted sound absorption coefficient α_w	Sound absorption class
	≥ 50	1× ISOVER SSP 2 (40 mm) 1× DESCOR® PREMIUM Acoustic	0,90	A

Table T08 - system construction - wall

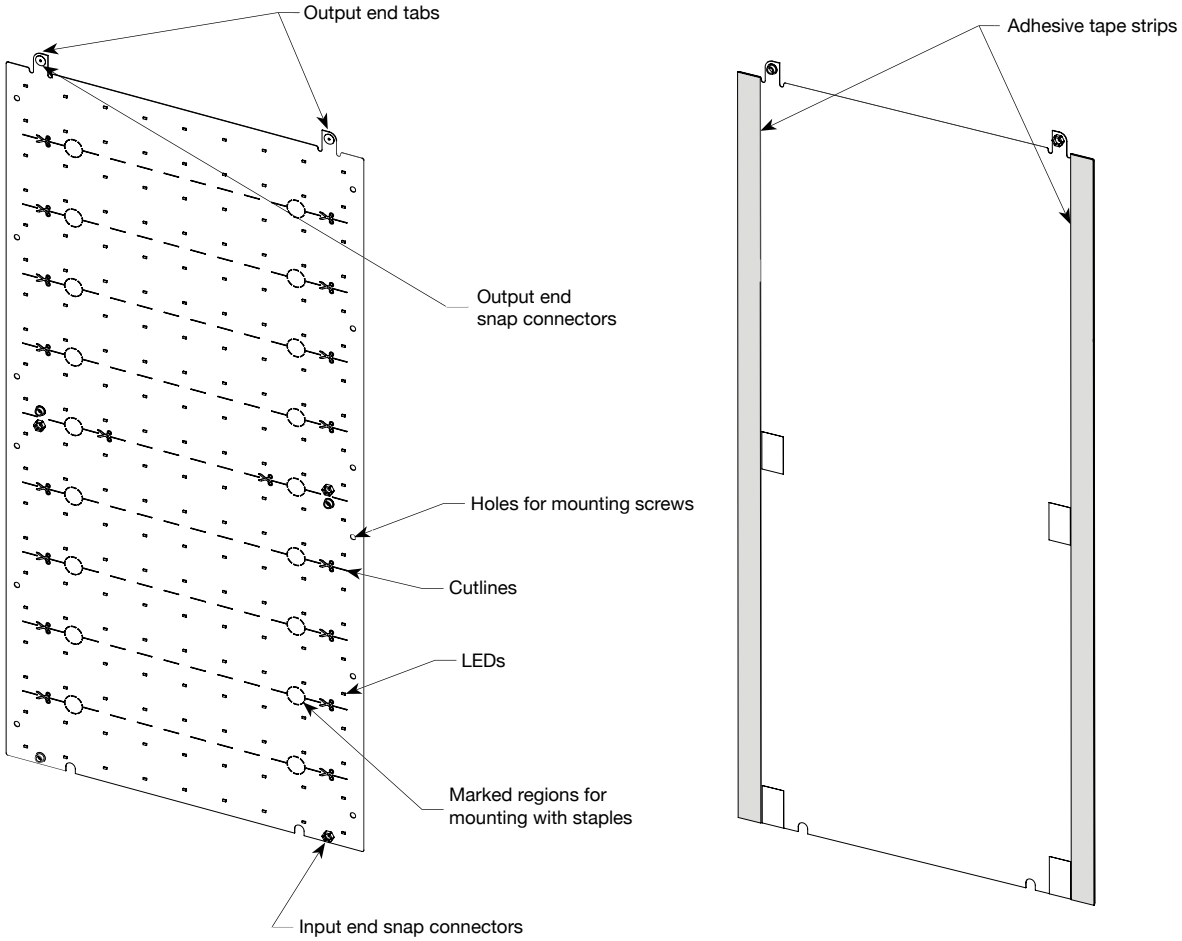
7.1 Cooledge TILE Interior / Tunable White

With Cooledge TILE Interior / Tunable White, large areas can be flexibly illuminated. The electric sheets can be connected in series with snap connectors and installed on both flat and uneven surfaces. Before installation, please make sure that the power supply is switched off. TILE products are only suitable for dry locations.



Sketch S74 - Cooledge TILE Interior/Tunable White

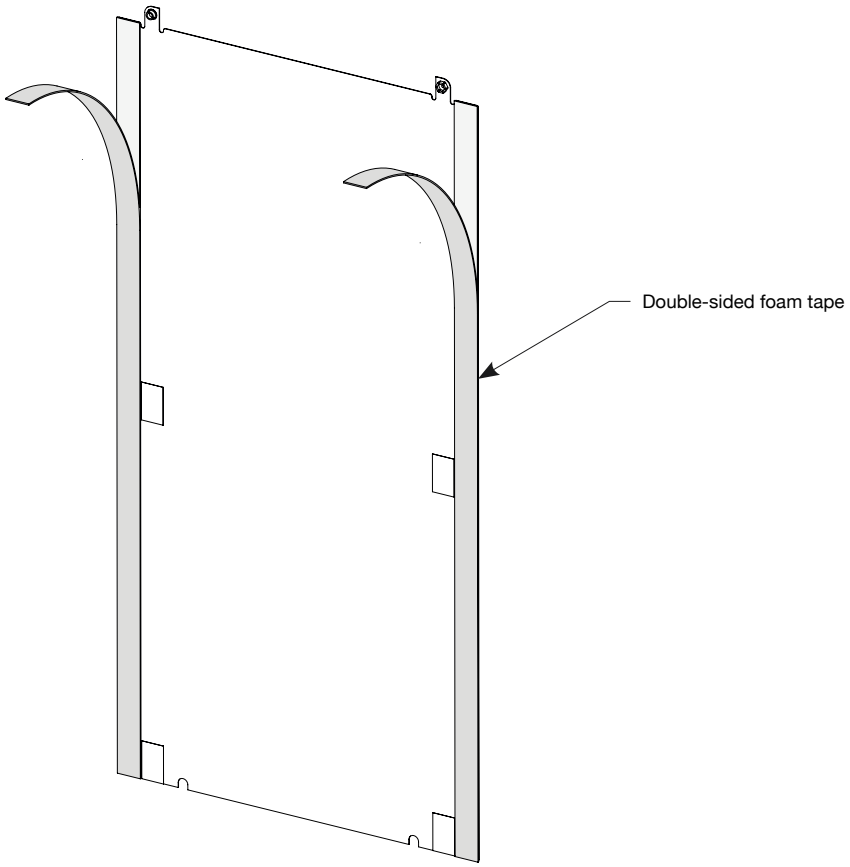
Front view **Back view**



Sketch S75 - TILE Interior/Tunable White front/back view

TILE Interior / Tunable White offers the flexible possibility to illuminate large areas. Individual TILEs can be connected in series with special connectors and installed on both flat and curved surfaces.

