



Trolldtekt[®] technical guide

Everything you need to know when installing
Trolldtekt acoustic solutions into a building



Welcome to the world of good acoustics

At Trolldtekt A/S, we are driven by a passion for people and the planet. We want to ensure good acoustics and contribute to a healthy indoor climate in buildings. However, we cannot do it alone.

This guide is for professionals working with installing Trolldtekt acoustic solutions into buildings. We've compiled our library of guides so you can easily get advice and guidance for specific scenarios in your project: whether you're deciding which Trolldtekt solutions are best for your project, or you've already chosen your products and are ready to install them.

Remember that when you choose Trolldtekt, you always receive personalised service as part of the package. You have easy access to local telephone support and our consultants are happy to work closely with you to help you find the right acoustic solution for your project and how to assemble it correctly.

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Introducing Troldekt

Troldekt cement-bonded wood wool combines the strength of cement with the natural properties of wood. Since 1935, we have followed this simple recipe to produce acoustic panels with a wide range of benefits for the indoor environment.

Wood

We use certified spruce from Danish forests – a renewable, carbon-neutral resource that can be traced back to responsible forestry operations (FSC®C115450 and PEFC/09-31-030).

Cement

Troldekt panels gain their strength and fire performance from cement. We use both traditional Portland cement and the patented FUTURECEM™ with a reduced carbon footprint.



7 good reasons for choosing Troldekt®

Good acoustics

The combination of wood and cement gives Troldekt acoustic panels a unique surface structure which absorbs sound and reduces reverberation time in a space. Good acoustics are important for wellbeing and crucial for a healthy indoor climate.

Documented sustainability initiatives

At Troldekt, we work to document the sustainability initiatives of our company and of our products. Troldekt acoustic panels have achieved gold certification under the internationally recognised Cradle to Cradle Certified® – and are thereby documented to be free of harmful substances.

Effective fire performance

In accordance with European standards for factory-made wood wool (WW) products and suspended ceilings, Troldekt is tested and classified for 'reaction to fire' according to EN 13501-1:2018. As the wood wool in Troldekt acoustic panels is encapsulated in cement, Troldekt has low flammability and emits very little heat during a fire and almost no smoke.

Healthy indoor climate

Troldekt is a breathable material that can absorb and release moisture. The acoustic panels have achieved leading Danish and international indoor climate certifications, including Danish Indoor Climate Labelling (Denmark), the Allergy Friendly Product Award (United Kingdom), M1 classification (Finland) and Der Blaue Engel (Germany)

Robust and durable

Troldekt combines the strength of cement with the flexibility of wood. Troldekt is a durable and robust material with a service life of at least 50 years - even in demanding environments.

Easy installation

Troldekt acoustic panels are easily installed – either directly on wooden battens or as a suspended ceiling in a profile system. Once in use, the panels are easy to maintain, repaint or repair.

A personalised service

When you choose Troldekt, a personalised service is always part of the package. It has been this way since 1935. You have easy access to local phone support, product samples and technical documentation. Our consultants are happy to work closely with you to help you find the right acoustic solution for your project.



- ① Extreme fine structure (0.5 mm)
- ② Ultrafine structure (1.0 mm)
- ③ Fine structure (1.5 mm)

Choice of structures and colours

You have the option of choosing an acoustic ceiling in three structures for different visual appeal. You can also choose whether the ceiling should be an extension of natural colours, classic white or a more atmospheric colour.

The characteristic Troldekt structure is determined by the thickness of the wood wool. Troldekt panels are available in extreme fine (0.5 mm wood wool), ultrafine (1.0 mm) and fine (1.5 mm) structure.

Colours: Two basic variants

Troldekt acoustic panels are available in two basic variants:

- > natural grey (FUTURECEM™), based on the CO₂ reduced cement type FUTURECEM
- > natural wood based on white cement

Both types of basic panels are available unpainted or painted in standard or custom colours. All Troldekt panels in natural and standard colours are Cradle to Cradle Certified® at gold level.

Troldekt in natural grey (FUTURECEM)

Troldekt based on FUTURECEM is suitable as a base panel for painting with both light and dark colours. However, if you choose white 101 (FUTURECEM),

you will find that the white-painted panel will have a slightly darker colour tone than if you choose white 101 on a natural wood base panel.

Unpainted Troldekt panels in natural grey (FUTURECEM) can vary in colour – both across the individual panel and from panel to panel.

Troldekt in natural wood

Troldekt in natural wood has the warm hue and natural colour variation of wood. The panels can vary in colour – both across the individual panel and from panel to panel as, for example, do wooden floors, for example. In our experience, Troldekt in natural wood lightens slightly over time so that any colour variations become less pronounced.

If you want your acoustic panels in a dark colour, we recommend that you choose panels based on FUTURECEM.

Natural wood



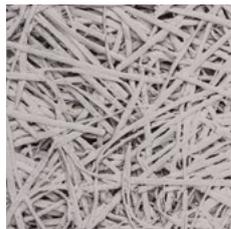
Natural grey (FUTURECEM)



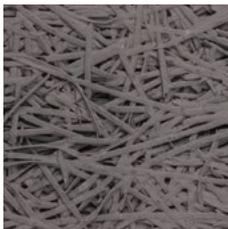
Clay 210



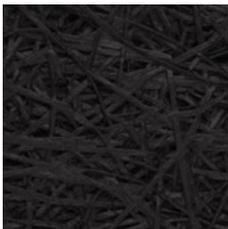
White 101



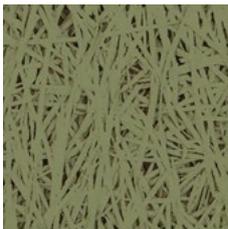
Grey 202



Grey 208



Black 207

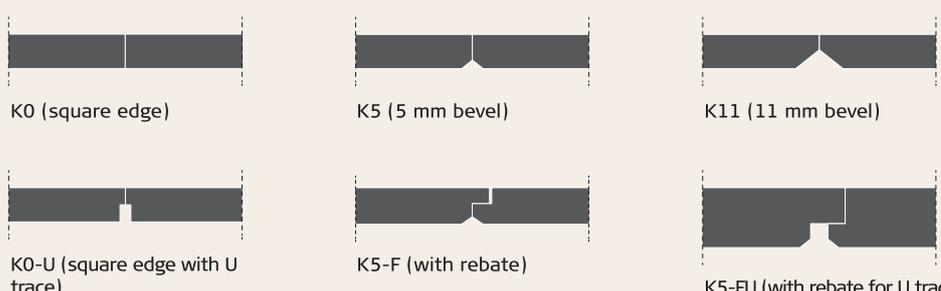


Custom colours of your choice

An acoustic solution with the right edge

Square edge, groove, bevel or rebate. The edge profile of your acoustic panels has a big impact on the overall look. The selection of edge profiles depends, among other things, on the installation method you choose.

INSTALLATION WITH SCREWS

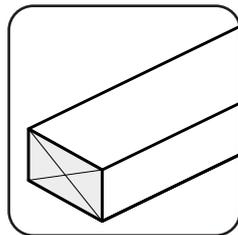


K0 (square edge) K5 (5 mm bevel) K11 (11 mm bevel)

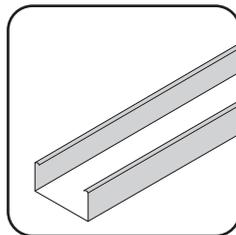
K0-U (square edge with U trace) K5-F (with rebate) K5-FU (with rebate for U trace)



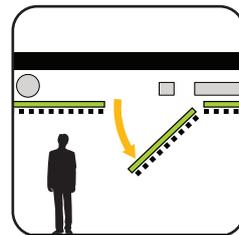
Installed with:
Screws



Substrate #1:
Wooden battens



Substrate #2:
C60 Profiles

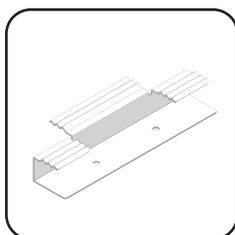


Demountability
Access panels for C60 profiles

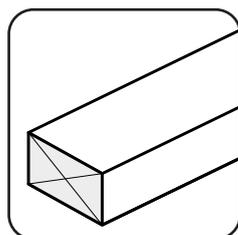
INSTALLATION WITH CONCEALED KN-BRACKETS



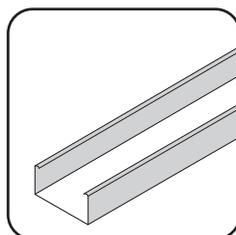
K0-N K5-N K11-N



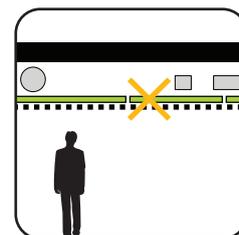
Installed with:
KN-brackets



Substrate #1:
Wooden battens

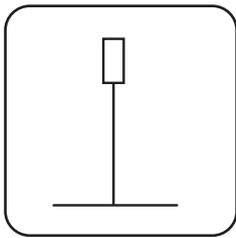
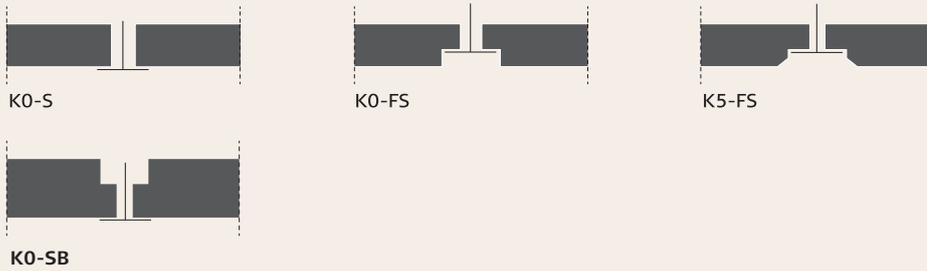


Substrate #2:
C60 Profiles



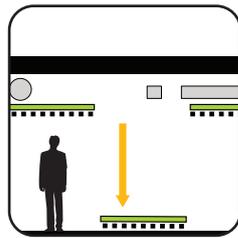
Demountability
Not demountable

REMOVABLE INSTALLATION WITH EXPOSED T PROFILES (T24 AND T35 PROFILES)



Installed with:

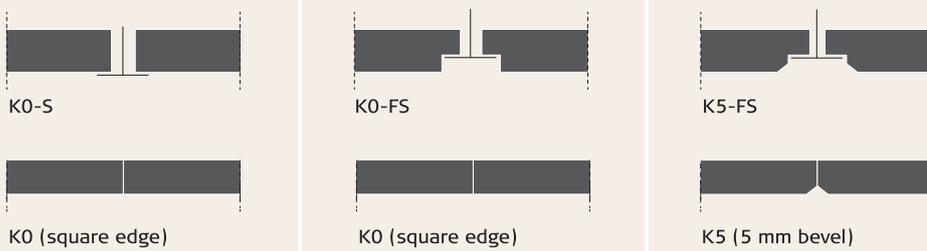
Visible T24 or T35 profile systems. Visible main profiles & cross profiles



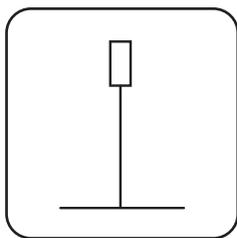
Demountability

Fully demountable

REMOVABLE INSTALLATION WITH **EXPOSED LONGITUDINAL T PROFILES** (SPECIAL T35-PROFILE SYSTEM)

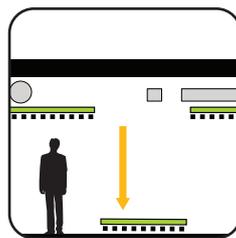


REMOVABLE INSTALLATION WITH **CONCEALED LONGITUDINAL T PROFILES** (SPECIAL T35-PROFILE SYSTEM)



Installed with:

T35 special profile system (no cross T-profiles)



Demountability

Approx. 50% of panels will be demountable.

Product range

12-15	Troldtekt® acoustic
16-19	Troldtekt® Plus
20-23	Troldtekt® A2
23-27	Troldtekt® design solutions



Project: Danish Crown headquarters,
Randers, Denmark

Troldtekt solution: Troldtekt line





Project: Kulturhuset Cosmos in Viby Sj., Denmark
Architects: Christensen & Co Architects, Primus Arkitekter
Troldtekt solution: Troldtekt acoustic panels and Troldtekt Plus
Photo: Helene Høyer Mikkelsen, architect MAA

Troldekt® acoustic

Troldekt acoustic can be used for ceiling and wall cladding in most types of buildings.

Troldekt acoustic are our classic acoustic product which is a popular choice in offices, schools, institutions, sports centres, cultural venues, residential and many other types of buildings.

Troldekt acoustic are CE-marked under both the European standard for factory made wood wool (WW) products (EN 13168:2012+A1:2015) and the European standard for suspended ceilings (EN 13964:2014).

Troldekt acoustic are fire-tested in accordance with EN 13823:2020+A1:2022 and classified in accordance with EN 13501-1:2018 'Reaction to fire'.

Troldekt is approved for the following classifications:

- Troldekt acoustic: B-s1, d0
- Troldekt A2: A2-s1, d0

Troldekt further fulfils national and international requirements such as smouldering and covering (K1-10).

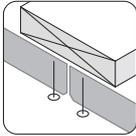
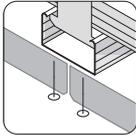
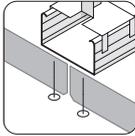
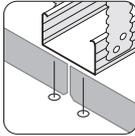
Ensures optimum acoustics

Troldekt acoustic can be installed as ceiling and wall cladding. As an acoustic ceiling, the panels are installed directly on battens or in a suspended profile system, and often with a mineral wool or special acoustic fleece backing for optimum sound absorption.

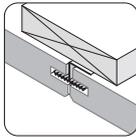
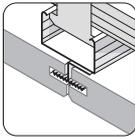
In rooms with particular acoustic requirements, for example in institutions and swimming baths, installing Troldekt panels on both the ceilings and some of the walls is a simple solution. Depending on the surface, panel thickness, suspension height of the ceiling and selected acoustic backing, it is possible to achieve sound absorption coefficients of up to $\alpha_w = 1.0$, which corresponds to 100 per cent.



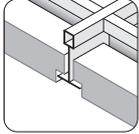
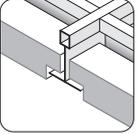
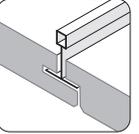
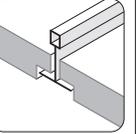
Installation with screws

EDGE	SUSPENSION				MODULE DIMENSIONS				THICKNESS		
									15 mm	25 mm	35 mm
 K0 (square edge)	●	●	●	●	●	●	●	●	●	●	●
 K5 (5 mm bevel)	●	●	●	●	●	●	●	●	●	●	●
 K11 (11 mm bevel)	●	●	●	●	●	●	●	●	●	●	●
 K0-U (square edge with U trace)	●	●	●	●	●	●	●	●	●	●	●
 K5-F (with rebate)	●	●	●	●	●	●	●	●	●	●	●
 K5-FU (with rebate for shiplap)	●	●	●	●	●	●	●	●	●	●	●

Installation with concealed KN-brackets

EDGE	SUSPENSION		MODULE DIMENSIONS				THICKNESS	
							25 mm	35 mm
 K0-N	●	●	●	●	●	●	●	●
 K5-N	●	●	●	●	●	●	●	●
 K11-N	●	●	●	●	●	●	●	●

Installation in T profiles

EDGE	SUSPENSION				MODULE DIMENSIONS				THICKNESS			NOTE
					600 x 600	600 x 1190	600 x 1200	600 x 2400	15 mm	25 mm	35 mm	
												
 K0-S	●	●		●	●		●		●	●		
 K0-FS	●	●		●	●		●			●	●	1) 2)
 K5-FS	●	●		●	●		●			●	●	1) 2)
 K0-SB	●				●		●				●	1)
 K5-FN			●		●		●				●	1)

- For installation in exposed, longitudinal T35 profiles as well as installation in suspended, concealed T35 profiles, the edge design of the panel is different on the short and long sides
- Panels measuring 600 x 600 mm are not compatible with exposed, longitudinal T35 profiles

Please note that the above overview is indicative and that certain combinations of structures, colours etc. are not available for all products



Technical data sheets can be found at troldekt.com

Scan the QR code to go directly to the brochures at troldekt.com



Project: KNUDEN - Kristiansand cultural educations, Norway

Troldtekt solution: Troldtekt line, Troldtekt acoustic

Photography: Tommy Kosior, Troldtekt A/S

Troldekt® Plus

Troldekt Plus is a two-layer acoustic panel with either an acoustic fleece liner or a backing layer of sealed mineral wool. You can retrofit the solution to an existing ceiling or use it for a suspended, demountable acoustic ceiling in combination with many different systems.

Troldekt Plus is a two-layer panel comprising a Troldekt cement-bonded wood wool panel with a laminated backing layer. This ensures enhanced acoustic effects and up to 100 per cent sound absorption.

Because Troldekt Plus comprises both an acoustic panel and a backing layer, both can be assembled in a single workflow. This offers enhanced acoustics while saving time on site.

Troldekt Plus is an optimal solution for removable ceilings if access is required to the services above. In profile systems such as Troldekt T35 for concealed or exposed installation, you simply tilt the acoustic panel upwards to inspect and maintain installations.

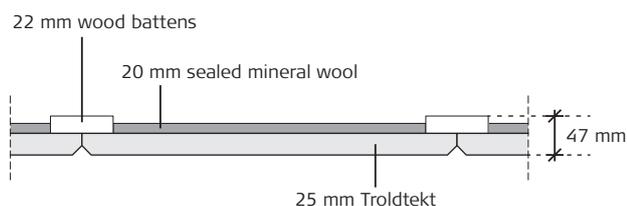
Troldekt Plus Mineral Wool

With this solution, the backing comprises a layer of sealed mineral wool of either 20 or 40 mm, ensuring optimal sound absorption. The panel itself is 25 or 35 mm thick. The backing layer is cut to size and set back from the panel edges so that it fits between profiles or wooden battens.