7.2 Cooledge TILE Fixing

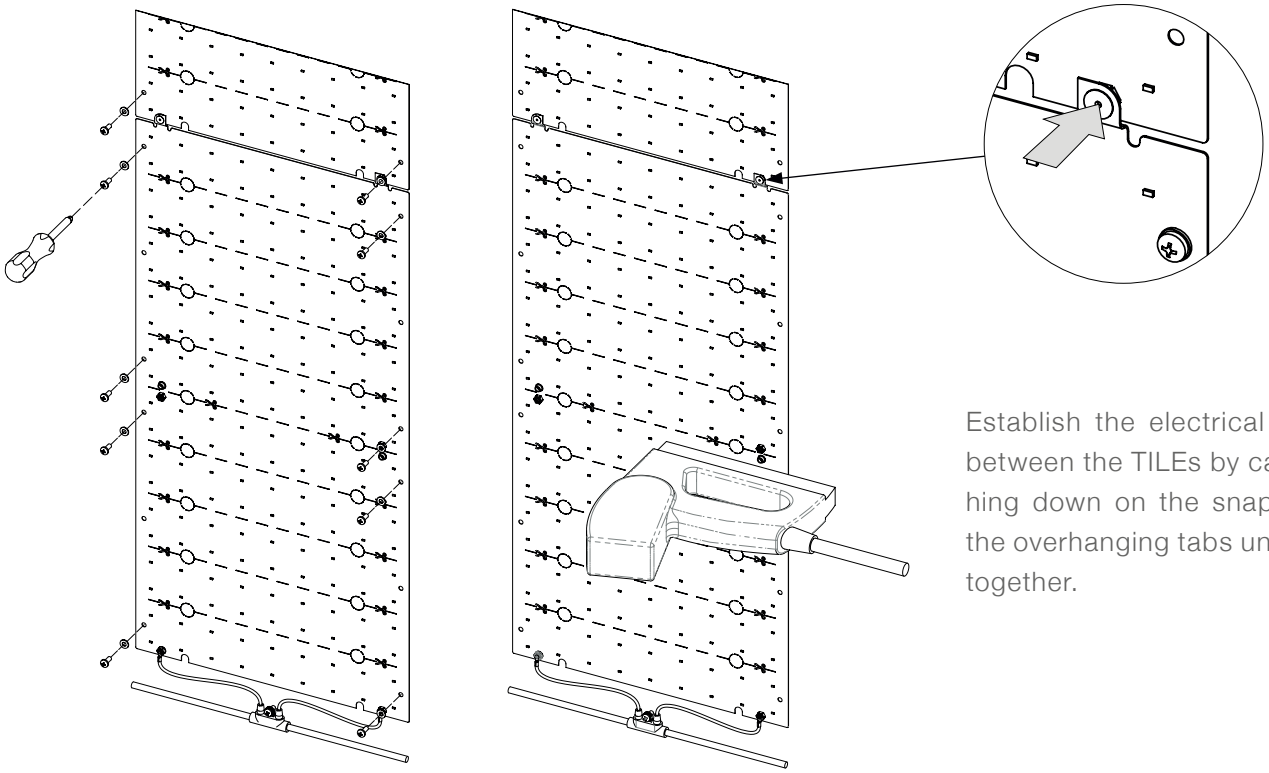


Sketch S76 - TILE Interior/Tunable White double-sided foam tape

Mechanical fasteners are required for installation of TILE. Either screws or staples may be used. For ceiling mounted applications or where flatness is critical it is recommended to also use the double sided tape which has been applied to the back of the sheets prior to applying the mechanical fasteners.

If using the tape, remove the liner from the tape and carefully place the TILE in position, one side at a time. The tape is pressure sensitive and must be pressed down firmly along its entire length in order to form a strong bond with the mounting surface.

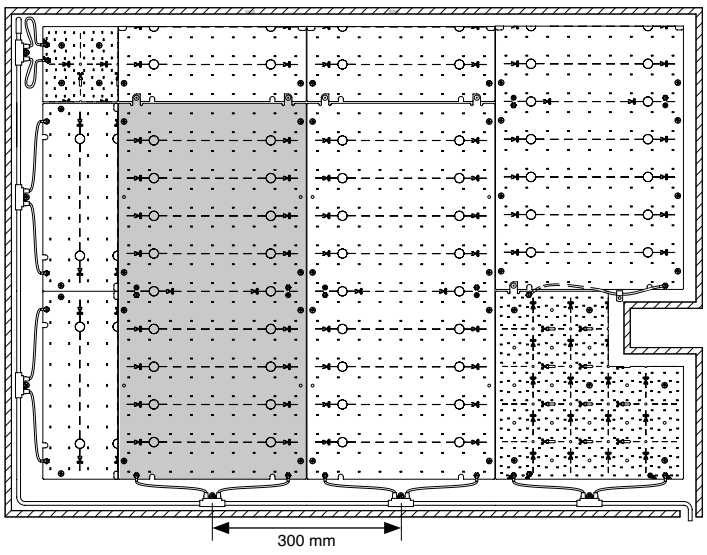
To install the individual TILEs, screws with plastic washers or an electric staple gun (12 mm) may be used. The individual sheets can be easily put together.



Establish the electrical connection between the TILEs by carefully pushing down on the snap-in tabs on the overhanging tabs until they click together.

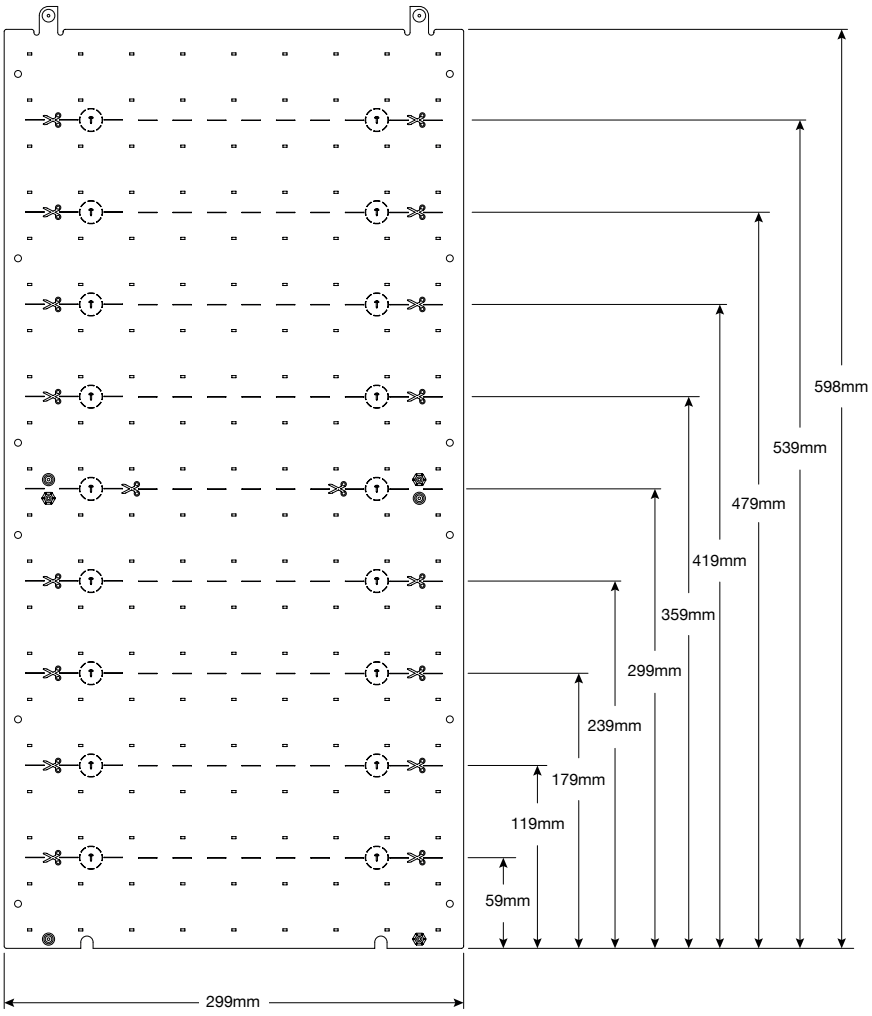
Sketch S77 - TILE installation

The TILE sheets are mounted directly on the most common, non-conductive building materials such as drywall or plywood. The systems can be adapted to any installation and even include obstacles and shapes.



Sketch S78 - TILE installation

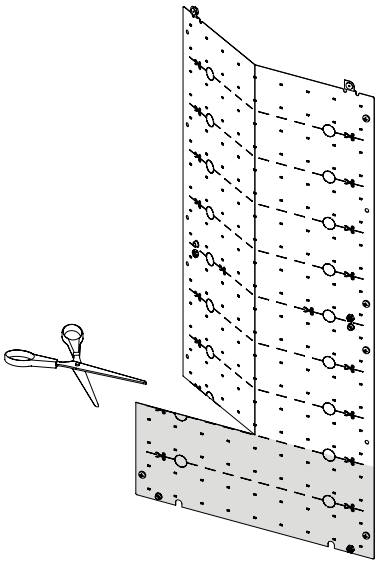
7.3 Cooledge TILE Cutting



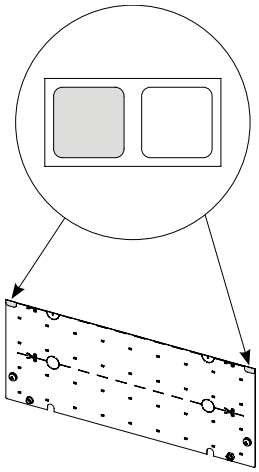
Sketch S79 - TILE Cutting dimensions

TILEs can be shortened if necessary. The truncated TILE must always be placed at the end. TILEs must be cut before assembly. Please use a pair of sharp scissors or a pair of metal shears. Carefully cut along the black line marked with the scissors symbol.
A TILE can be cut to a width of 300 mm x length from approx. 60 mm as shown in sketch S74.

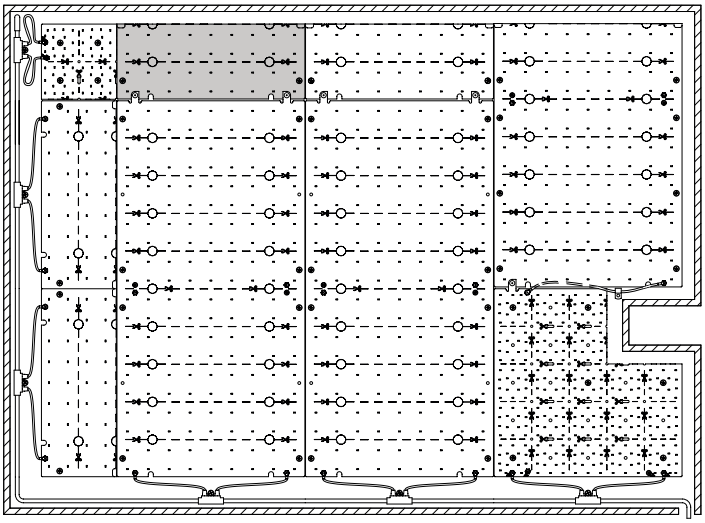
The TILEs can be tailored precisely to suit the surface to be illuminated. The shortened sheets should always be placed at the end of a run, as they can no longer be connected to another sheet. Cut TILEs before mounting.
Use sharp scissors to cut. Carefully cut along the black line indicated by the scissors symbol.