The solution also saves space, because, with a total construction height for the suspended ceiling of only 47 mm, you achieve almost the same sound absorption as with a suspended Troldekt ceiling where acoustic panels with mineral wool backing have been used.

47 mm

You can install 45 mm Troldekt Plus directly on 22 mm wooden battens on an existing ceiling – thereby only lowering the ceiling height by 47 mm.



Construction: 45 mm Troldekt Plus (25 mm Troldekt + 20 mm mineral wool) installed on 22 mm wooden battens. Installation height: 47 mm. Troldekt Plus is also available with a thickness of 55 mm, where the installation height is then 57 mm.

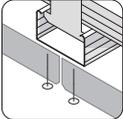
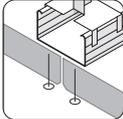
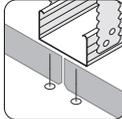


Troldekt Plus Fleece

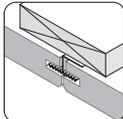
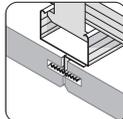
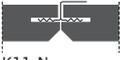
With this option, the backing comprises a thin acoustic fleece liner, ensuring high acoustic performance at minimal thickness. Troldekt Plus Fleece is available in thicknesses of 15, 25 or 35 mm and weighs as little as 7.3 kg/m². This makes it easier to transport, stack, cut and lift during installation.

Troldekt Plus Fleece is suitable for suspended ceilings with almost any suspension depth but, ideally, 200 mm. With this solution you can significantly improve the room's acoustics compared to the classic Troldekt panels without backing.

Installation with visible screws

EDGE	SUSPENSION				MODULE DIMENSIONS				THICKNESS				NOTE		
									15 mm (Fleece)	25 mm (Fleece)	35 mm (Fleece)	25 + 20 mm (Mineral wool)		25 + 40 mm (Mineral wool)	35 + 20 mm (Mineral wool)
 K0 (square edge)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1) 2)
 K5 (5 mm bevel)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1) 2)
 K11 (11 mm bevel)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1) 2)
 K0-U (square edge with U trace)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1) 2)
 K5-F (with rebate)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1) 2)
 K5-FU (with rebate for shiplap)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1) 2)

Installation with concealed KN-brackets

EDGE	SUSPENSION		MODULE DIMENSIONS				THICKNESS				NOTE			
							15 mm (Fleece)	25 mm (Fleece)	35 mm (Fleece)	25 + 20 mm (Mineral wool)		25 + 40 mm (Mineral wool)	35 + 20 mm (Mineral wool)	35 + 40 mm (Mineral wool)
 K0-N	●	●	●	●	●	●	●	●	●	●	●	●	●	1) 3)
 K5-N	●	●	●	●	●	●	●	●	●	●	●	●	●	1) 3)
 K11-N	●	●	●	●	●	●	●	●	●	●	●	●	●	1) 3)

Installation in T profiles

EDGE	SUSPENSION				MODULE DIMENSIONS				THICKNESS				NOTE		
	Removable installation in suspended, exposed T24 profiles	Removable installation in suspended, exposed T35 profiles	Removable installation in suspended, concealed T35 profiles	Removable installation in exposed, longitudinal T35 profiles	600 x 600	600 x 1190	600 x 1200	600 x 2400	15 mm (Fleece)	25 mm (Fleece)	35 mm (Fleece)	25 + 20 mm (Mineral wool)		25 + 40 mm (Mineral wool)	35 + 20 mm (Mineral wool)
	●	●		●	●		●		●	●		●	●		
	●	●		●	●		●			●		●	●		4) 5)
	●	●		●	●		●			●		●	●		4) 5)
	●				●		●				●				
			●		●		●				●		●		4)

1. The wooden battens for Troldekt Plus 25+40 mm and 35+40 mm must measure min. 45 x 95 mm.
2. Troldekt Plus 25+40 mm and 35+40 mm cannot be used together with a C60 steel profile system (two-layer). Instead, use C60 profiles as single layer suspended with quick-fit/adjustable suspension brackets (in the latter case, there must be a hanging distance of min. 45 mm).
3. Troldekt Plus 25+40 mm and 35+40 mm cannot be installed with concealed KN brackets on a suspended C60 steel profile system.
4. For installation in exposed, longitudinal T35 profiles as well as installation in suspended, concealed T35 profiles, the edge design of the panel is different on the short and long sides.
5. Panels measuring 600 x 600 mm are not compatible with exposed, longitudinal T35 profiles.

Please note that the above overview is indicative, and that certain combinations of structures, colours etc. are not available for all products



Technical data sheets can be found at troldekt.com

Scan the QR code to go directly to the brochures at troldekt.com



Projekt: Trolldtekt A/S, Tranbjerg, Denmark
Trolldtekt solution: Trolldtekt line A2
Photo: Tommy Kosior, Trolldtekt A/S

Troldekt® A2

Troldekt A2 is a non-combustible acoustic panel for buildings with particularly high fire protection needs and for specifications requiring the use of A2-s1,d0 products.

Wood is an organic and combustible material and every single wood fibre at Troldekt is encased and thus protected by non-combustible cement. Troldekt panels are therefore a flame-retardant product that emits low levels of heat and generate hardly any smoke in the event of a fire.

Troldekt A2 is classified as an A2-s1,d0 product in Troldekt's range of wood wool panels, as the panel is made with special cement.

First-class fire protection

Troldekt A2 is a single-layer panel used in rooms with particularly high fire protection needs and for specifications requiring the use of A2-s1,d0 products – such as escape routes.

Troldekt A2 acoustic panels have a fire rating class A2-s1,d0.

- The classification ranges from A1 to F, with A1 being the best.
- The s describes the degree of smoke development and ranges from s1, the best class, to s3.
- The d describes flammable droplets, with the scale ranging from d0, the best, through to d2.

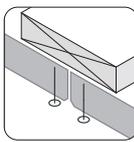
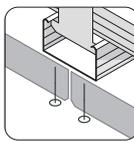
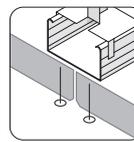
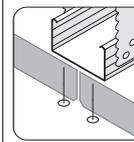
Identical look as classic Troldekt acoustic panels

Fire protection class A2-s1,d0 is achieved without the addition of flame retardants. This means that Troldekt A2 and the classic Troldekt acoustic panels have the same look. The acoustics-regulating properties are also the same, with Troldekt A2 having a higher density.

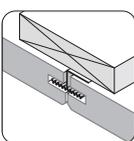
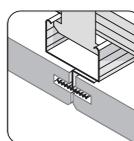
The identical look means that two types of panel can be combined in the same building without compromising on design aesthetic.



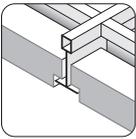
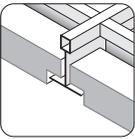
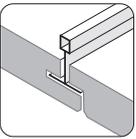
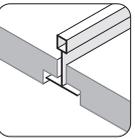
Installation with visible screws

EDGE	SUSPENSION				MODULE DIMENSIONS				THICKNESS	
									25 mm	35 mm
 K0 (square edge)	●	●	●	●	●	●	●	●	●	●
 K5 (5 mm bevel)	●	●	●	●	●	●	●	●	●	●
 K11 (11 mm bevel)	●	●	●	●	●	●	●	●	●	●
 K0-U (square edge with U trace)	●	●	●	●	●	●	●	●	●	●
 K5-F (with rebate)	●	●	●	●	●	●	●	●	●	●
 K5-FU (with rebate for shiplap)	●	●	●	●	●	●	●	●	●	●

Installation with concealed KN brackets

EDGE	SUSPENSION		MODULE DIMENSIONS				THICKNESS	
							25 mm	35 mm
 K0-N	●	●	●	●	●	●	●	●
 K5-N	●	●	●	●	●	●	●	●
 K11-N	●	●	●	●	●	●	●	●

Installation in T profiles

EDGE	SUSPENSION				MODULE DIMENSIONS				THICKNESS			NOTE
									15 mm	25 mm	35 mm	
 K0-S	●	●		●	●		●		●	●		
 K0-FS	●	●		●	●		●			●	●	1) 2)
 K5-FS	●	●		●	●		●			●	●	1) 2)
 K0-SB	●				●		●				●	
 K5-FN			●		●		●				●	1)

- For installation in exposed, longitudinal T35 profiles as well as installation in suspended, concealed T35 profiles, the edge design of the panel is different on the short and long sides
- Panels measuring 600 x 600 mm are not compatible with exposed, longitudinal T35 profiles

Please note that the above overview is indicative and that certain combinations of structures, colours etc. are not available for all products



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Troldekt® design solutions

Enjoy the freedom to unite form and function in interior design. Choose one of the distinctive solutions from our award-winning design series.

Troldekt design solutions give you the freedom to combine good acoustics and a healthy indoor climate with a distinctive look. You can create your own patterns and rhythms in the design – and vary and scale the individual design solutions.

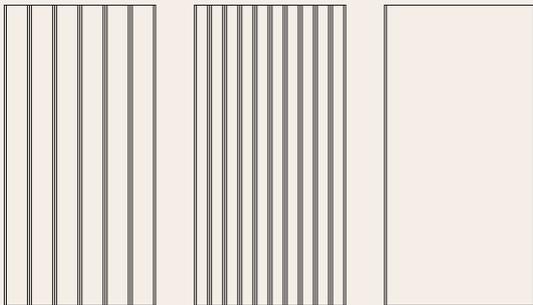
The design solutions are industrially produced with, for example, grooves milled into the surface, creating

patterns or special dimensions. All the solutions are designed to create a sense of coherence on ceilings or walls. In short, it's not about the panel, but the surface.

Very flexible

Troldekt design solutions are intended to offer architects and clients the greatest possible flexibility when designing ceiling and wall surfaces with good acoustic properties.

Troldekt® v-line 1way

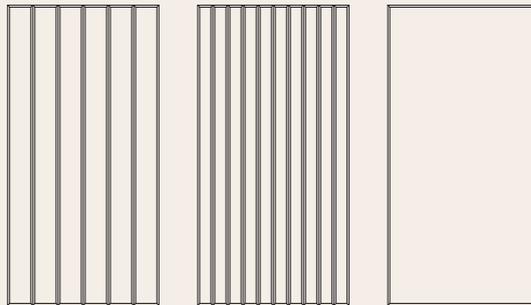


Troldekt v-line 1way 6

Troldekt v-line 1way 10

Troldekt v-line 1way blank

Troldekt® v-line 2way

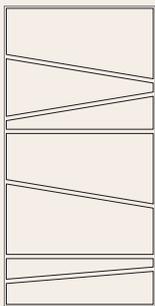


Troldekt v-line 2way 6

Troldekt v-line 2way 10

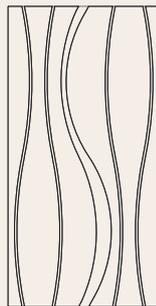
Troldekt v-line 2way blank

Troldekt® tilt line



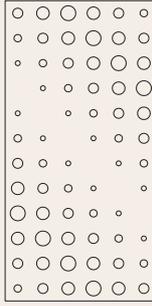
Troldekt tilt line 7

Troldekt® curves



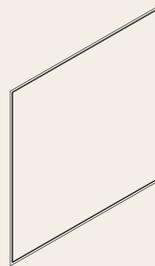
Troldekt curves

Troldekt® dots



Troldekt dots

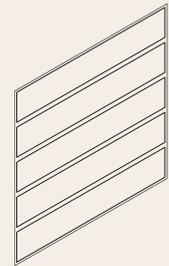
Troldekt® rhombe



Troldekt rhombe

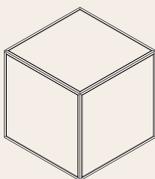


Troldekt rhombe hatch, left

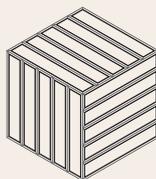


Troldekt rhombe hatch, right

Troldekt® rhombe mini



Troldekt rhombe mini



Troldekt rhombe hatch mini

Some of the solutions dovetail perfectly with Nordic design – featuring straight lines and angles – while others are more expressive.

Most of the design solutions were launched in 2019 and based on 35 mm thick Troldekt acoustic panels, the majority of which are machined using CNC technology.

In 2022, two new solutions were added to the range: Troldekt v-line 1way and Troldekt v-line 2way. These feature discreet v-shaped grooves and are based on classic 25 mm panels. Troldekt v-line panels weigh less and can be produced at an even more competitive price.

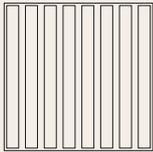


Download the brochure on troldekt.com

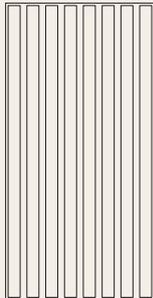
Under the menu item 'Web tools & downloads' on our website, you can find a brochure on Troldekt's series of design solutions.

Scan the QR code to go directly to the brochures at troldekt.com

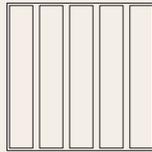
Troldekt® tiles T24



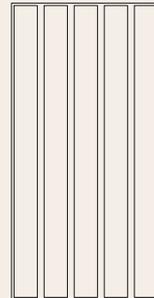
Troldekt tiles 8, T24



Troldekt tiles 8, T24



Troldekt tiles 5, T24



Troldekt tiles 5, T24

Troldekt® tiles



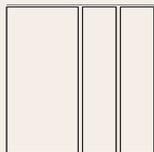
Troldekt tiles
4 + 4



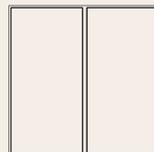
Troldekt tiles
2 + 4



Troldekt tiles
2 + 2

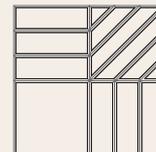


Troldekt tiles
1 + 2



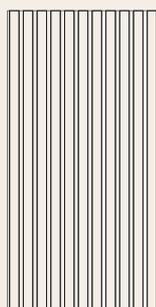
Troldekt tiles
1 + 1

Troldekt® puzzle



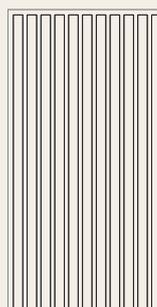
Troldekt puzzle

Troldekt® line



Troldekt line

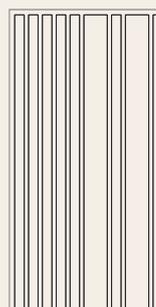
Troldekt® line design



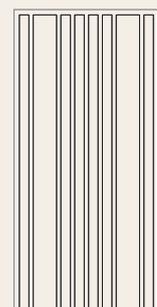
Troldekt line
design 11



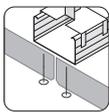
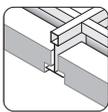
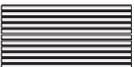
Troldekt line
design 11
4/6



Troldekt line
design 11
7/10



Troldekt line
design 11
3/9

EDGE	SUSPENSION					MODULE DIMENSIONS					THICKNESS RANGE					VENTILATION	NOTE			
											25 mm	35 mm	PLUS 25 mm	PLUS 35 mm	PLUS 25+20 mm			PLUS 35+20 mm	PLUS 25+40 mm	PLUS 35+40 mm
 Troldekt® line	●	●	●	●						●	●	●	●	●	●	●	●	●	●	
 Troldekt® line design	●	●	●	●					●		●	●	●	●	●	●	●	●	●	1)
 Troldekt® v-line	●	●	●	●		●				●	●	●	●	●	●	●	●	●	●	2)
 Troldekt® tilt line	●	●	●	●						●	●	●	●	●	●	●	●	●	●	
 Troldekt® dots	●	●	●	●						●	●	●	●	●	●	●	●	●	●	
 Troldekt® curves	●	●	●	●						●	●	●	●	●	●	●	●	●	●	
 Troldekt® tiles	●	●	●	●		●					●	●	●	●	●	●	●	●	●	3)
 Troldekt® puzzle	●	●	●	●		●					●	●	●	●	●	●	●	●	●	
 Troldekt® rhombe mini	●	●	●	●			●				●	●	●	●	●	●	●	●	●	4)
 Troldekt® rhombe	●	●	●	●			●				●	●	●	●	●	●	●	●	●	5)
 Troldekt® tiles T24					●	●				●	●	●	●	●	●	●	●	●	●	

1. Troldekt® line design is available in the variants 11, 11 3/9 (without grooves 3 and 9), 11 4/6 (without grooves 4 and 6) and 11 7/10 (without grooves 7 and 10).
2. Troldekt® v-line is available in the variants 2way (with 8 mm bevel on short sides) and 1way (without bevel on short sides). Both variants are available with 6 or 10 grooves. A third variant is v-line blank without any grooves on the surface of the panel.
3. Troldekt® tiles are available in the variants 1+1, 1+2, 2+2, 2+4 and 4+4, with varying distances between the grooves.
4. Troldekt® rhombe mini is also available as Troldekt® rhombe hatch mini – with extra grooves in the surface of the panel.
5. Troldekt® rhombe is available with and without patterns on the panel surface. The patterned rhombe hatch design is available in both left and right-facing variants (rhombe hatch left and rhombe hatch right).

Please note that the above overview is indicative, and that certain combinations of structures, colours etc. are not available for all products



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Before and after Installing Troldekt® products

30	Introduction to installing Troldekt
31	Storage
32–33	Machining
34–35	Use & Maintenance



Troldekt®
Acoustic Solutions
since 1935

Introduction to installing Troldekt®

There are a number of methods for the installation of Troldekt acoustic panels on wooden battens or in profile systems. Here is an overview.

Troldekt acoustic panels can be mounted with visible screws or concealed KN brackets directly on wooden battens or on a suspended C60 profile system. You can also mount Troldekt on an exposed or concealed T profile system – without the need for tools.

Installation with screws

Troldekt screws have been specially developed for installing Troldekt acoustic panels. The cross-head Phillips (PH2) screws are electroplated and colour-matched to complement the panels. The heads of the Troldekt cross-head screws have the same structure as the Troldekt acoustic panels, which makes them less conspicuous after installation.

Structure screws are available for installation on either wood or steel. We supply coloured screws for the complete range of Troldekt acoustic panels, from natural wood and natural grey (FUTURECEM™) as well as panels finished in both standard and custom colours.

Installation with KN brackets

Troldekt KN brackets have also been specially developed for installation Troldekt acoustic panels. The KN brackets allow for concealed installation, resulting in a streamlined ceiling surface without visible screws. Visible screws are only used to fix the acoustic panels along walls.



Storage before installation of Troldekt®

These instructions describes how to store your Troldekt® acoustic panels before installation.

For further information, please see www.troldekt.com.

Check panels on receipt

on receipt, check that the number of panels is correct and that the panels do not have visible defects or non-conformities. If the panels are defective, you must submit your claim immediately.

Troldekt does not accept claims for visible defects and deficiencies after the panels have been installed.

Important information about cement-bonded wood wool

Troldekt cement-bonded wood wool consists of cement and wood, which is a natural material. Therefore, the panels will 'work' to achieve the same temperature and humidity as their surroundings – as, for example, do wooden floors.

If you install damp Troldekt panels, the panels may shrink when they dry, resulting in small shrinkage cracks. It is therefore important to follow the storage instructions carefully.

If the panels absorb moisture after installation, they will simply butt up against each other. There is consequently no risk of the panels expanding so much so that they push against other parts of the building.

Panel dimensions and weight remain within the stated tolerances at $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and $50\% \pm 5\%$ relative humidity.

Therefore, you should not start installing Troldekt until the building is completely sealed and the heating is turned on.

Ensure proper storage

We recommend that you store Troldekt acoustic panels indoors. It is important that you remove any packaging, otherwise condensation can form under the packaging – causing the panels to become damp.

Care should be taken to protect Troldekt panels from direct sunlight through windows and avoid drying them asymmetrically, e.g. with a fan heater.

We do not recommend storing the panels outdoors as weather conditions can affect the panels. If outdoor storage is necessary, you should protect the panels with a tarpaulin or similar so that they are not exposed to rain or other forms of moisture. Ensure that outdoor storage is as brief as possible.



Acclimatise the panels as needed

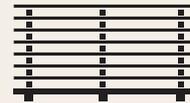
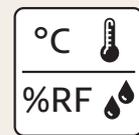
If you store the Troldekt panels in a dry environment after delivery, they can be installed without prior acclimatisation. However, minor shrinkage cracks may occur at the joints.

For the best aesthetic result, we recommend 'battening' the panels – i.e. placing battens between them and allowing them to acclimatise indoors for 7 days before installation.

If the panels are stored without battens between them, the acclimatisation period should be extended to 14 days.

During acclimatisation, the panels adapt to the temperature and humidity of the room. Ensure that the space is well ventilated.

Troldekt panels should also be acclimatised when installed in humid rooms or outdoors.



Support panels before installation

Before installation, store your Troldekt panels in a horizontal position with good support, for example on pallets or battens.



Machining Troldekt® acoustic panels

Troldekt cement-bonded wood wool panels are suitable for screw-fastened installation that is also easy to work with and saw. This ensures simple workflows and considerable flexibility for installation.

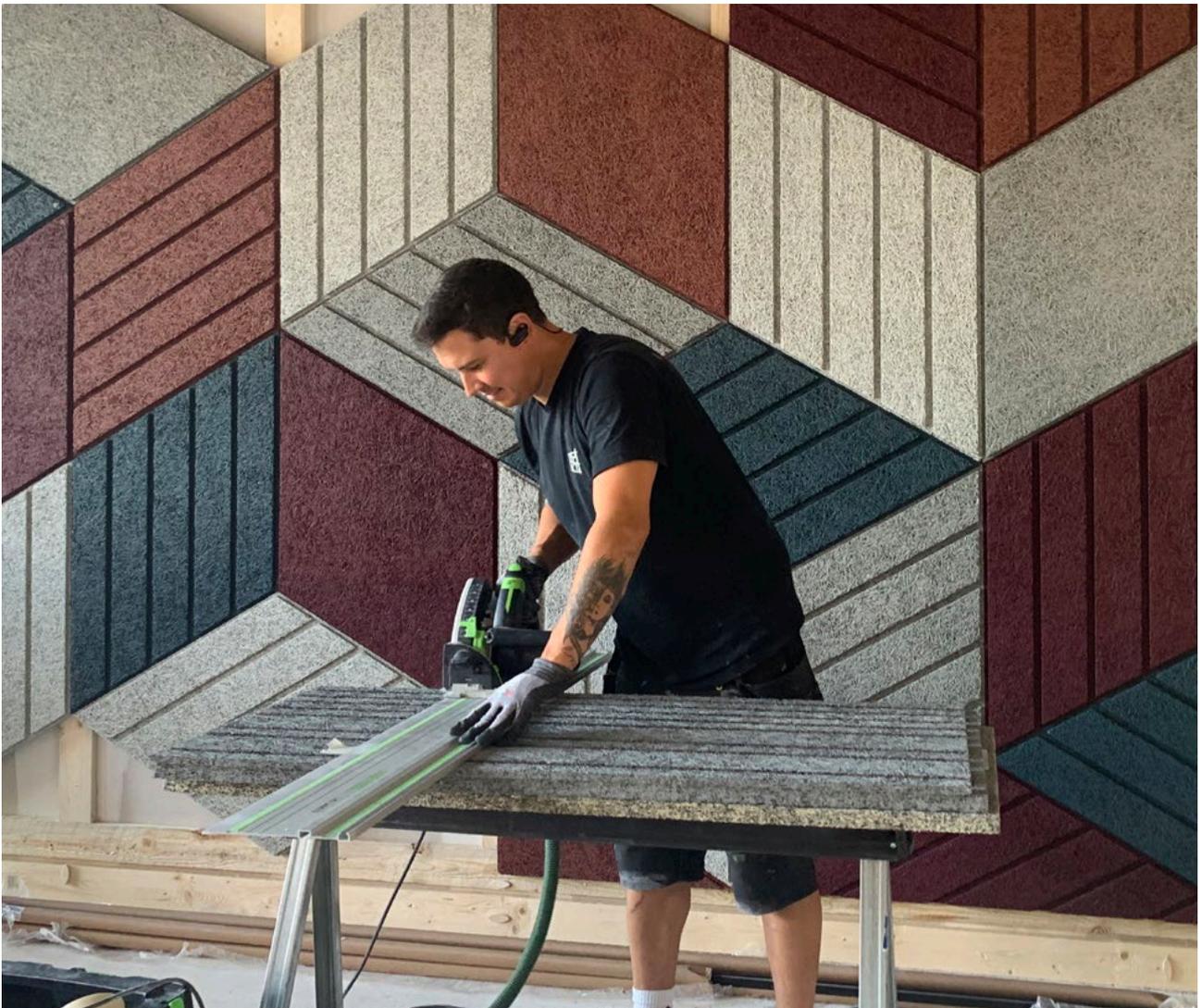
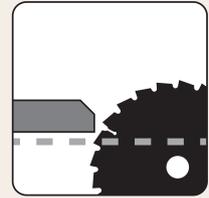
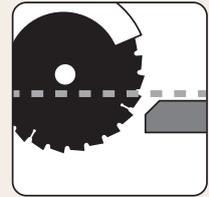


TABLE SAW

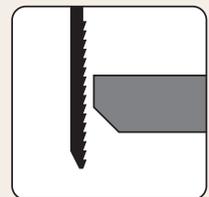
Place the acoustic panel rear side down. Remember safety shielding and a sawdust extraction system.

**TABLE SAW/CIRCULAR SAW WITH PARALLEL GUIDE**

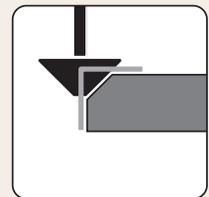
Place the acoustic panel with the rear side facing down, and make sure to support the free end of the panel. Use a parallel guide to achieve a straight edge and protect the surface from scratches and use a fine-toothed blade for sawing. Remember safety shielding and a sawdust extraction system.

**JIGSAW**

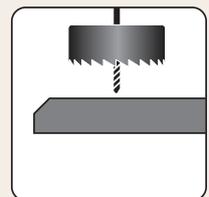
Saw the acoustic panel from the rear side and ensure that it is supported by a firm and clean surface.

**ROUTER**

Place the acoustic panel rear side down. Use a parallel guide to bevel the panel edges.

**HOLE SAW**

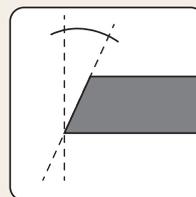
Place the acoustic panel rear side down. Drill a pilot hole, ensuring that the hole saw is in even contact with the panel. Do not press too hard while drilling, and stop drilling every so often.

**HANDSAW**

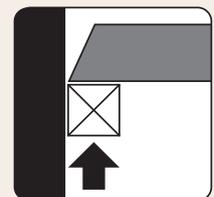
Place the acoustic panel rear side down and ensure that it is supported by a firm surface.

**FINISHING AGAINST WALL**

If necessary, cut the acoustic panels to produce a slight bevelled edge (1) to better accommodate any irregularities or crookedness in the wall. Use a board for example to press the acoustic panel into place against the wall (2).



1.



2.

Use and maintenance

Troldekt® panels

Troldekt acoustic panels have a minimum service life of 50 years. During the operating phase, the panels are easy to maintain and with painting and simple repairs, you can extend their service life even further.

These instructions apply to use and maintenance after installation of Troldekt® panels. You can find additional information at www.troldekt.com. Contact our technical department for further instructions.

CLEANING

After installation

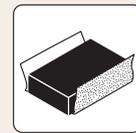
It is always a good idea to remove any dust from the installation work from the surface of the acoustic panels with a vacuum cleaner. The easiest and gentlest way to do this is with an ordinary brush nozzle.

If the installation process has left lines or other dirt on natural wood panels, you can remove the marks/dirt using a slightly damp cloth or by sanding with fine-grained sandpaper.

For painted panels, use Troldekt touch-up paint. Please note that any touch-up paint in custom colours must be ordered together with the acoustic panels to ensure a perfect colour match.

Regular cleaning

Troldekt acoustic panels usually do not need special care. However, we recommend regular cleaning at the same time as other surfaces. Use a vacuum cleaner with a brush nozzle or a slightly damp cloth.



PAINTING

Choice of paint

When painting Troldekt acoustic panels, the process depends on whether you are painting untreated natural wood panels or factory pre-painted Troldekt panels. Even more important is your choice of paint type and colour.

For factory pre-painted Troldekt panels, use a water-based acrylic paint. The composition of the new paint must be compatible with the existing paint; in other words, it must be of the same quality and type.

The amount of paint to apply depends on the type of paint, its viscosity, coverage, the application method and the nature of the substrate. Only use paint types that are certified as being free of hazardous substances.

Equipment and paint application

Apply the paint using a paint sprayer (an airless sprayer, for example). To ensure adequate paint coverage, apply each coat from different directions/angles. Apply the paint using gentle movements while making sure not to close the fibre structure completely with excessive paint. When applying two coats of paint, ensure that the first coat is completely dry before applying the second coat.

When painting Troldekt panels that have already been installed, continually check the painting process to ensure a uniform result. Carefully follow the manufacturer's instructions for equipment use.

For smaller surfaces or when freshening up paint of the same colour, apply the paint thinly using a suitable paint roller.

Always make sure that the panel structure does not become completely sealed with paint. Paint the edges in the same colour as the surface of the acoustic panel.

How to protect adjacent surfaces

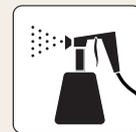
Adjacent surfaces, windows and floors should be properly covered. Use water to remove any spilled paint while it is still wet. Dried paint must be removed with paint remover, which may damage the surface.

Safety information

Always carefully read information regarding protective measures described in the paint manufacturer's product safety data sheets. so you protect your head, eyes, lungs and skin by wearing a mask, safety glasses, gloves and appropriate workwear.

Touch-up paint

To cover scratches resulting from installation etc., we recommend Troldekt touch-up paint, which is available separately in the standard Troldekt colours white 101, grey 202, grey 208 and black 207. Please note that any touch-up paint in custom colours must be ordered together with the acoustic panels to ensure a perfect colour match.



REPAIRS

Repairing holes

If holes/cracks appear in the acoustic panels, they can easily be repaired using commonly available materials. In the case of major damage – for example from moisture or soot – we recommend replacing the affected panel.

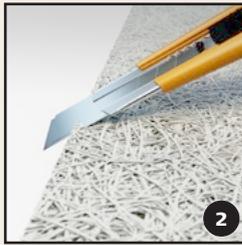
Minor repairs

This method is suitable for the individual repair of small holes. You will need:

- Sealant – e.g. glue or cement*
- An extra Troldekt acoustic panel with the same structure as the damaged one – possibly a product sample
- A utility knife
- Troldekt touch-up paint



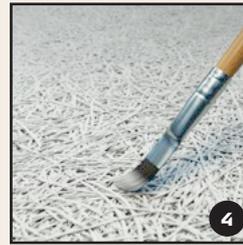
Apply sealant



Using a utility knife, cut a small piece of cement-bonded wood wool out of a surplus panel or a sample panel



Cut the cement-bonded wood wool to size, and use it to fill the hole

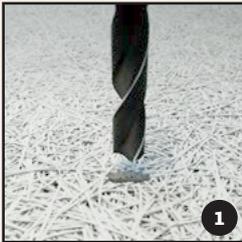


Use touch-up paint with the same colour as the panel

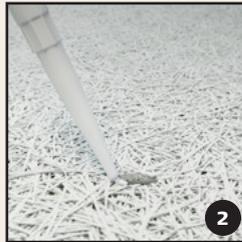
Large repairs

Use the following method for repairing large holes. You will need:

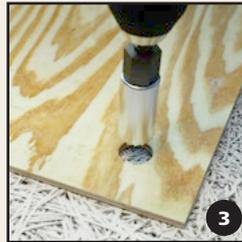
- Sealant – e.g. glue or cement*
- An extra Troldekt acoustic panel with the same structure as the damaged one – possibly a product sample
- Wood drill
- Hole saw set
- Troldekt touch-up paint



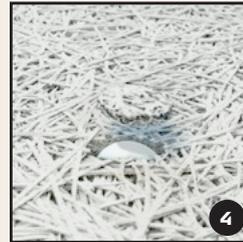
Use the wood drill to make the holes equal in diameter



Apply sealant



Use the cup drill to drill out small pieces of cement-bonded wood wool from a surplus panel or sample. The pieces must be the same diameter as the holes



Place the drilled pieces of cement-bonded wood wool in the holes with sealant



Use touch-up paint with the same colour as the panel

*The panels can be disposed of in the same way as other cement-bonded wood wool waste if you use Portland cement to attach the pieces of cement-bonded wood wool, as the cement is free of harmful substances. If you choose to use glue, we recommend using solvent-free non-toxic glue. Also, do not use silicone-based glue if it is going to be painted.

This information sheet is produced on the basis of the latest knowledge and is only intended as a guide.

Installing Trolldtekt® products

38–39	Installation: Screws on wooden battens, ceiling / wall
40–43	Details: Wooden battens, ceiling / wall
44–47	Installation: Concealed KN-brackets on wooden battens, ceiling / wall
48–49	Details: Concealed KN-brackets on wooden battens, ceiling / wall
50–51	Installation: C60-profile system
52–55	Details: Screws / KN-brackets on C60-profile system
56–61	Installation: Access panels for C60-profile system
62–63	Details: Access panels for C60-profile system
64–65	Installation: C60-profiles, quick-fit suspension brackets
66–67	Installation: C60-profiles, adjustable suspension brackets
68–69	Details: Screws on C60-profiles with quick-fit / adjustable suspension brackets
70–71	Installation: Exposed T24-profiles
72–75	Details: Exposed T24-profiles
76–77	Product specifications: T24 table (distances, loads etc.)
78–79	Installation: Exposed T35-profiles
80–83	Details: Exposed T35-profiles
84–85	Product specifications: T35 table (distances, loads etc.)
86–87	Installation: Concealed T35-profiles
88–89	Installation: Exposed longitudinal T35-profiles
90–91	Details: Concealed / exposed longitudinal T35-profiles
92–93	Installation: Trolldtekt® clouds
94–97	Installation: Trolldtekt® Elements
98–103	Installation: Trolldtekt® baffles



Installation instructions

Wooden battens, ceilings

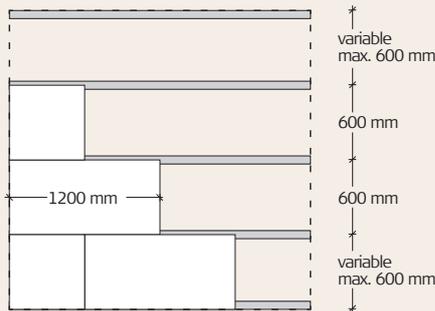
These instructions apply to installation of wooden battens for ceiling cladding.

Download installation instructions for all Troldekt® panel types from www.troldekt.com.