Sketch S80 - TILE Cutting

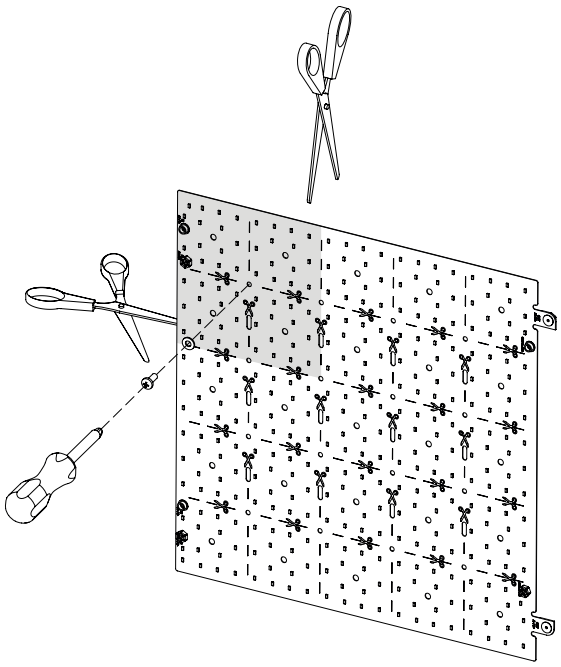


Sketch S81 - Corner isolation



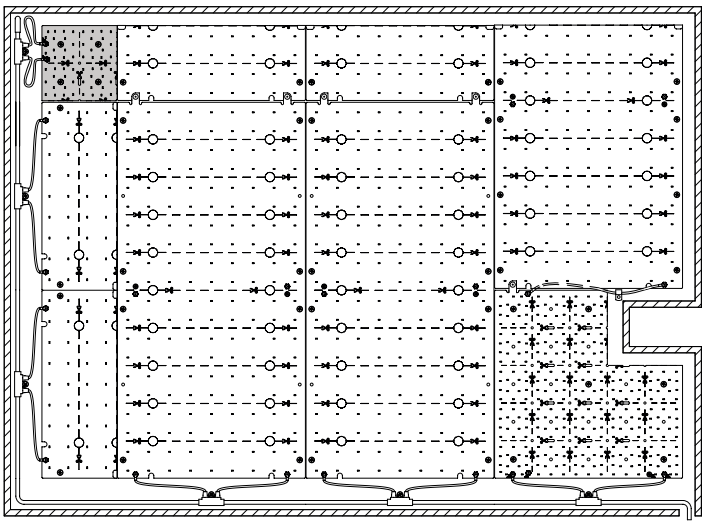
Sketch S82 - TILE Cutting installation

The cut edges are under tension. After cutting, the exposed edges of the electrical conductors must be insulated with the provided insulating patches.

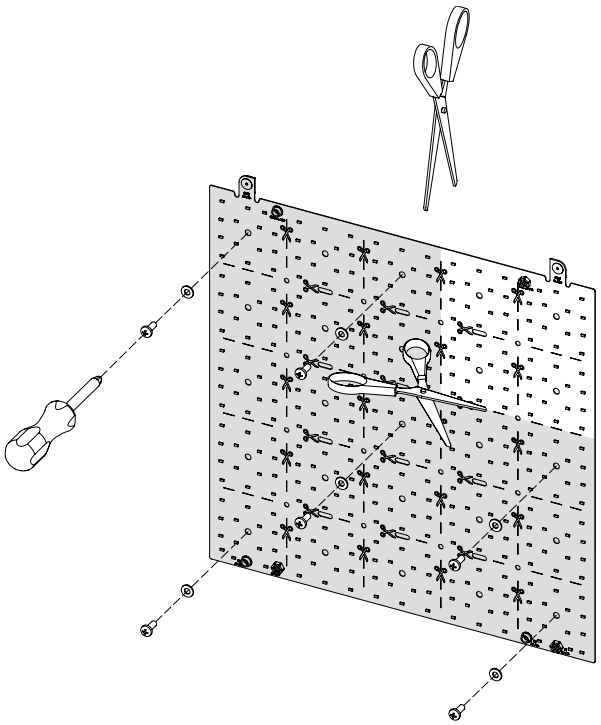


Sketch S83 - Cutout TILE

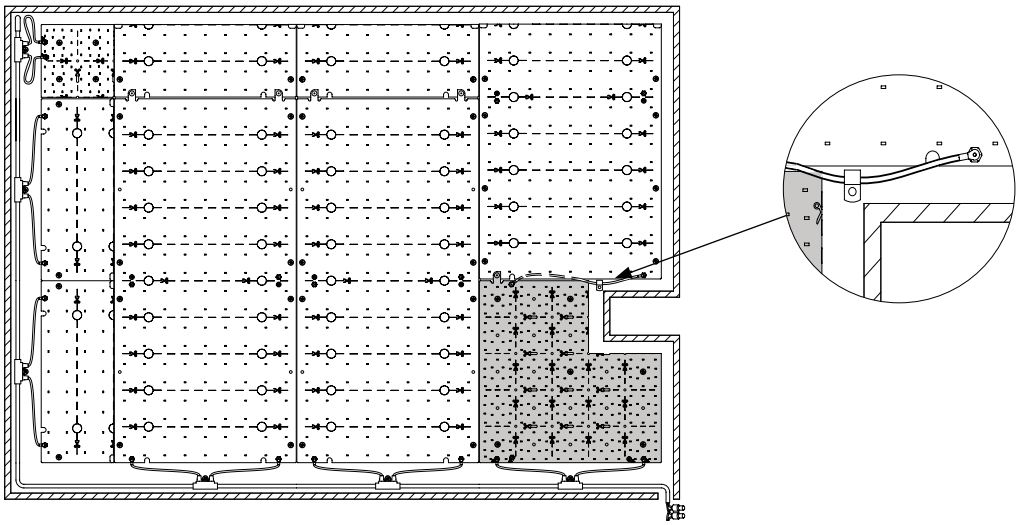
The smaller sheets can also be cut to size. Attention: Please attach these blanks only with screws and plastic washers. Please do not use an electric staple gun.