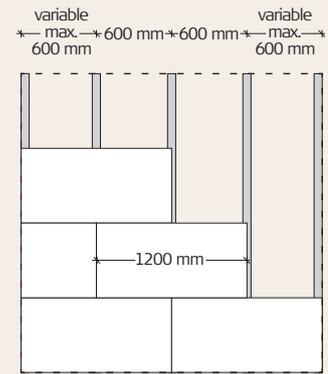
INSTALLATION OF WOODEN BATTENS

Troldekt panels are most often installed on longitudinal wooden battens, but transversal battens are just as applicable (except for Plus panels).

Note, however, the tolerances of the Troldekt panels. If the panels are very dry, they could be undersized, which could cause problems on very large surfaces with transversal wooden battens.



Longitudinal wooden battens



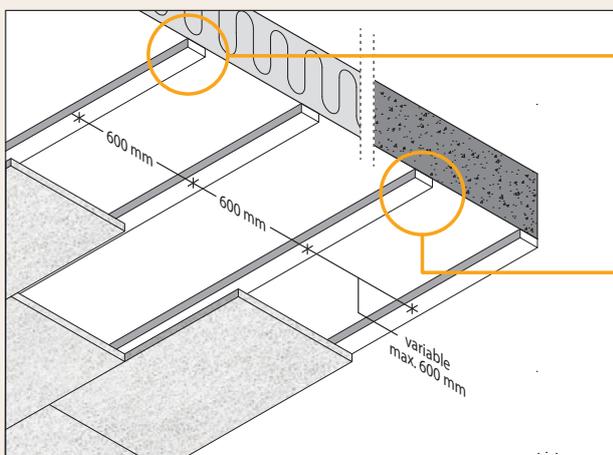
Transverse wooden battens

VAPOUR CHECK

If you need to install a vapour check, we recommend using polyethylene. The vapour check must be placed behind the wooden battens. Install the vapour check tightly against the insulation.

Please refer to the manufacturer's instructions – and for questions regarding building physics, please contact an appropriate specialist.

STRUCTURAL SOFFIT



Insulation

Post/structure

Vapour check

E.g. 22 × 95 mm or
45 × 95 mm wooden battens

Troldekt panels

Concrete

E.g. 22 × 95 mm or
45 × 95 mm wooden battens

Troldekt panels

Installation instructions

Wooden battens, walls

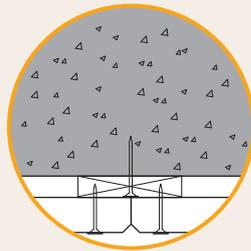
These instructions apply to installation of wooden battens for wall cladding, e.g. 22x95 mm or 45x95 mm. Download installation instructions for all Troldekt® panel types from www.troldekt.com.

STRUCTURAL SOFFIT

Concrete

E.g.: 22 × 95 mm or 45 × 95 mm wooden battens

Troldekt panels



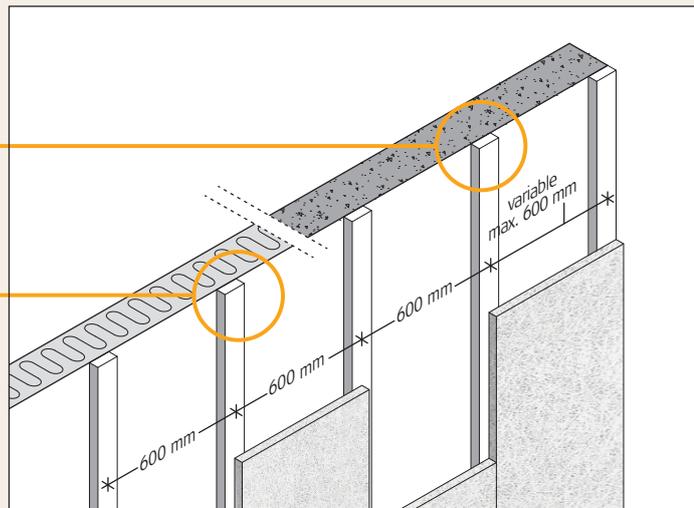
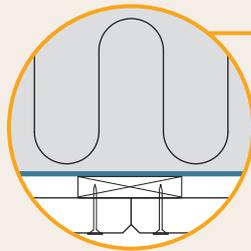
Insulation

Post/structure

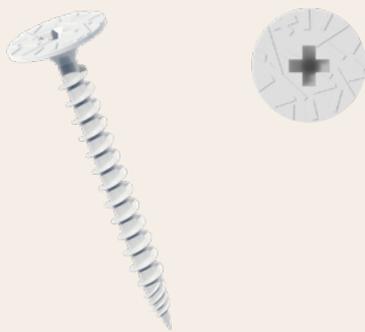
Vapour barrier

E.g.: 22 × 95 mm or 45 × 95 mm wooden battens

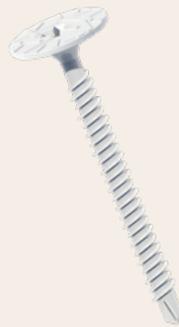
Troldekt panels



ACCESSORIES FOR INSTALLATION ON WOODEN BATTENS



ACCESSORIES FOR INSTALLATION ON STEEL PROFILES



DIMENSION OF WOODEN BATTENS:

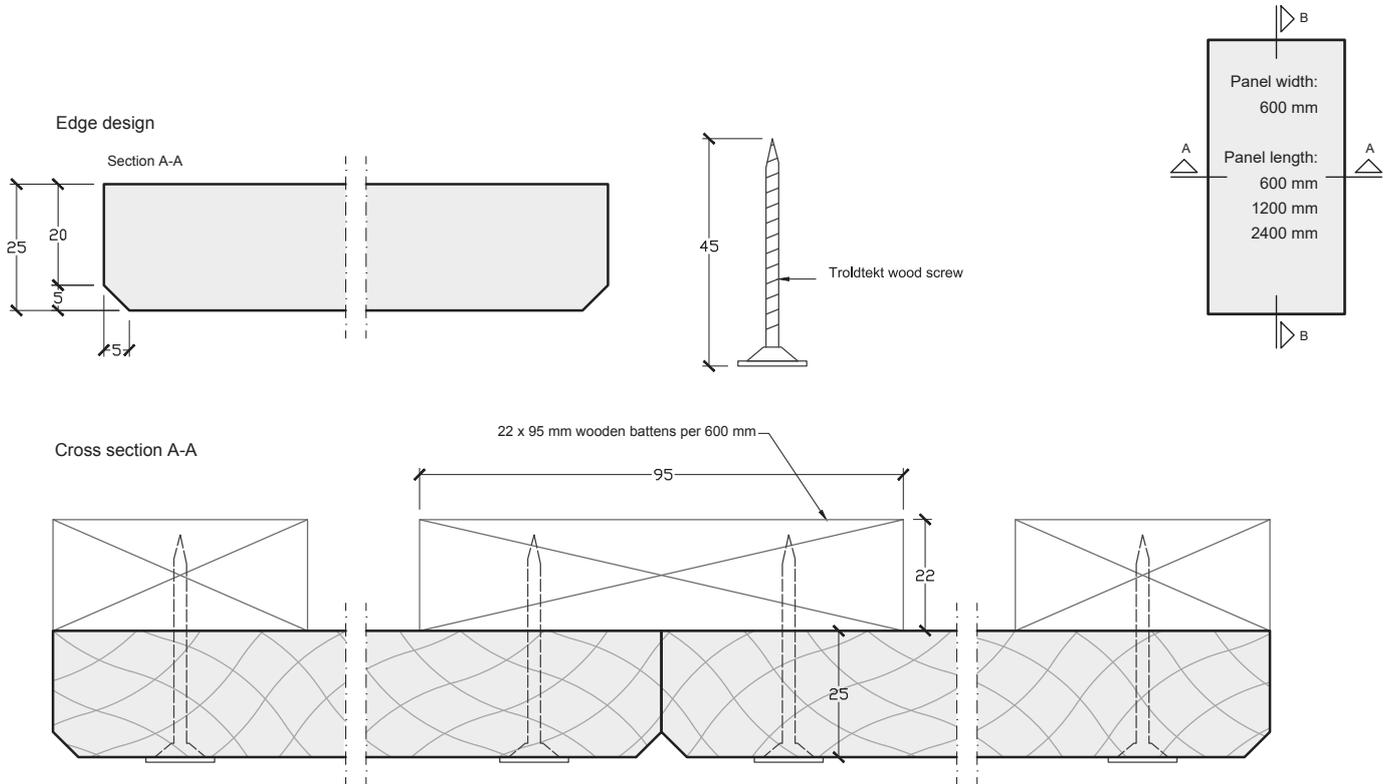
The required minimum width of the wooden battens is 60 mm due to the necessary edge distance of the screws.

The overall dimension/cross-section depends on span width, load, timber quality/class, and possibly national guidelines.

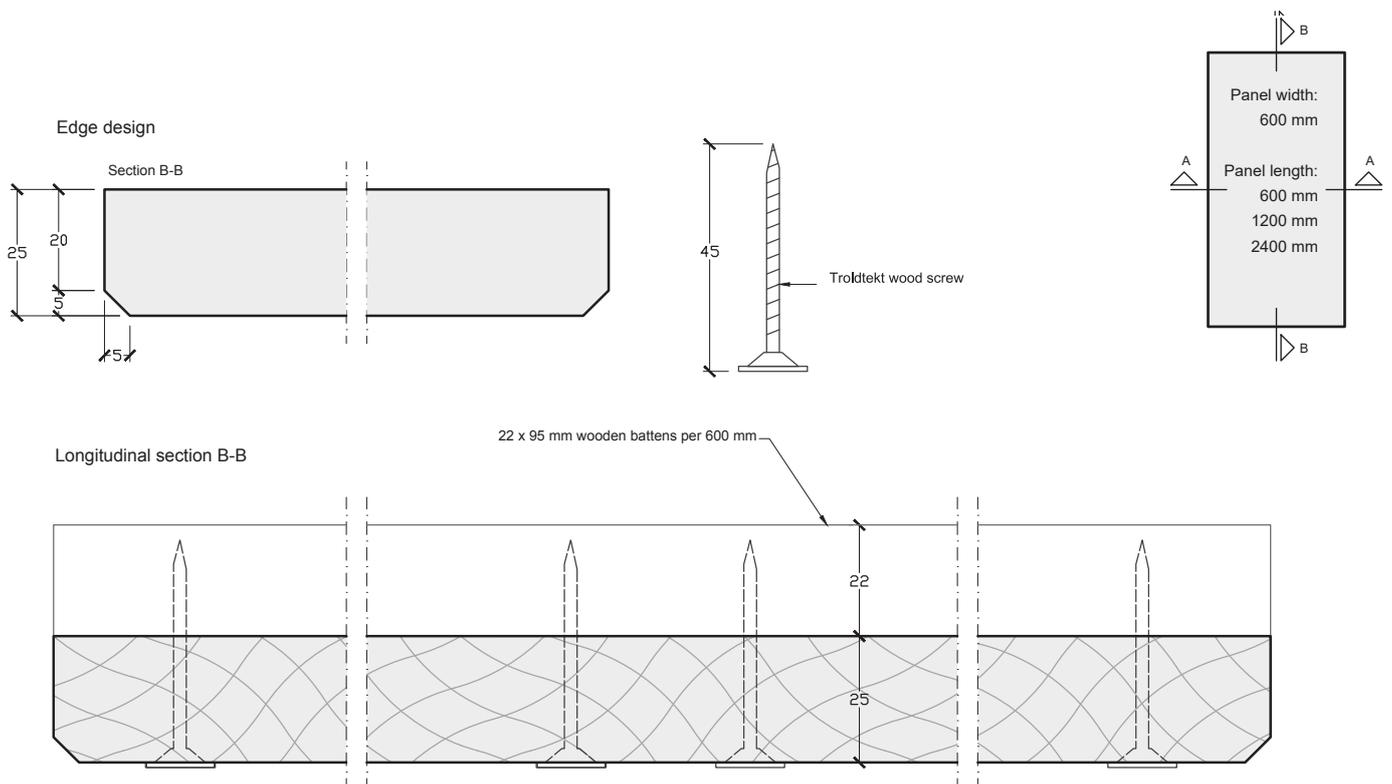
Troldekt solution	Dimension of wooden battens
Troldekt acoustic (25 mm / 35 mm)	22 x 95 mm wooden battens
Troldekt Plus Fleece (25 mm / 35 mm)	22 x 95 mm wooden battens
Troldekt Plus Mineral Wool (25 + 20 mm / 35 + 20 mm)	22 x 95 mm wooden battens
Troldekt Plus Mineral Wool (25 + 40 mm / 35 + 40 mm)	45 x 95 mm or 40 x 60 mm

Installation with screws on wooden battens. K5, 25mm

Modular dimensions (mm): 600 x 600 / 1200 / 2400



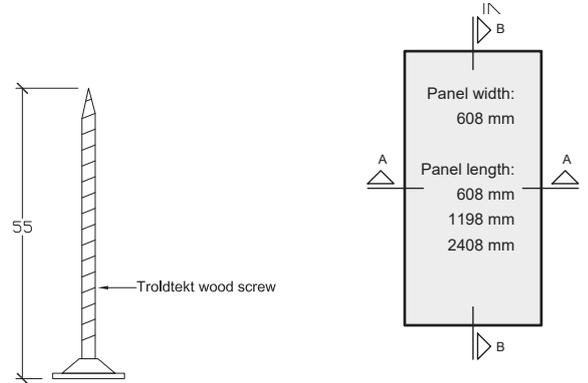
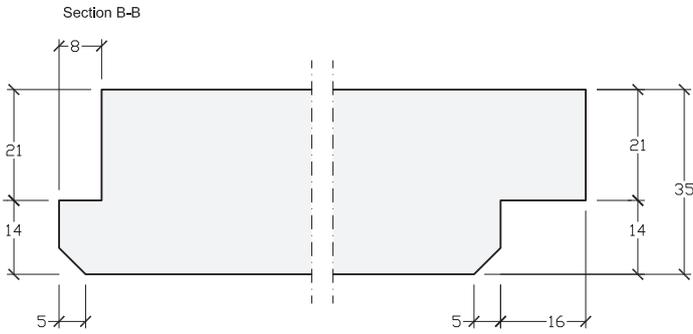
Modular dimensions (mm): 600 x 600 / 1200 / 2400



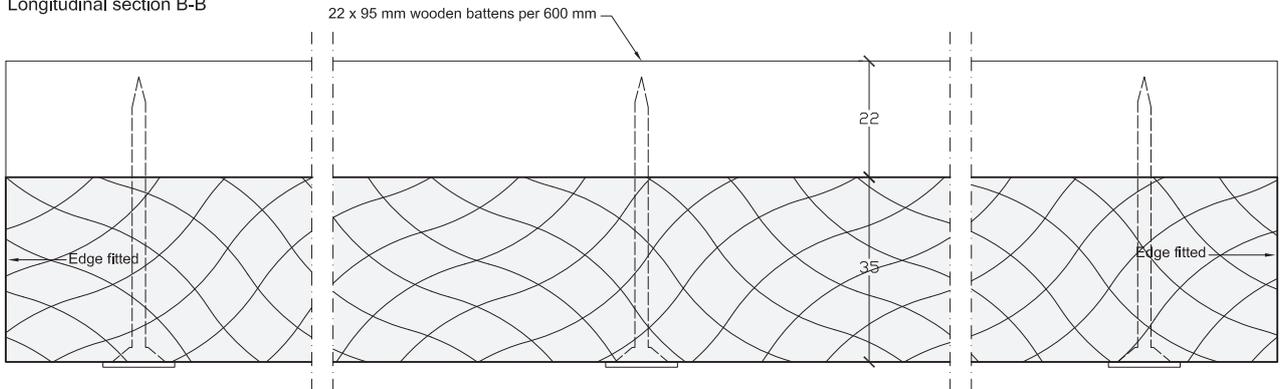
Installation with screws on wooden battens. K5-FU, 35mm

Modular dimensions (mm): 600 x 600 / 1190 / 2400

Edge design

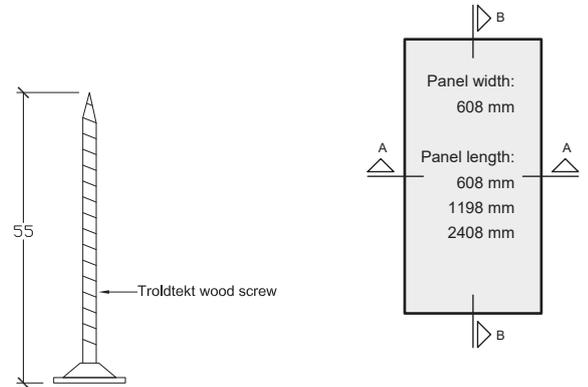
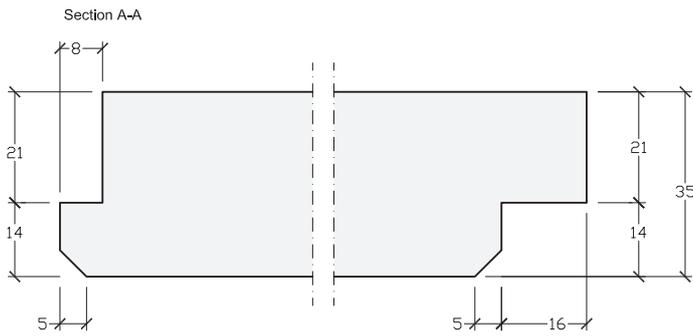


Longitudinal section B-B

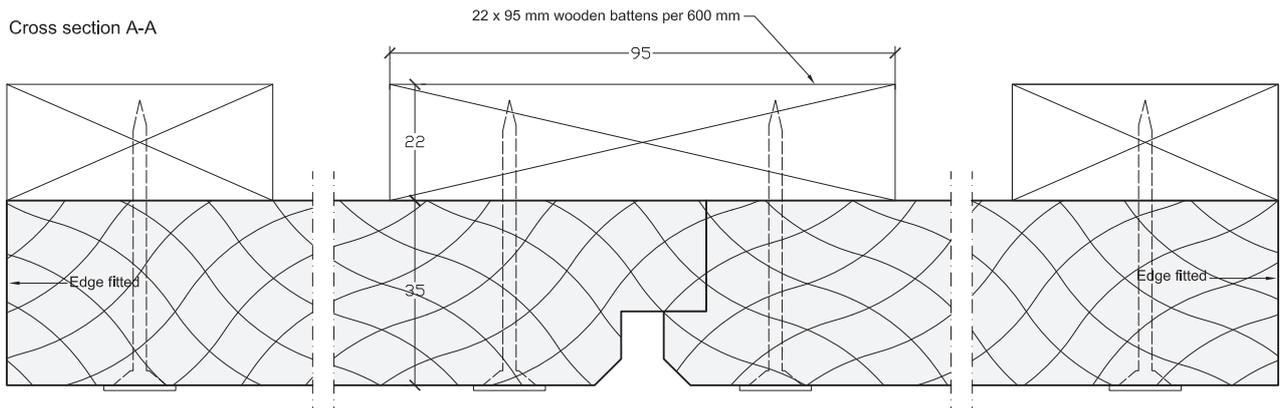


Modular dimensions (mm): 600 x 600 / 1190 / 2400

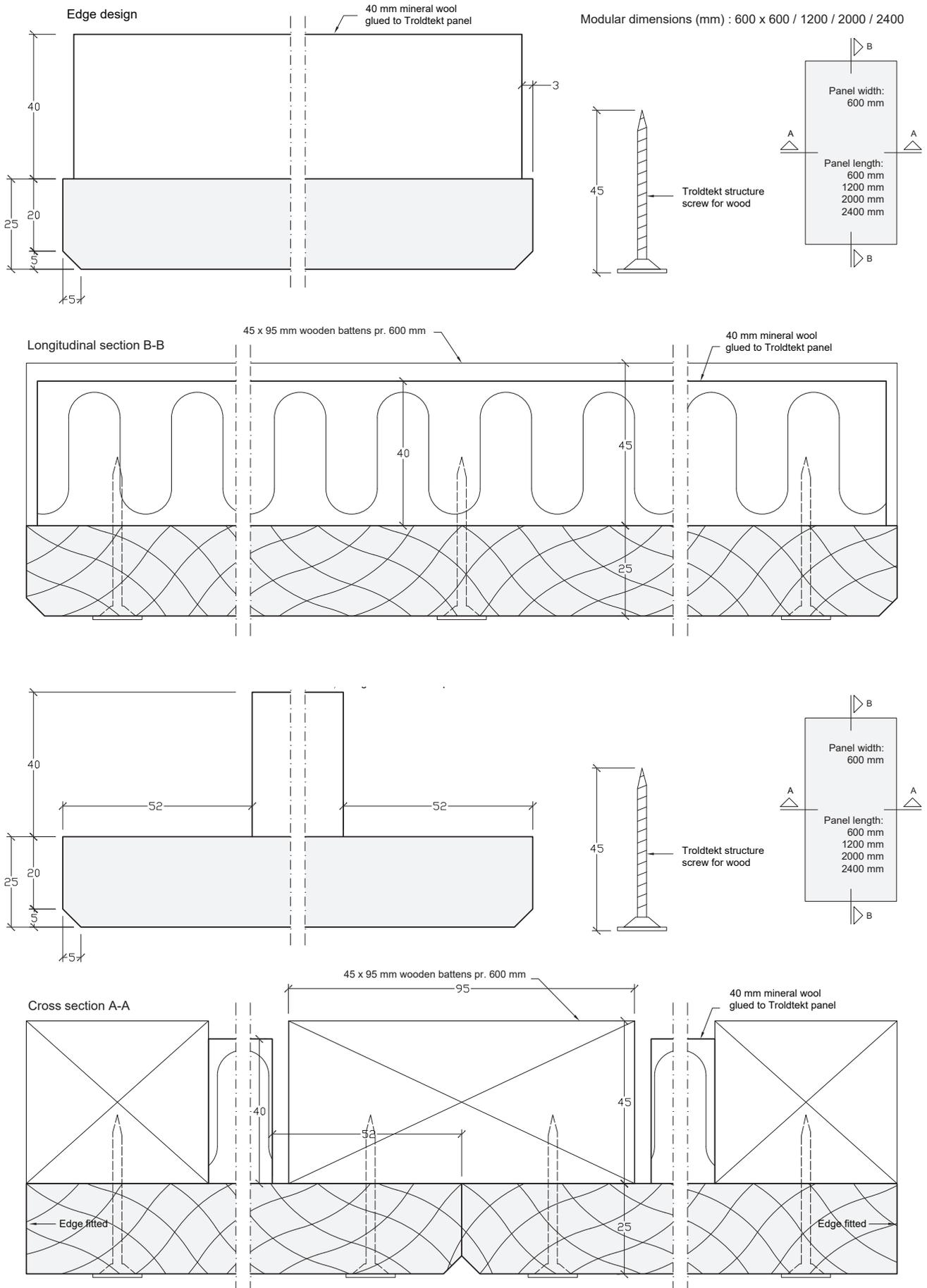
Edge design



Cross section A-A



Installation with screws on wooden battens. Troldekt Plus, 25+40mm



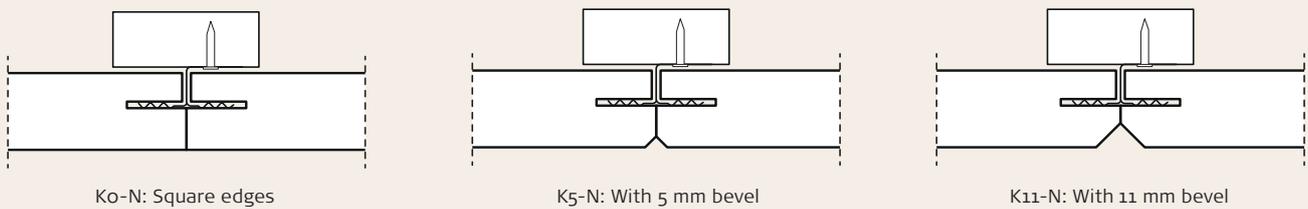


Installation instructions

Concealed KN brackets, ceilings

These instructions apply to installation of Troldekt® acoustic panels with concealed KN brackets on wooden battens or steel profile system. If you install Troldekt® on wooden battens, the battens should be minimum 22 x 95 mm. You can download installation instructions for the Troldekt® C60 profile system from www.troldekt.com.

PROFILE DRAWINGS (INDEPENDENT OF SUSPENSION)



INSTALLATION (PLEASE READ FULL INSTRUCTIONS BEFORE STARTING WORK)

1: Start by installing a complete row of Troldekt panels along the centre line of the room. Then continue on both sides. It is important that the panels are installed closely together, and the optimum aesthetic result is obtained by installing the panels in broken bond. Screw the first line of KN brackets into the wooden battens/C60 profile in the centre line of the room using two screws per bracket.

For wooden battens, use two screws (3.5 x 25 mm) per bracket. For C60 brackets, use two self-tapping screws (4 x 13 mm) per bracket (not included).

2: Install the first bracket against the wall and the next bracket in the panel joint. See the illustration below. Then lead the groove of the panel over the bracket and install the next line of brackets continuously as you install the panels.

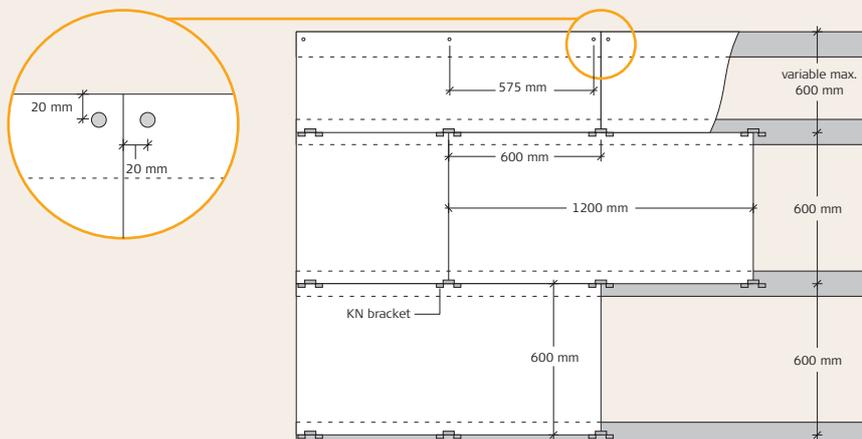
3: Fix the Troldekt panels along the wall, lengthwise, using Troldekt screws (3.9 x 55 mm) spaced 20 mm from the edges. The maximum distance between the screws should be 600 mm. See the illustration below. Be careful not to overdrive the washered screws and so cause an indentation in the panel.

Dimension of wooden battens:

The required minimum width of the wooden battens is 60 mm due to the necessary edge distance of the screws.

The overall dimension/cross-section depends on span width, load, timber quality/class, and possibly national guidelines.

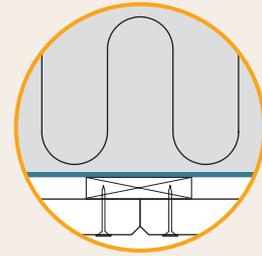
ILLUSTRATION - INSTALLATION



VAPOUR CHECK

If you need to install a vapour check, we recommend using polyethylene. The vapour check must be placed behind the wooden battens. Install the vapour check tightly against the insulation.

Please refer to the manufacturer's instructions – and for questions regarding building physics, please contact an appropriate specialist.



TROLDTEKT® KN BRACKETS AND SCREWS

Panel thickness (mm)	Panel length (mm)	No. of KN brackets per panel	No. of screws along walls
35	600	1*	2
35	1200	2*	3
35	2400	4*	5

* + 1 additional bracket per row



Troldekt KN bracket



Troldekt structure screw for wood and steel, PH2



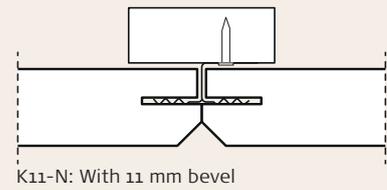
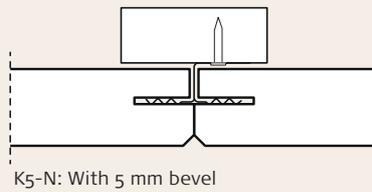
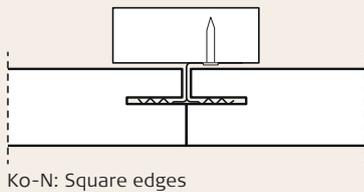
Troldekt structure screw for steel, PH2

Installation instructions

Concealed KN brackets, walls

These instructions apply to the installation of Troldekt® acoustic panels on walls with concealed KN brackets on wooden battens. If you install Troldekt® on wooden battens, the battens should be min. 22 x 95 mm. You can download installation instructions for wood battens from www.troldekt.com.

PROFILE DRAWINGS (INDEPENDENT OF SUSPENSION)



INSTALLATION (PLEASE READ FULL INSTRUCTIONS BEFORE STARTING WORK)

1: Start by installing the bottom row of Troldekt acoustic panels on the wall using KN top/bottom brackets as well as standard KN brackets (see illustration opposite). It is important that the panels are butted tightly up against one another during installation, and the optimum aesthetic result is obtained by installing the panels in broken bond. Screw the first line of KN brackets into the wood battens/C60 profile in the centre line of the room using two screws per bracket. For wood battens, use two screws (3.5 x 25 mm) per bracket. For C60 profiles, use two self-tapping screws (4 x 13 mm) per bracket (not included).

2: Then install the remaining rows of panels, working upwards. Position the first bracket at the end of the wall and the next bracket in the panel joint. See the figure below. Then lead the groove of the panel over the brackets, and install the next line of brackets continuously as you install the panels. Continue up to and including the last but one row of acoustic panels.

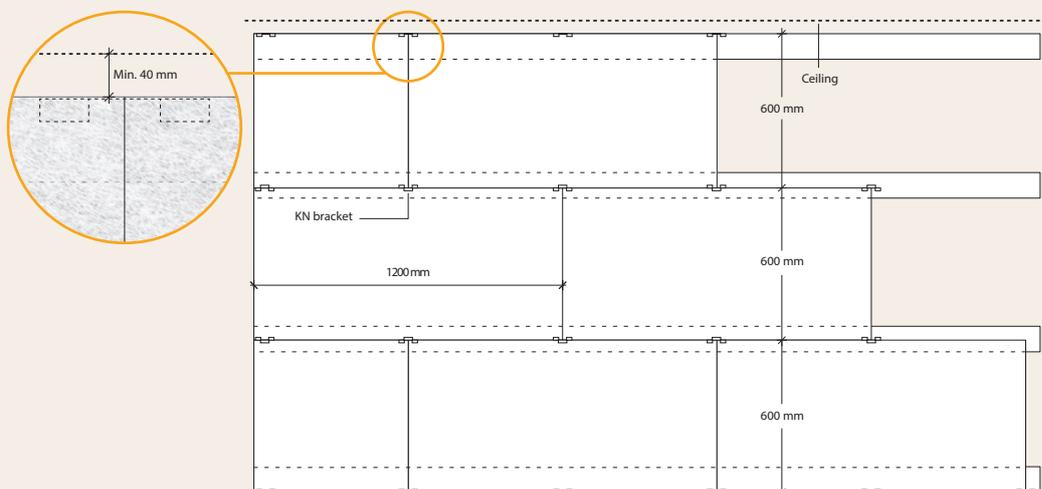
3: Then install the top row of panels using the KN bracket holders as well as the KN top/bottom brackets as shown in the illustration opposite.

Dimension of wooden battens:

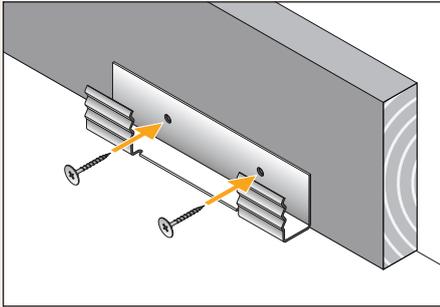
The required minimum width of the wooden battens is 60 mm due to the necessary edge distance of the screws.

The overall dimension/cross-section depends on span width, load, timber quality/class, and possibly national guidelines.

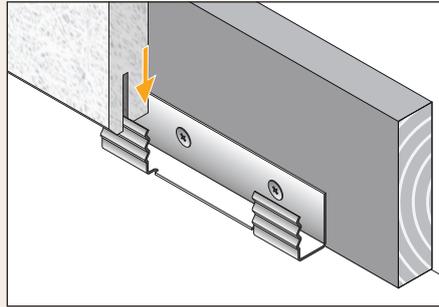
ILLUSTRATION – INSTALLATION



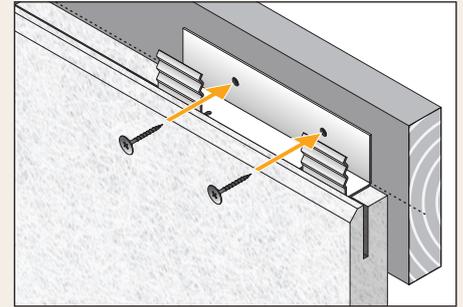
INSTALLATION USING KN BRACKETS



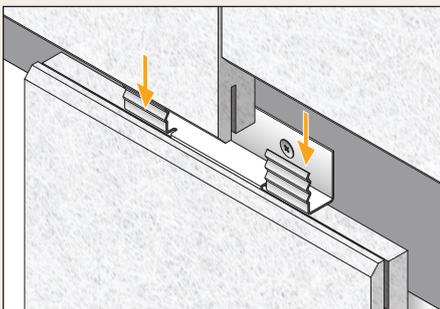
1: Install KN top/bottom brackets at the bottom, with the flanges facing upwards.



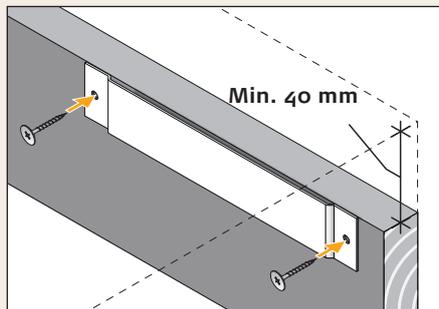
2: Slide the panels onto the brackets at the bottom of the wall.



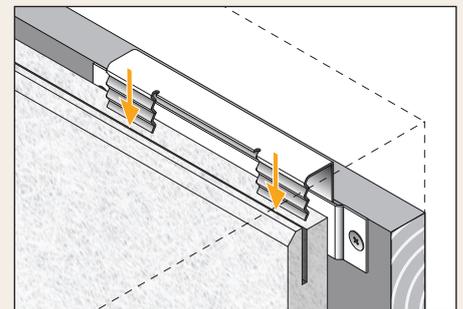
3: Insert the standard KN bracket in the groove at the top of the panel. Then screw the bracket into place.



4: Install the next row of panels on the bracket. Position one KN bracket at every panel joint.



5: At the top of the wall, position the KN bracket holders where the KN brackets are to be installed subsequently. Allow at least 40 mm between the top edge of the KN bracket holder and the ceiling.

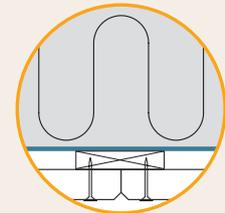


6: Slide the KN top/bottom brackets into place in the panel groove/KN bracket holder, and the panel is now secure.