Sketch S84 - Cutout TILE installation

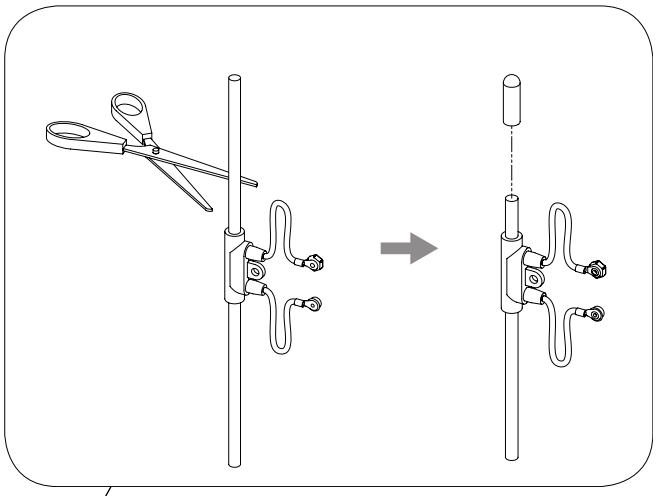


Sketch S85 - Cutout TILE

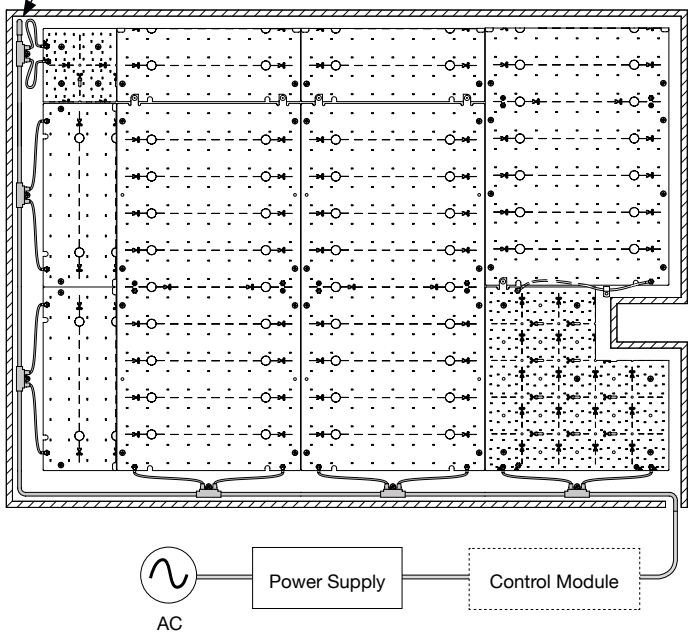


Sketch S86 - Cutout TILE installation

T-cables can be shortened as required. Cutting can be done anywhere on the cables except at the T-branches. After cutting, the cable end must be insulated with the T-cable end cap. Slide the end cap over the cable until the cable is fully inserted.

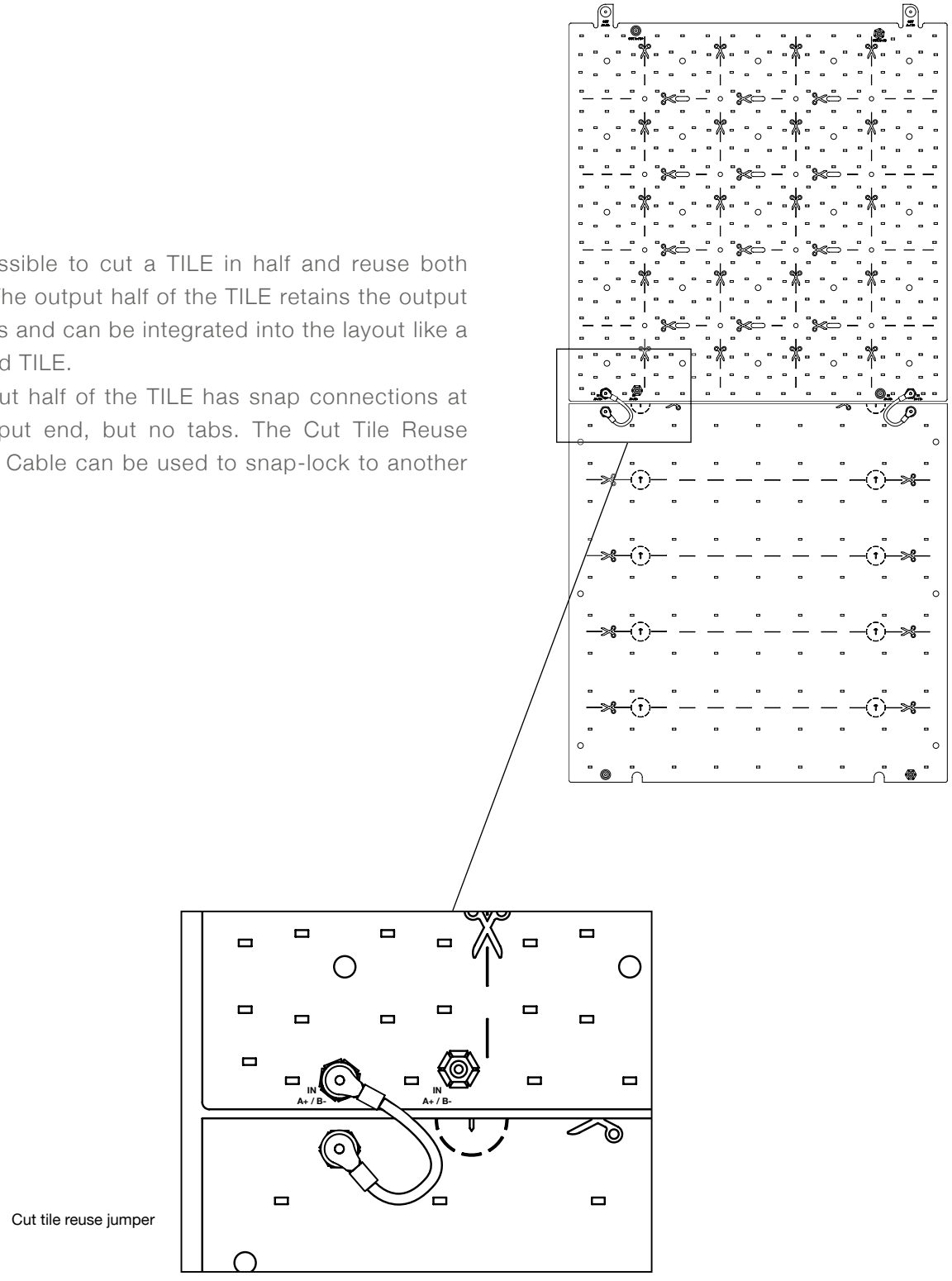


Sketch S87 - Cable cutting



Sketch S88 - Cable cutting installation

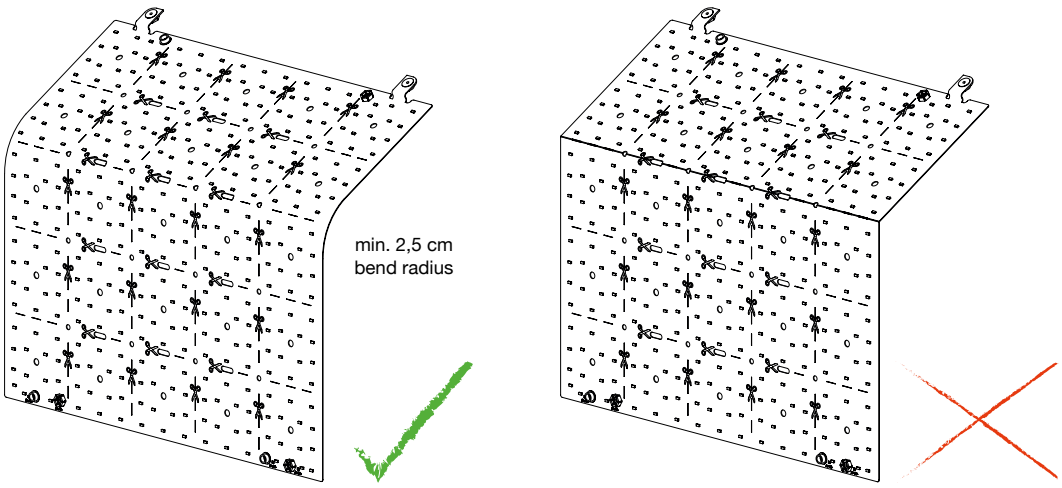
It is possible to cut a TILE in half and reuse both parts. The output half of the TILE retains the output surfaces and can be integrated into the layout like a standard TILE.
The input half of the TILE has snap connections at the output end, but no tabs. The Cut Tile Reuse Jumper Cable can be used to snap-lock to another sheet.