VAPOUR CHECK

If you need to install a vapour check, we recommend using polyethylene. The vapour check must be placed behind the wooden battens. Install the vapour check tightly against the insulation.

Please refer to the manufacturer's instructions – and for questions regarding building physics, please contact an appropriate specialist.



TROLDTEKT® KN BRACKETS

Panel thickness (mm)	Panel length (mm)	No. of standard KN brackets per panel	No. of KN top/bottom brackets along floor and ceiling per panel	No. of KN bracket holders per panel along ceiling
35	600	1*	1*	1*
35	1200	2*	2*	2*
35	2400	4*	4*	4*
		*+ 1 additional bracket per row	*+ 1 additional bracket per row	*+ 1 additional bracket holder per row



KN bracket, standard

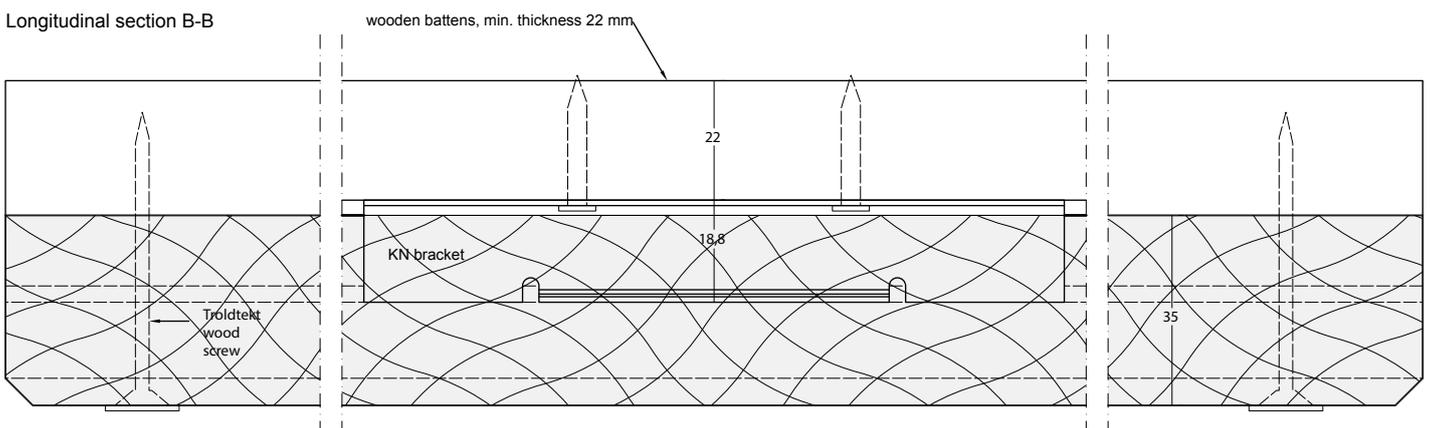
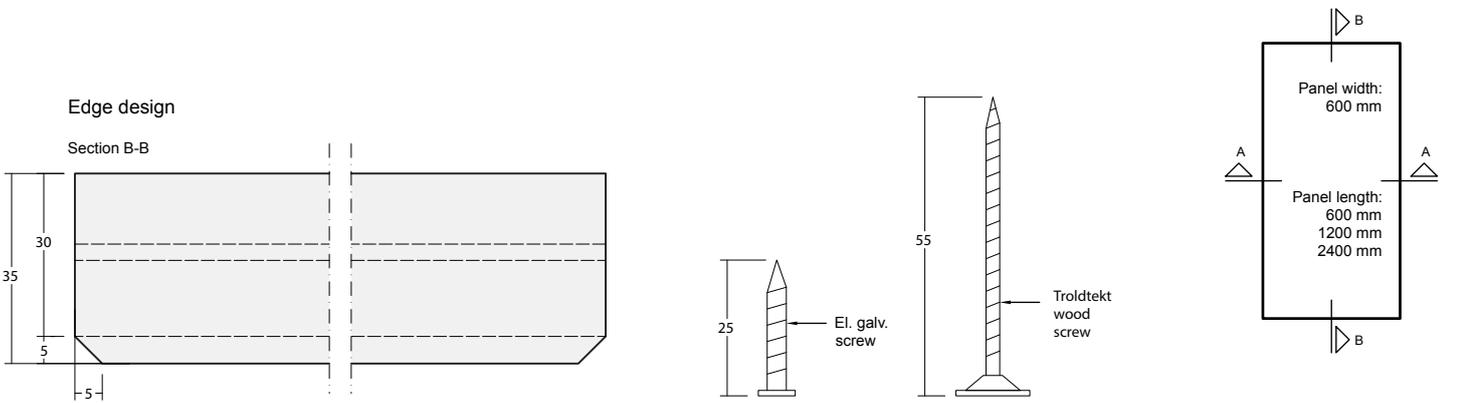
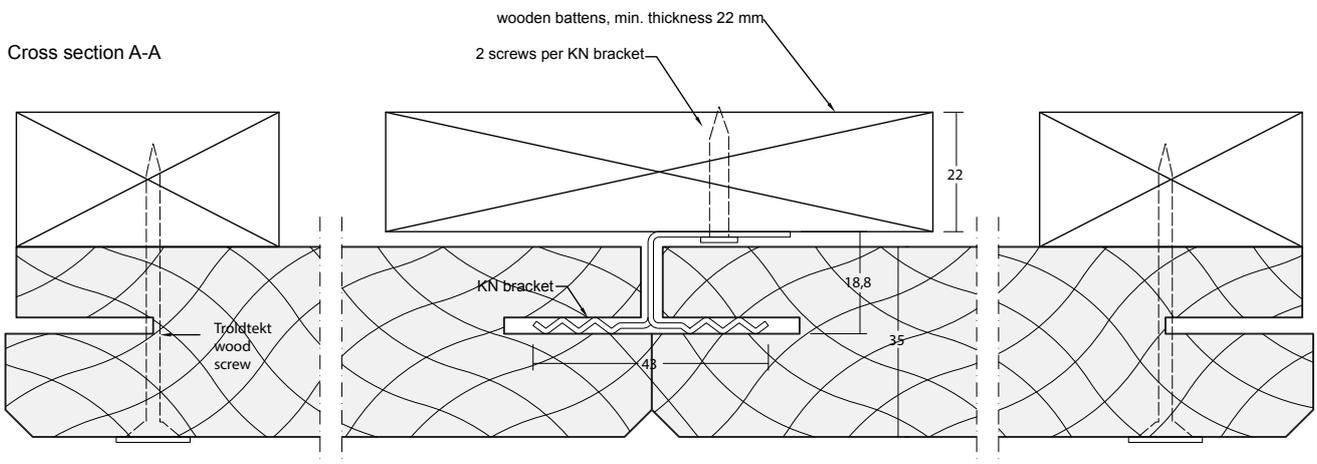
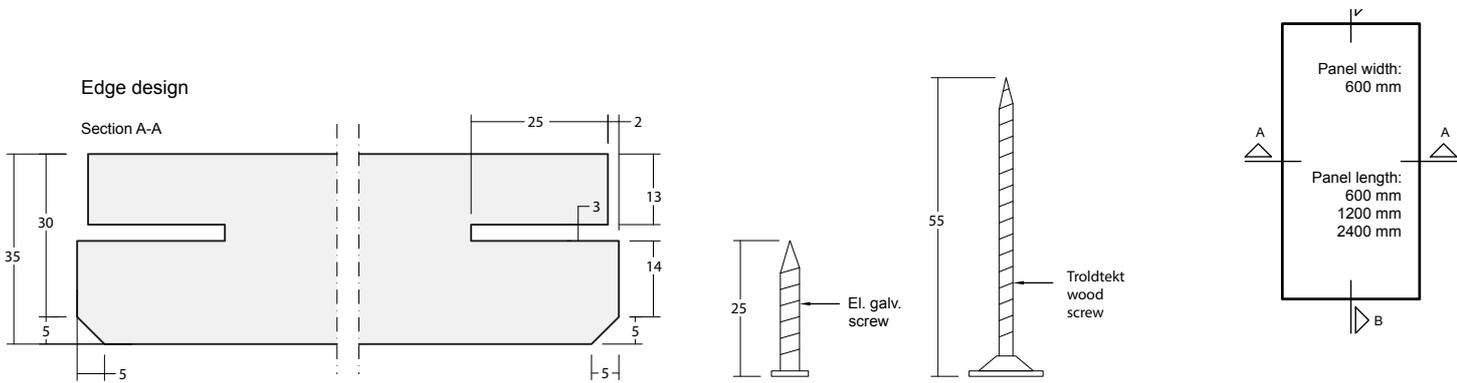


KN top/bottom bracket

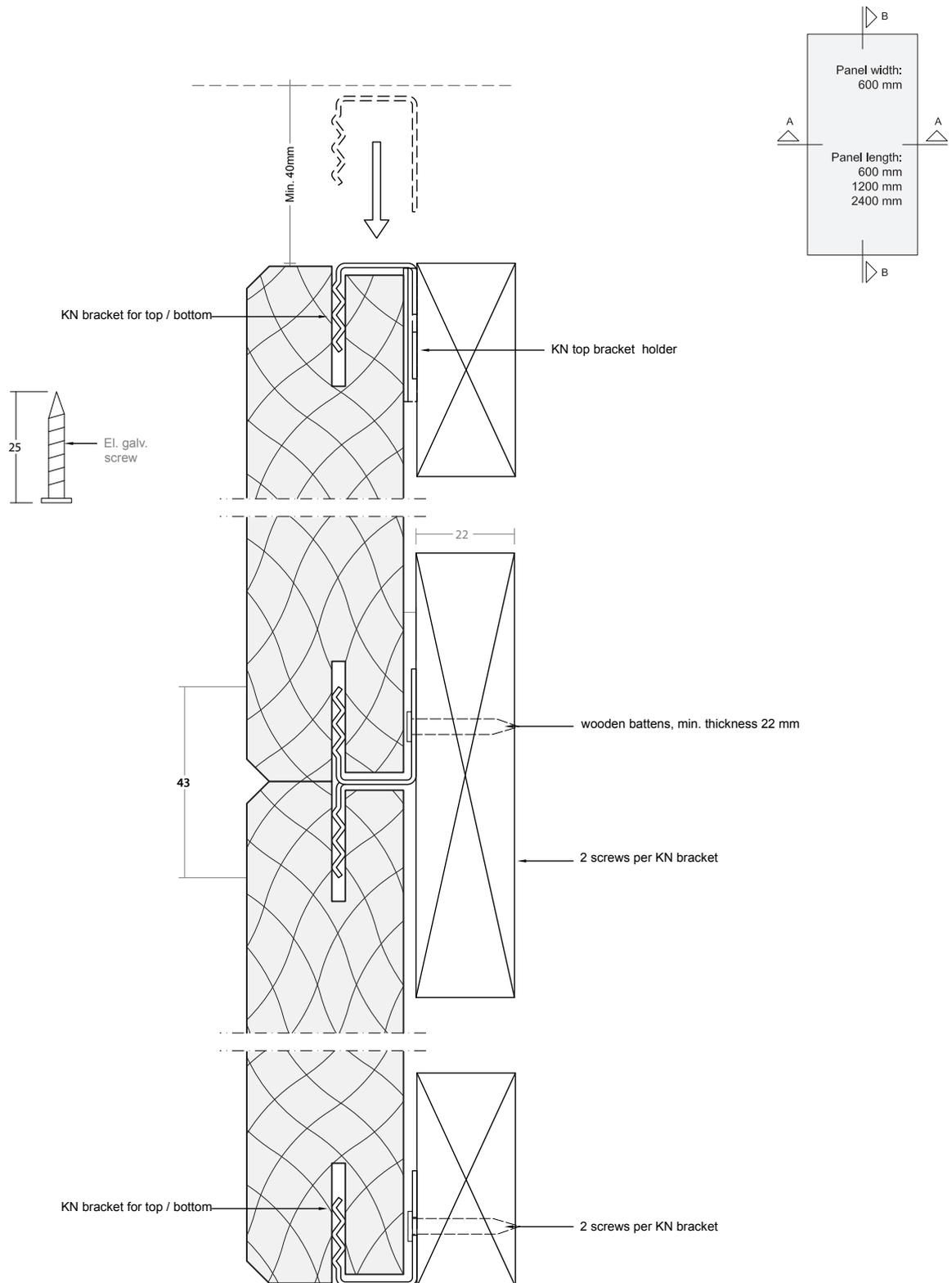


KN top bracket holder

Installation on walls with concealed KN brackets



Installation on walls with concealed KN brackets



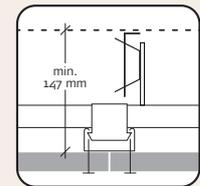
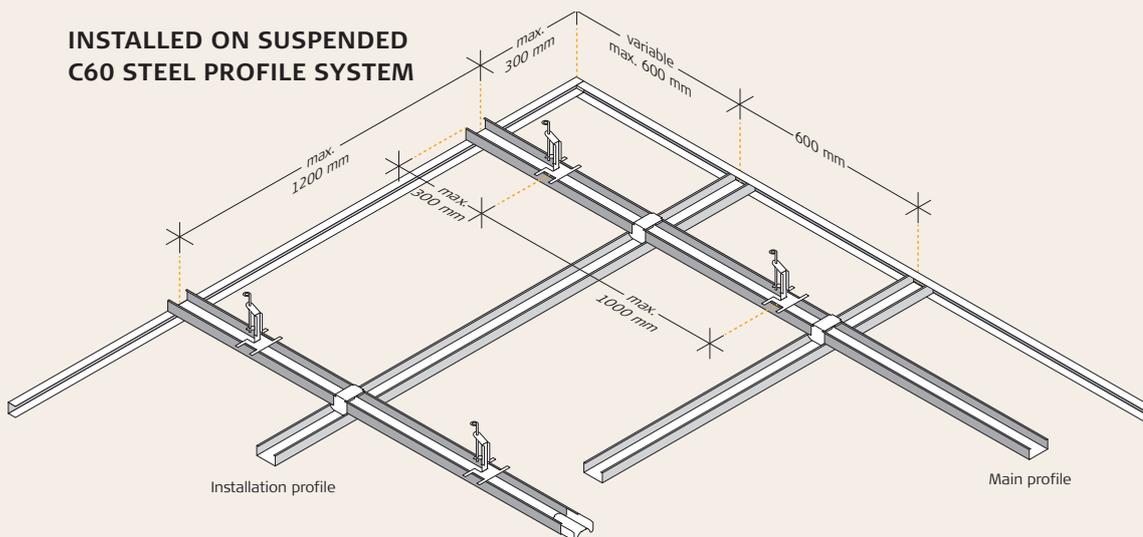
Installation instructions

C60 steel profile system

These instructions apply to installation of C60 steel profile system.

Download installation instructions for all Troldekt® panel types from www.troldekt.com.

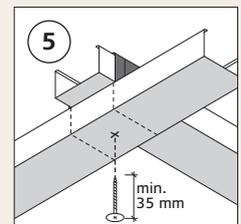
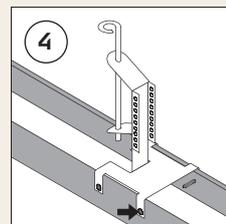
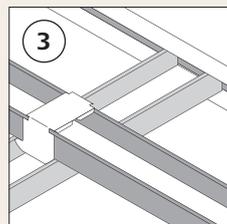
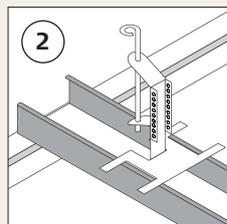
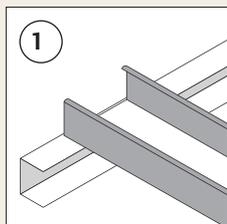
INSTALLED ON SUSPENDED C60 STEEL PROFILE SYSTEM



Installation height

Depending on the chosen hanger type, installations with a minimum installation height of 60 mm can be achieved. Please note the specific minimum height required for each hanger – for example, quick-fit hangers, require at least 147 mm.

STRUCTURAL SOFFIT - EXAMPLE



- 1:** Mark the horizontal ceiling at the required height on all adjoining walls. Mark the lower side of the U-profile and fix it to the wall using 6-mm dowels in predrilled holes. Determine and mark the anchor points for the main profiles. Always install the first quick-hanger between the wall and the first cross connector, max. 300 mm from the wall. Distribute the remaining quick-hangers with a max. spacing of 1000 mm. Assemble ring hook and quick-fit suspension bracket to the desired length and fasten securely to the construction above before further installation. Then bend the ring hook into vertical position.
- 2:** Hold a main profile (C60 profile) with the opening facing upwards and click the profile over the quick-fit suspension bracket at every hanger point. Assemble the C60 profiles longitudinally using

C-connectors. The main profile (C60 profile) must 'land' on the upper side of the U-profile. If possible, divide the ceiling space to allow for adjustments of min. 300 mm on both sides.

- 3:** Then click the installation profiles (C60 profiles) on the main profiles using the cross connectors. Terminate the profiles in the U-profiles.

Note: If the lateral position of the profiles is not entirely precise, you can easily push the profile in the cross connector.

- 4:** The quick-fit suspension bracket may be fixed to the main profile using screws, e.g. when installing the profile system on angled ceilings or in case of increased loads.

- 5:** If the profile system is to be used for installation of panels with concealed KN brackets, installation and main profiles should be fixed using min. 35 mm screws under each cross connector.

General note

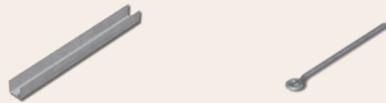
Profile and hanger distances depend on the panel thickness and weight, possible additional loads (installation, fitting, backing and wind) and the maximum permissible load-bearing capacity of the hangers. The design should take into account a maximum deflection of $L/500$ (deflection class 1).