Cut tile reuse jumper

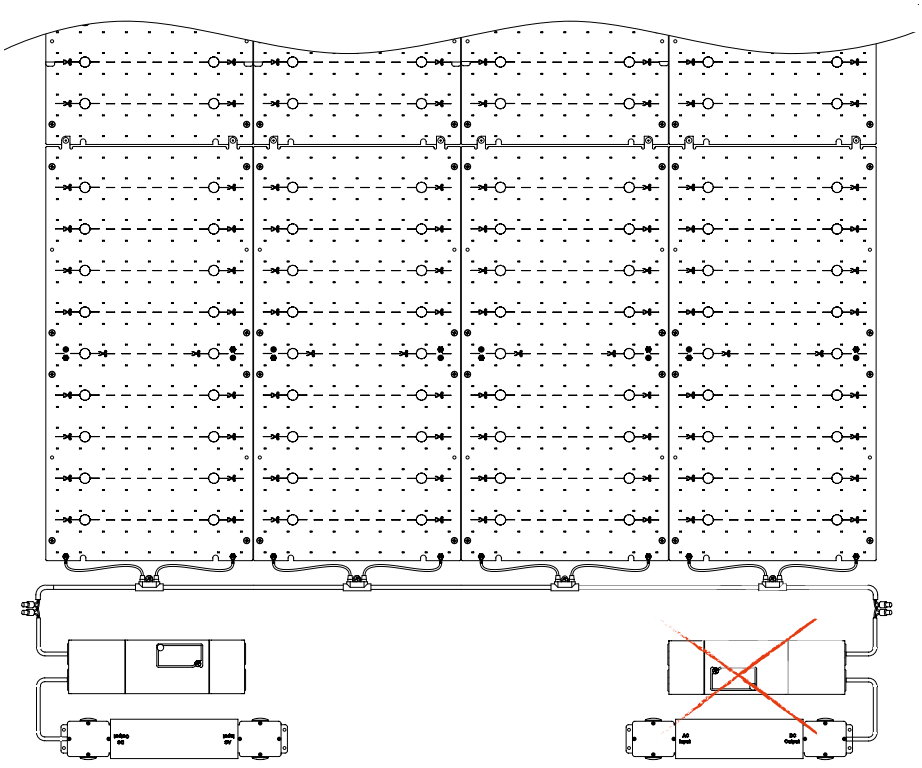
Sketch S89 - Cut TILE reuse jumper

7.4 Cooledge TILE Installation Instructions

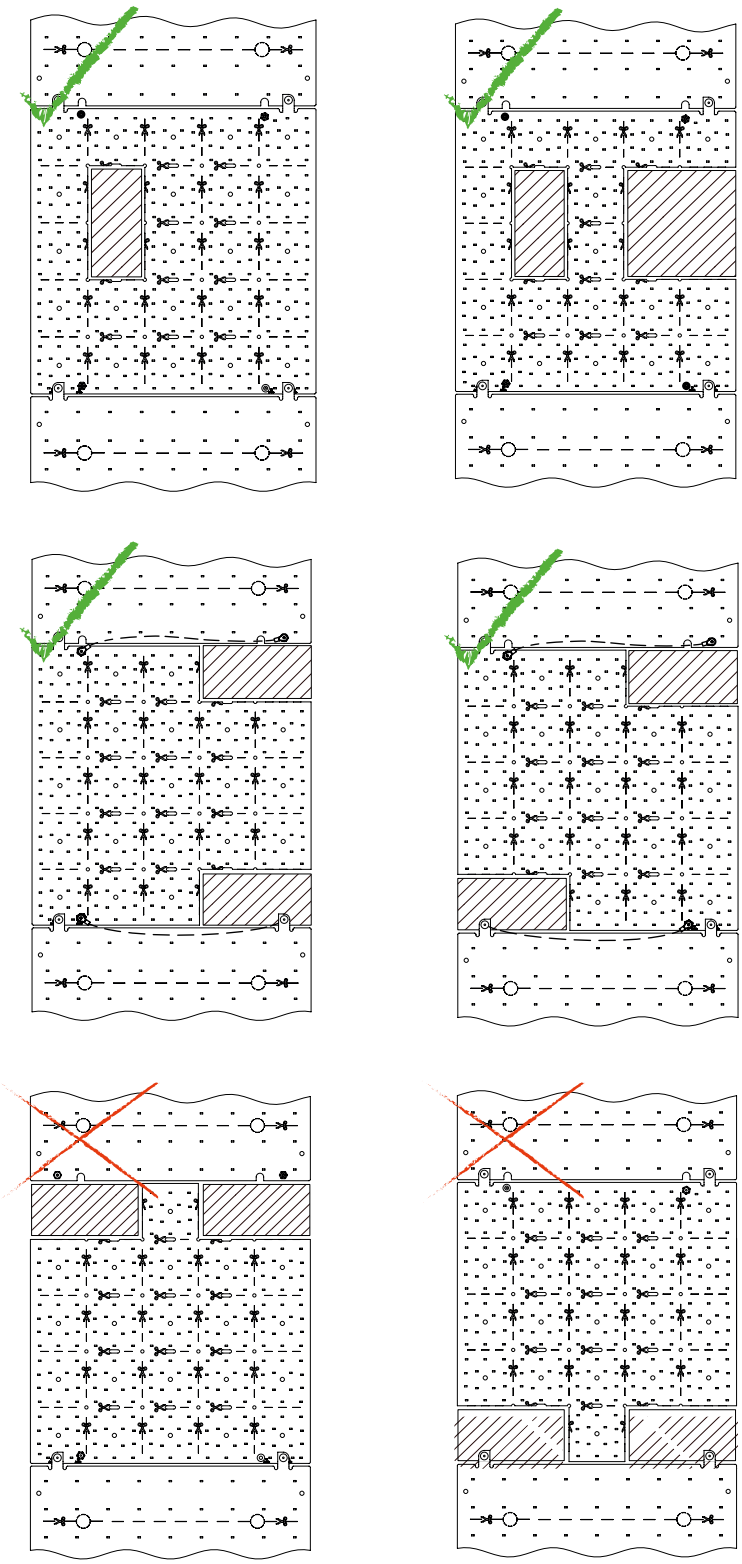


Sketch S90 - TILE bending

Never connect more than one power supply to a TILE circuit. A sheet circuit contains all TILEs that are in electrical contact with each other on the output side of the control module or the power supply.



Sketch S91 - Right system arrangement

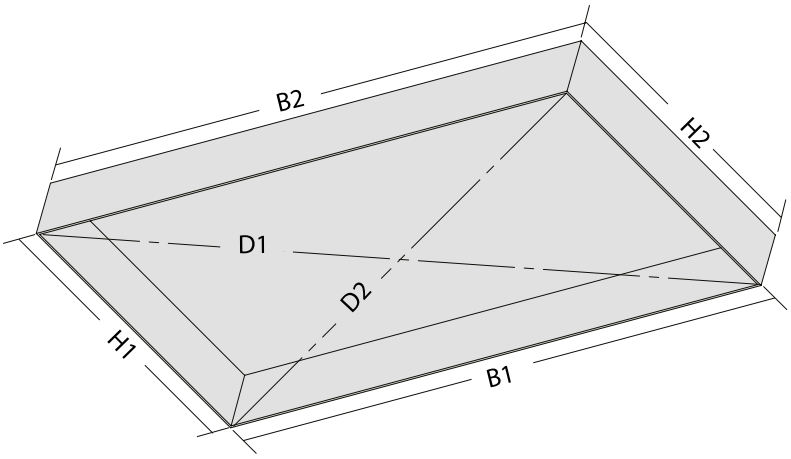


Sketch S92-97 - Possible edge cuttings

7.5 Tension LED System

1. Submit opening measurement

Please submit measurements for both widths, heights and diagonals after openings are fully competed including plastering, paint and reinforcements.



Sketch S98 - Submit opening measurement

2. Shop drawing approval

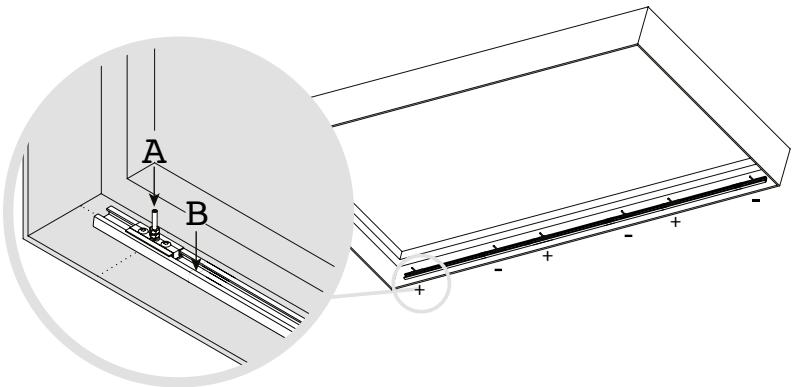
Shop drawings will be submitted for approval prior to the start of production.

3. U-Channel installation

Once your order is received, remove the parts from the package. Verify the number of components.

A. Align the set screw of the anchor according to the measurements in the shop drawing.

B. Screw the U-Channel in place.



Sketch S99 - Installation of the U-Channel

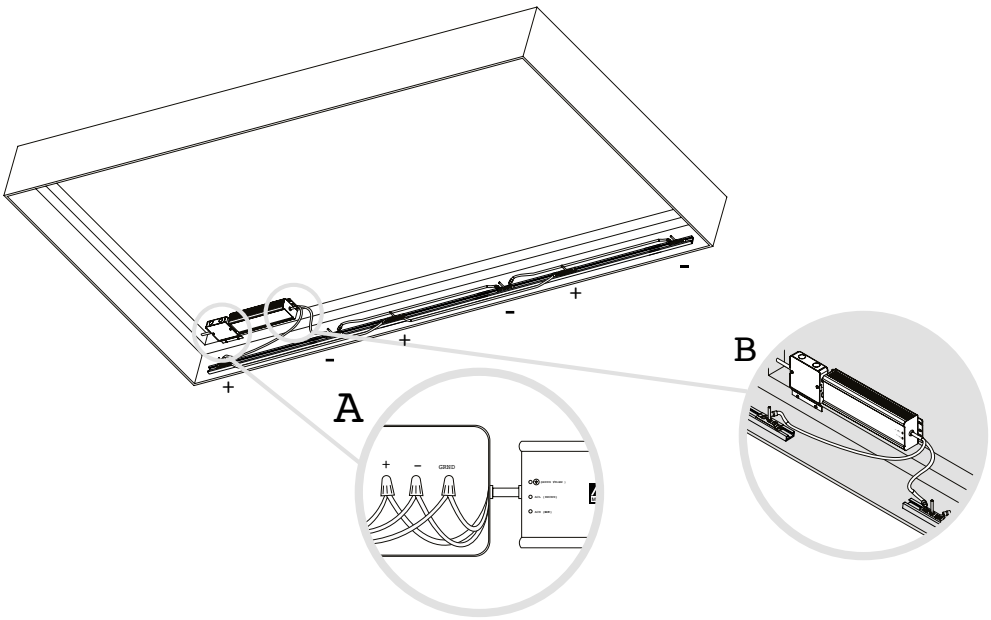
4. Electric wire bridge and driver

ATTENTION! Ensure that no voltage is present on all power wires.

A. Enclose the primary wires (line voltage). The proper AC input connections to the driver are marked on the driver. There is a Ground, ACN (Neutral) and ACL (Line).
B. Connect the DC output of the driver, red wire to the first positive (red) anchor and black wire to the first negative (black) anchor.

5. Driver adjustment

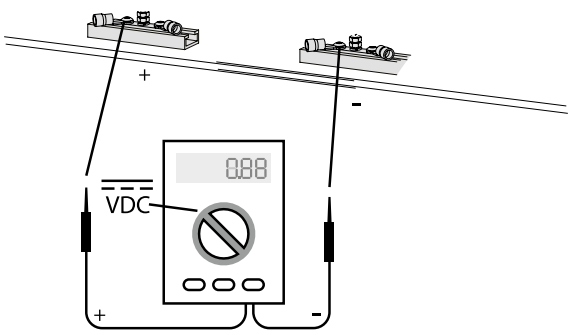
Test the output of the driver to achieve an output between 21-24 volts. Adjustments can be made on the driver.



Sketch S100 - Driver adjustment

6. Electrical testing

Test the voltage on each anchor to achieve an output of 24 volts.



Sketch S101 - Electrical testing

7. Unrolling the TLS

Unpackage and unroll each TLS column.