In the case of system tests, the specifications of the corresponding test report are relevant.

COMPONENTS



Product name	C60 profile 60×27 mm	C-connector	C-quick-fit suspension bracket	C-cross connector
Length (mm)	4000	80	100	
Quantity per pack	12 pcs.	100 pcs.	50 pcs.	100 pcs.
Approx. qty. per m ²	2.5 linear m	0.6 pcs.	1.1 pcs.	1.4 pcs.



Product name	U-profile 28×27 mm	Ring hook
Length (mm)	3000	120, 250, 375, 500, 750, 1000
Quantity per pack	16 pcs.	100 pcs.
Approx. qty. per m ²	According to measurement	1.1 pcs.

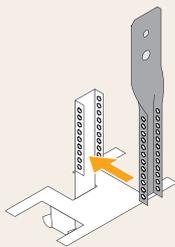
NONIUS

For higher load capacity, install the Troldekt C60 profile system using fixed quick-hangers – nonius quick-hangers – instead of ring hooks.

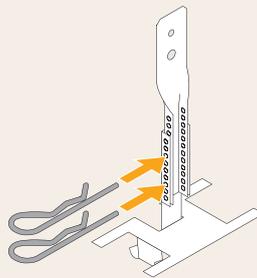


Product name	Nonius quick-fit suspension bracket	Nonius quick-hanger	Nonius split-pin
Length (mm)	100	Variable	-
Quantity per pack	50 pcs.	100 pcs.	100 pcs.
Approx. qty. per m ²	1.1 pcs.	1.1 pcs.	2.2 pcs.

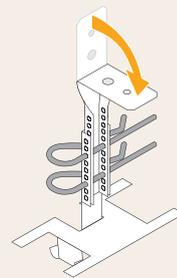
NONIUS, INSTALLATION INSTRUCTIONS



1: Place the nonius quick-hanger in the quick-fit suspension bracket



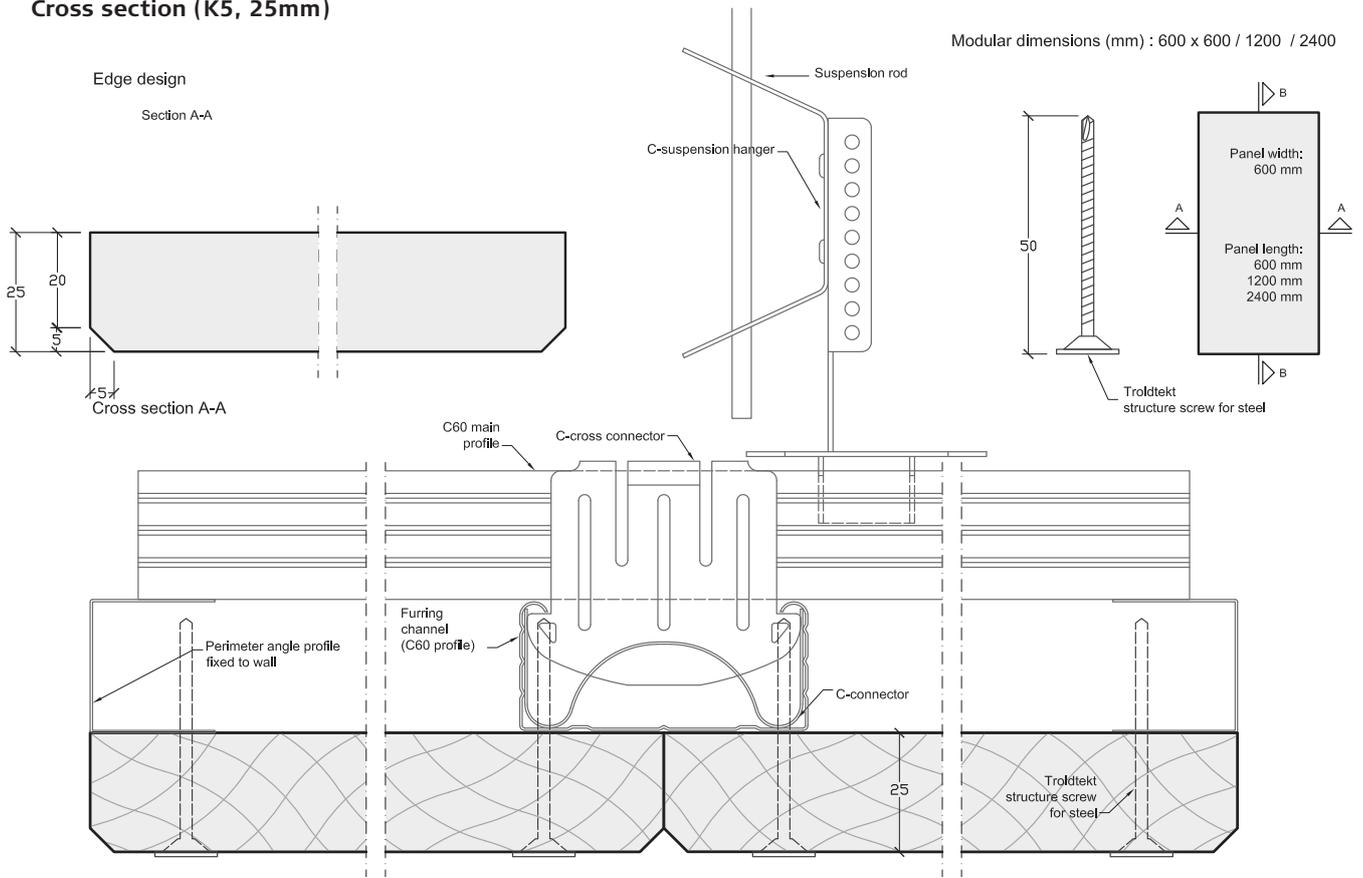
2: Secure the quick-hanger with nonius split-pins



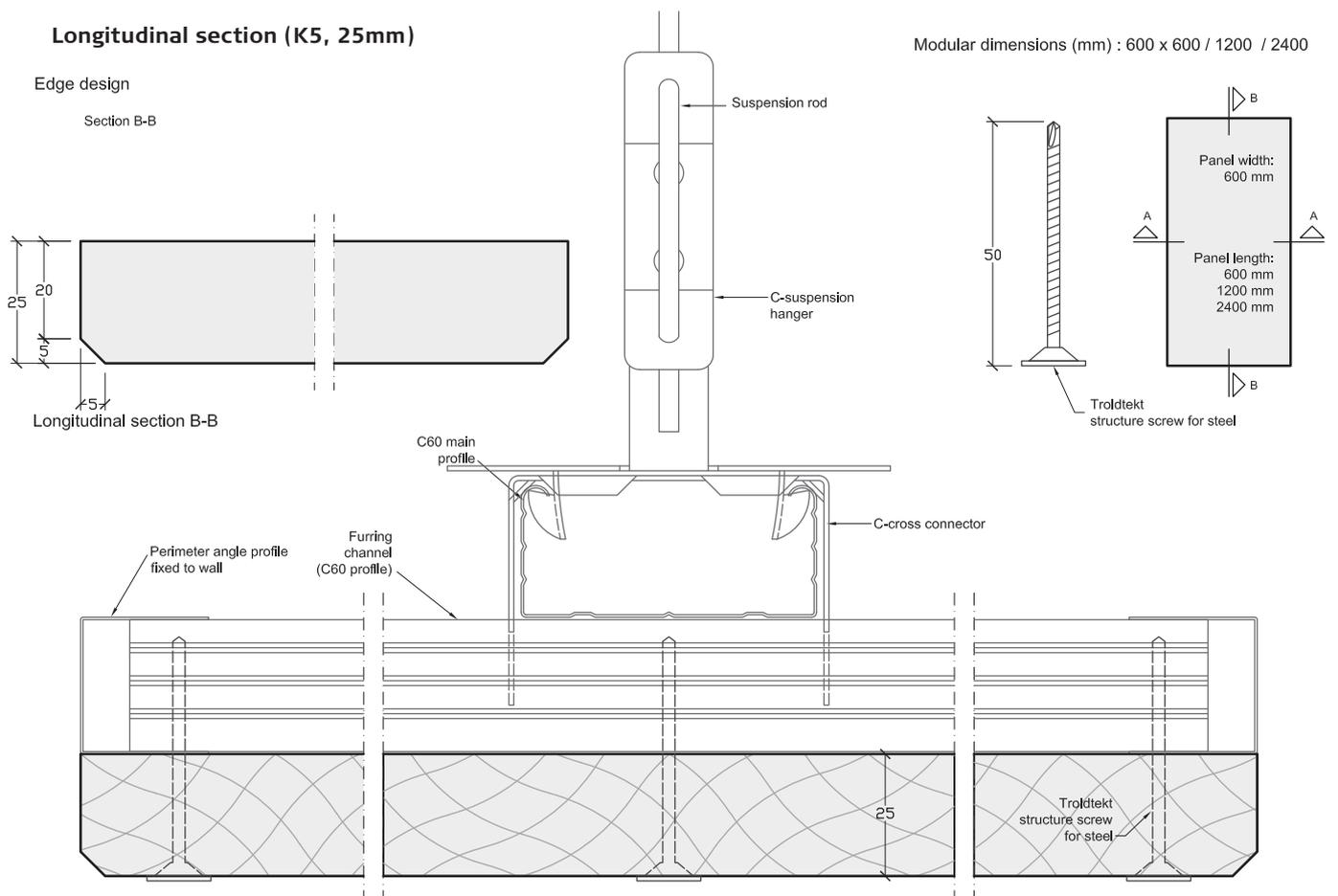
3: If necessary, fold the quick-hanger upper part

C60 Profile system: installation with screws

Cross section (K5, 25mm)



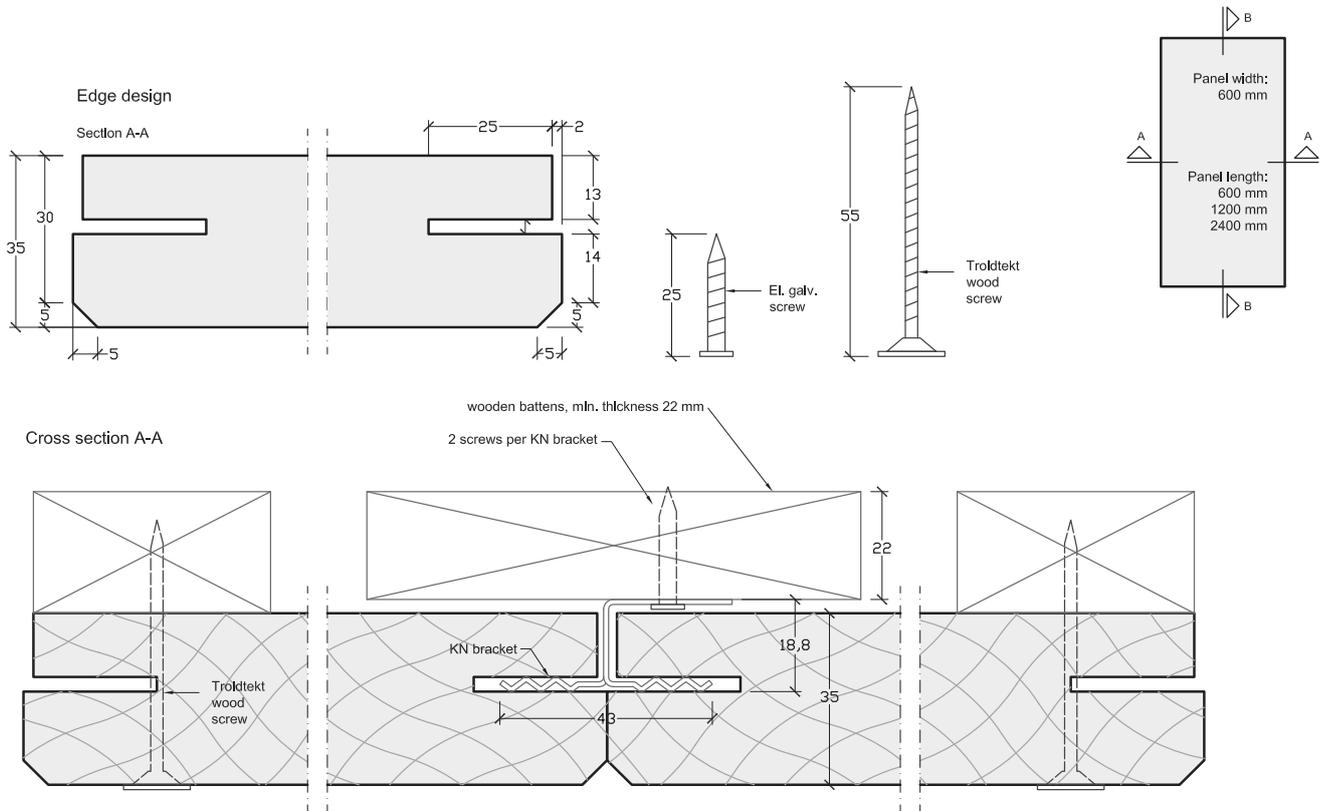
Longitudinal section (K5, 25mm)



C60 Profile system: installation with KN-brackets

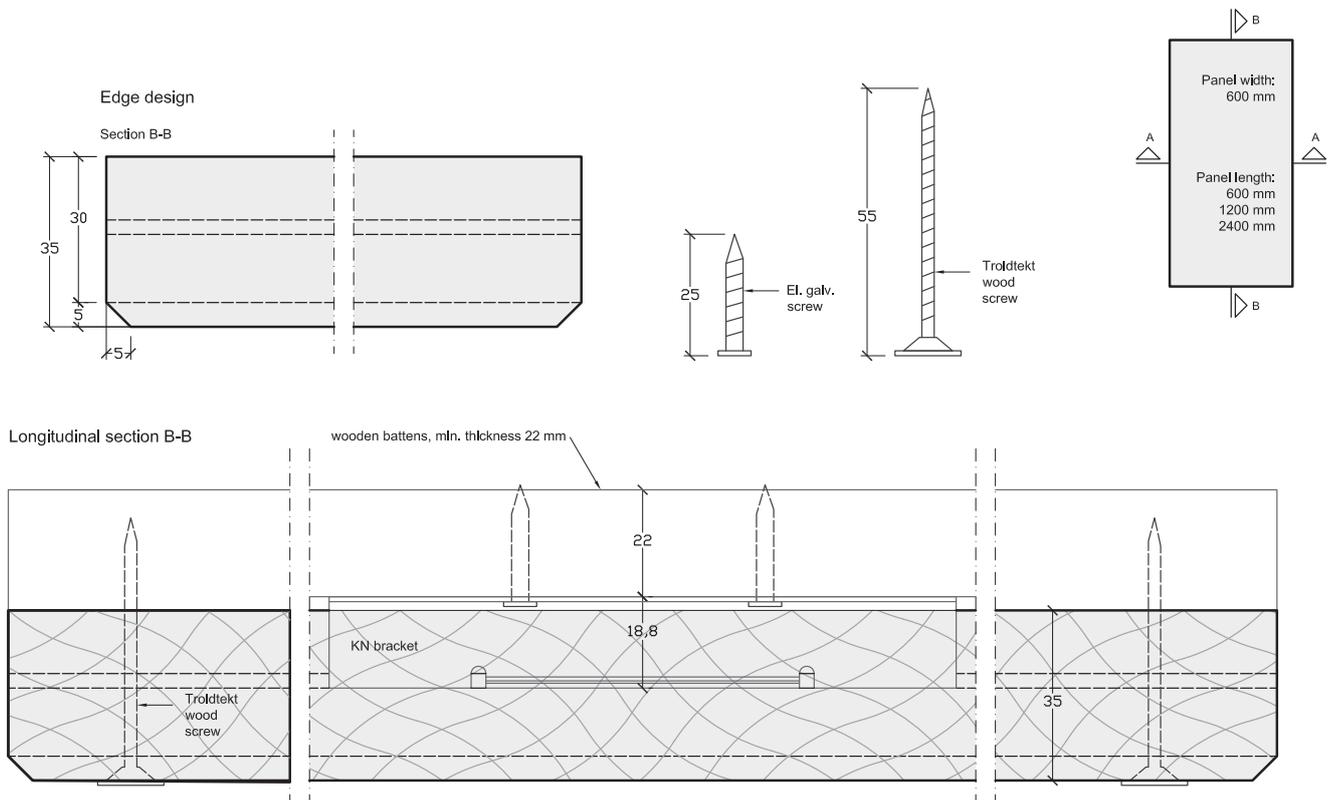
Cross section (K5-N, 35mm)