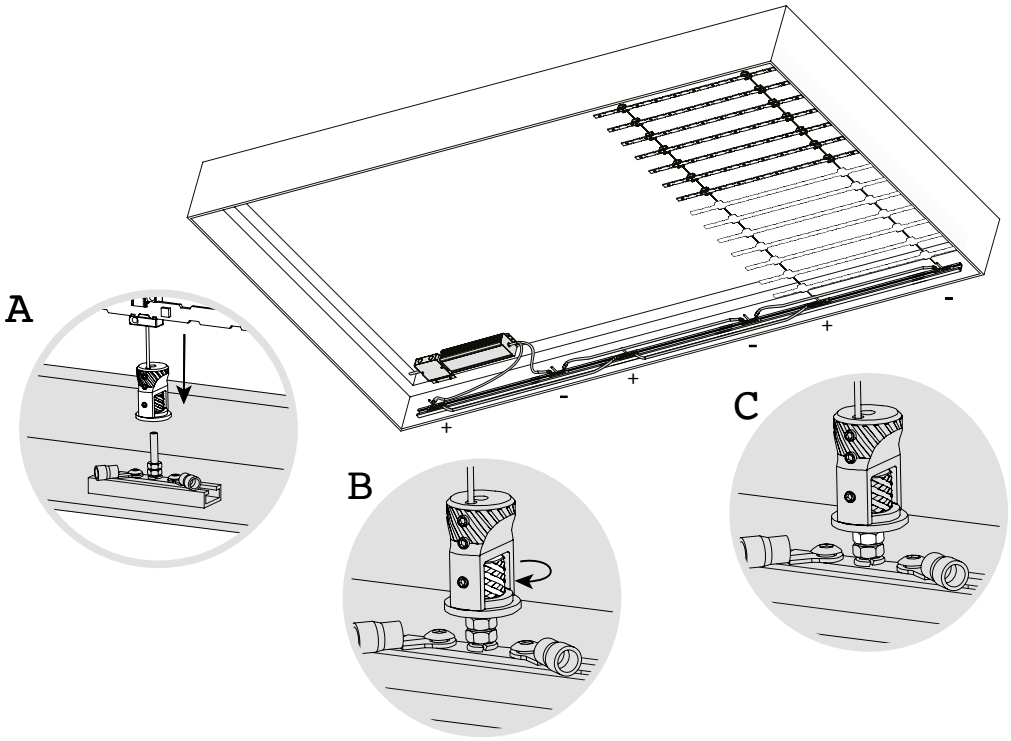
8. Column tensioning

Before starting, make sure to properly place the tensioners to the corresponding colored anchors (red to red, black to black)

A. Place the tensioners on the anchors.

B. Swivel the adjusting nut around the anchors set screw to connect the system. Ensure the system is tensioned to its maximum.

C. Adjust the locking nut to lock the tensioner in place.



Sketch S102 - Column tensioning

9. Turning on the system

Turn on the system at the breaker or disconnect switch.

10. Maintenance

If one board does not light up:

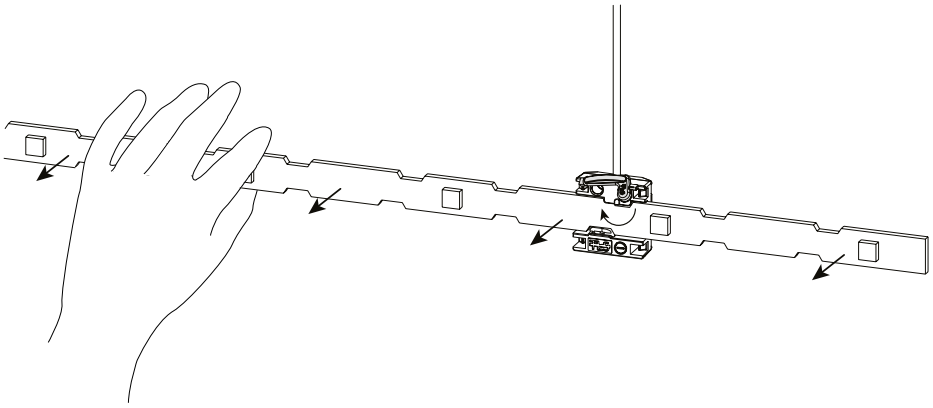
A. Remove the board and

B. Re-insert the board and lock in place.

C. Check the back of the PCB holder if loose.

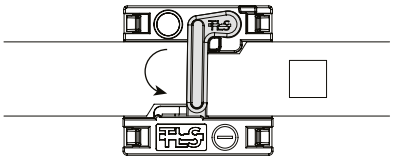
D. Replace the board.

A

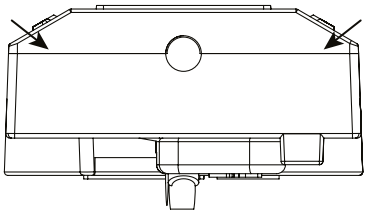


Sketch S103 - Remove the board

B

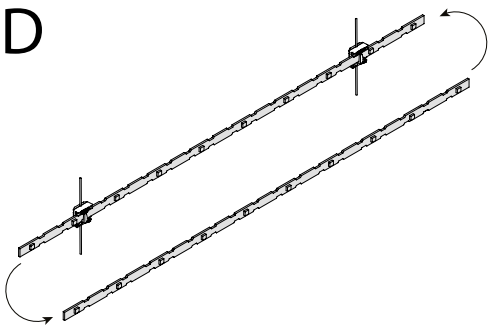


C



Sketch S104 - Re-insert the board and lock in place

D



Sketch S105 - Replace the board

8. Applications

Image B52 - Villa Mulhouse - Créations Sandrine Ziegler-Munck
DESCOR® PREMIUM Acoustic

Image B53-54 - Villa Mulhouse - Technical elements

Image B55 - Application example of „Reunion des Musées Nationaux“ images

Image B56 - Villa Mulhouse - DESCOR® PREMIUM Acoustic

Image B57 - Application example of „Reunion des Musées Nationaux“ images

Image B58 - Hôtel de Ville de Montpellier (Montpellier, France)
Architects: Jean Nouvel (Ateliers Jean Nouvel), Francois Fontès (Francois Fontès Architecture)
Implemented solution: Digitally printed DESCOR® PREMIUM Acoustic

Image B59 - Hôtel de Ville de Montpellier (Montpellier, France)
Architects: Jean Nouvel (Ateliers Jean Nouvel), Francois Fontès (Francois Fontès Architecture)
Implemented solution: Digitally printed DESCOR® PREMIUM Acoustic

Our locations

Location: Stadtlohn
PONGS Textil GmbH

Location: Düsseldorf
PONGS Group

Location: Mühltroff
PONGS Technical Textiles

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