Modular dimensions (mm) : 600 x 600 / 1200 / 2400



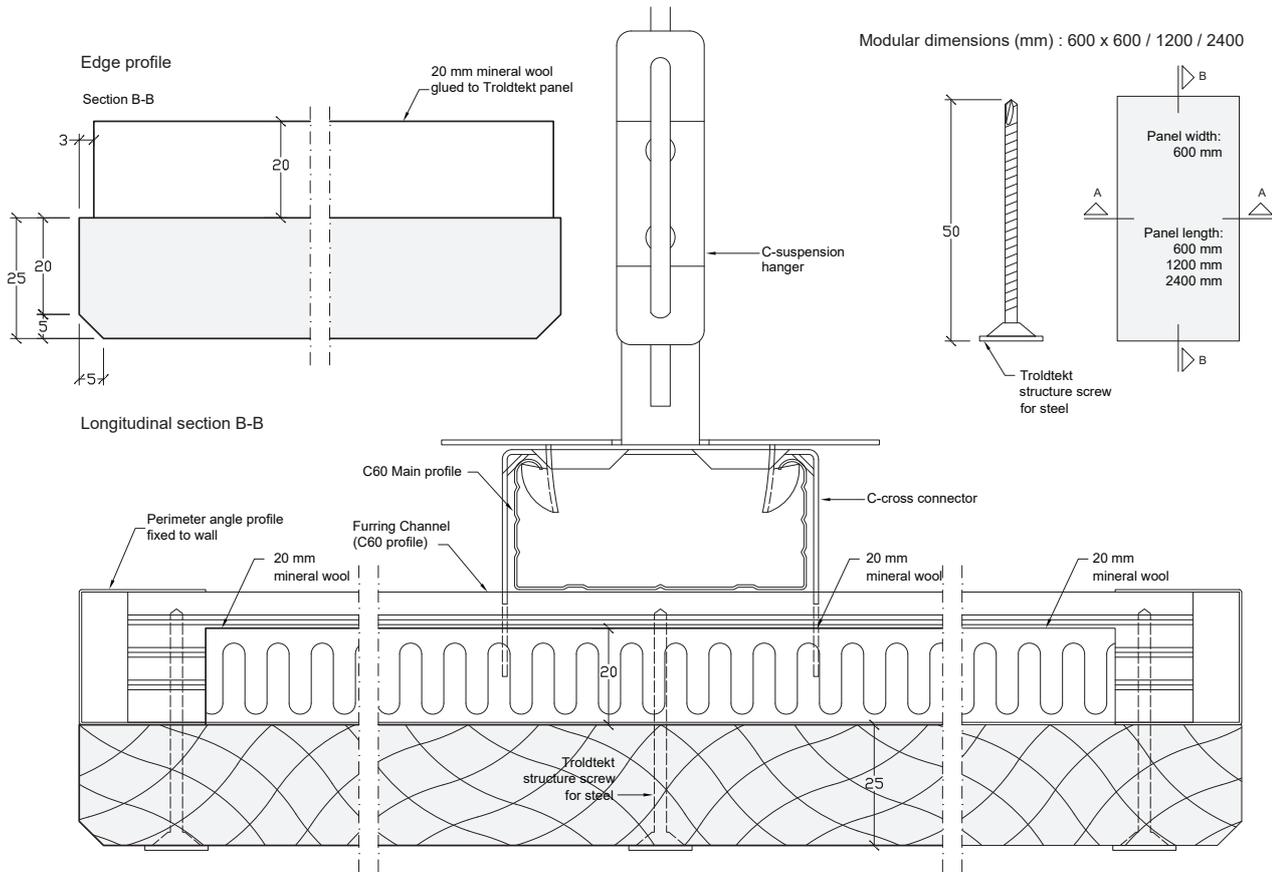
Longitudinal section (K5-N, 35mm)

Modular dimensions (mm) : 600 x 600 / 1200 / 2400

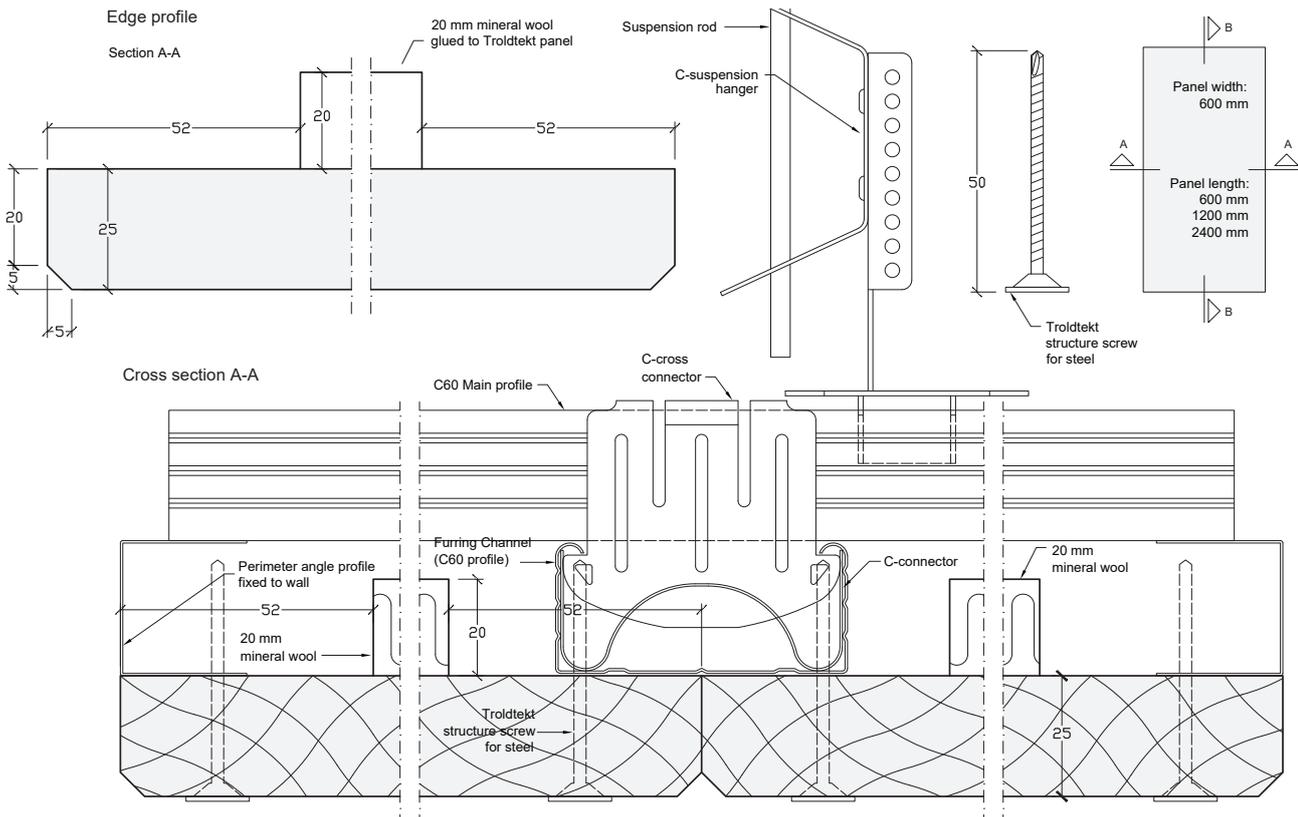


C60 Profile system: Troldekt PLUS, 25+20 mm

Cross section (K5, 25+20mm)

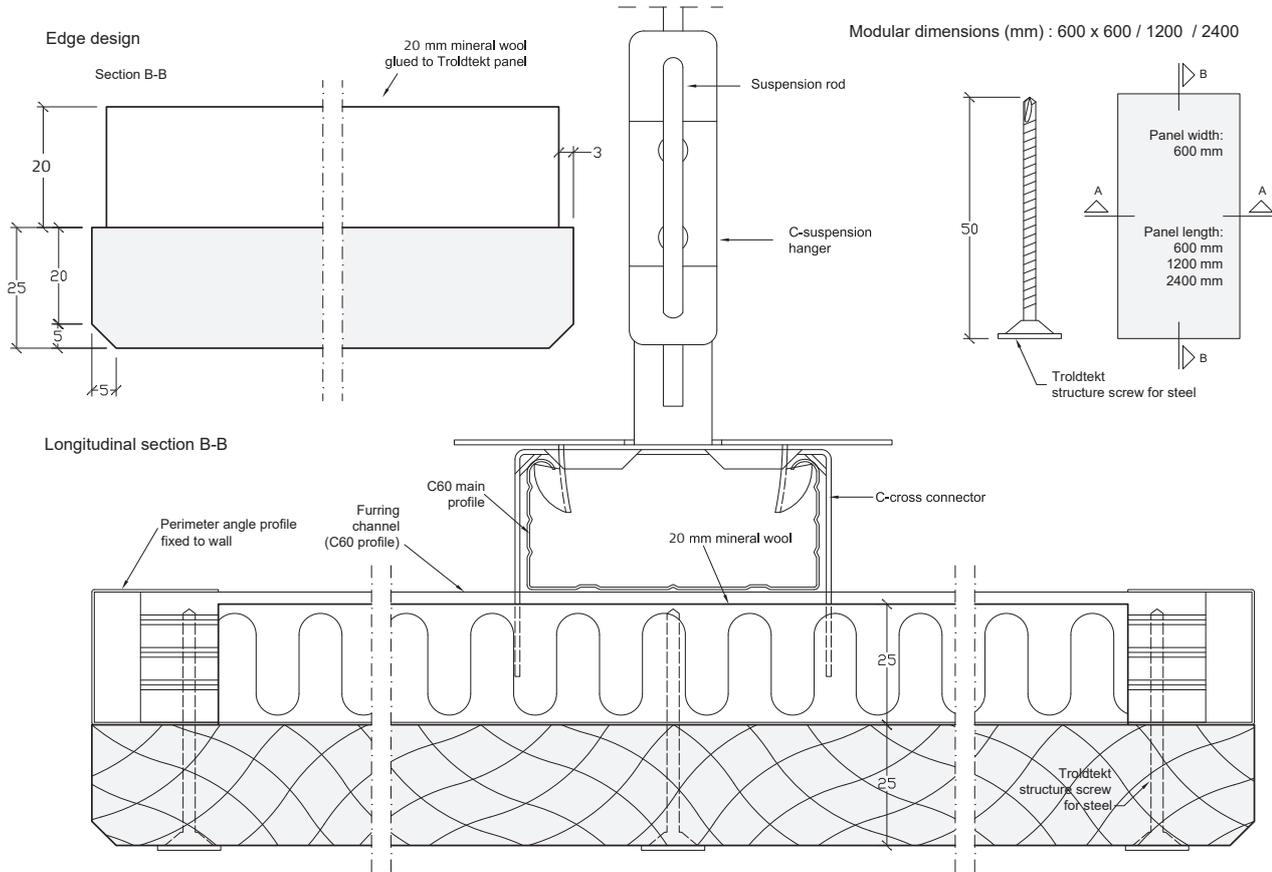


Longitudinal section (K5, 25+20mm)

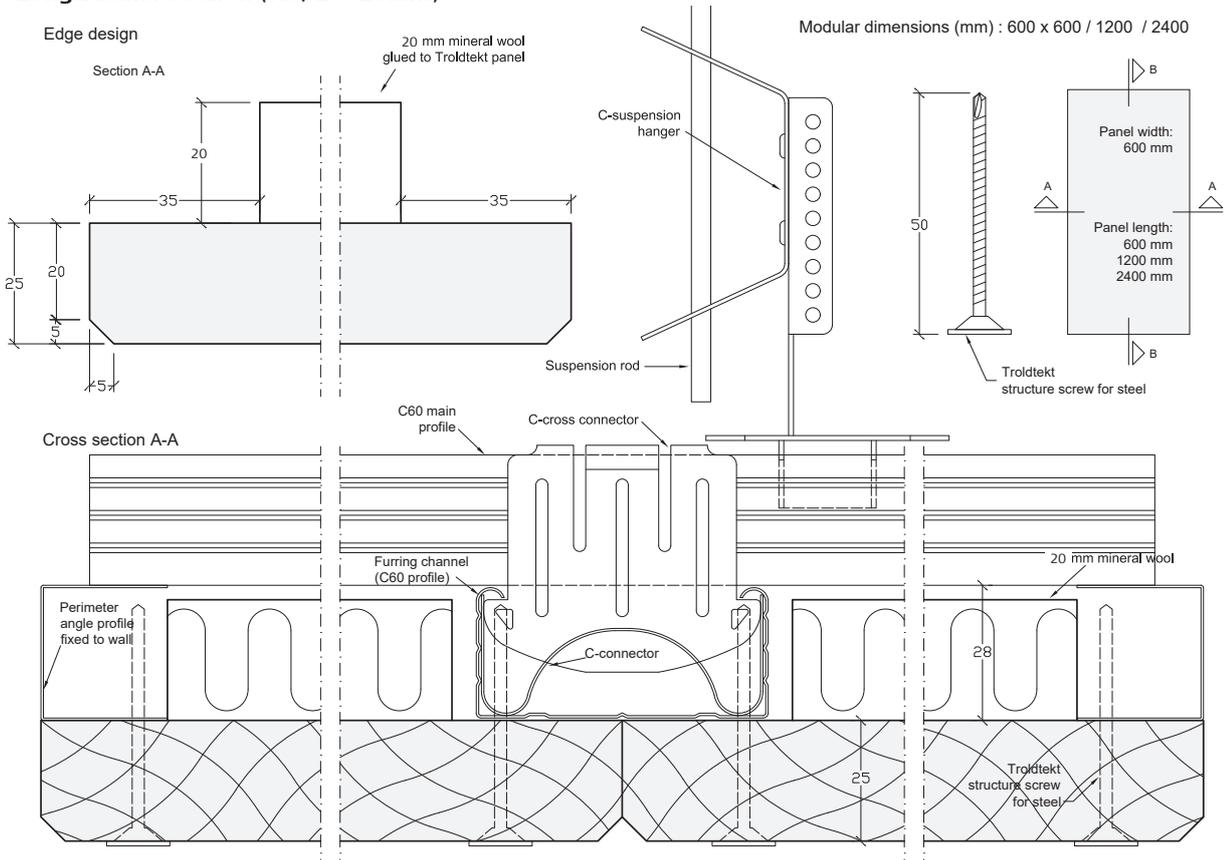


C60 Profile system: Troldekt ventilation

Cross section (K5, 25+20mm)



Longitudinal section (K5, 25+20mm)



Installation instructions

Access panels for C60 profile system

These instructions apply to installation of the Trolldtekt® access panel 300 x 300 mm and 400 x 400 mm in a C60 profile system.

INSPECTION ON RECEIPT

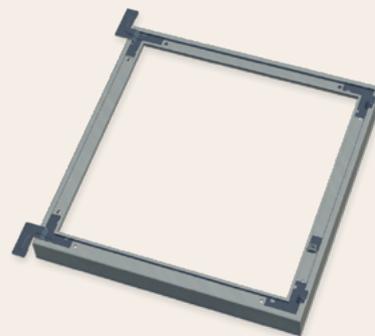
Check that the following components are complete and undamaged on receipt. Please inform the supplier immediately of any visible defects or non-conformities as we are unable to accept claims regarding visible defects or non-conformities once the access

panel has been fitted. Please also refer to the instructions regarding storage and acclimatisation as well as care and maintenance of Trolldtekt acoustic panels – download at www.trolldtekt.com

COMPONENTS

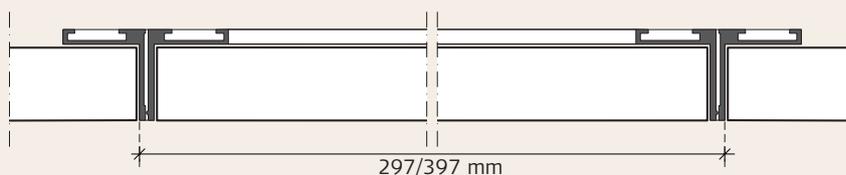


Outer frame

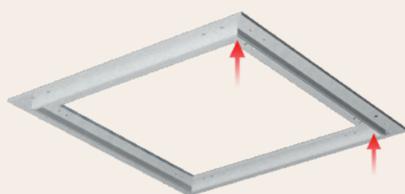


Inner frame

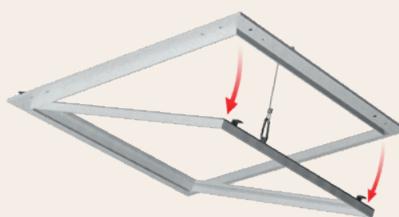
INSTALLATION DIAGRAM



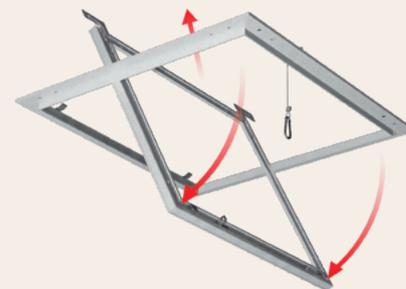
SEPARATING THE ACCESS PANEL PRIOR TO INSTALLATION



1: Release the inner frame from the outer frame by pressing it from below. This releases the latch mechanism.



2: Once the frame is open, release the snap hook.



3: The frames can now be separated.

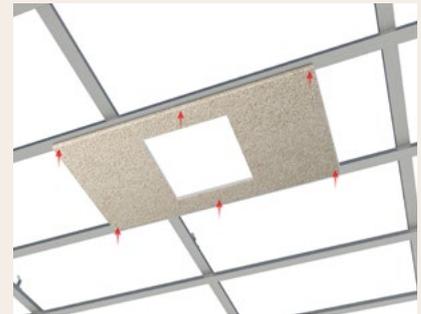
INSTALLATION OF 300 X 300 AND 400 X 400 MM ACCESS PANEL



1: Cut a hole for the outer frame and apply assembly adhesive on the back of the panel.



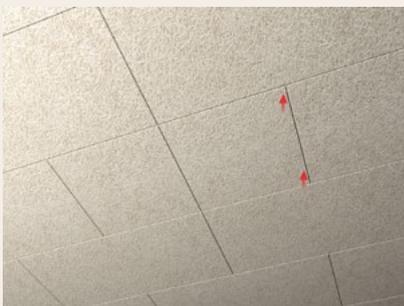
2: Separate the outer frame from the inner frame, and then press it down into the Troldekt® acoustic panel.



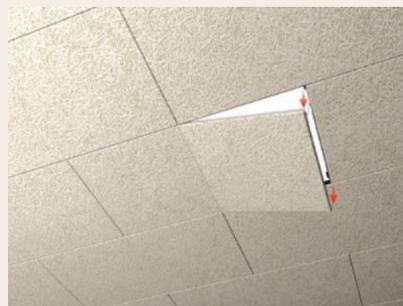
3: With the outer frame installed, now screw the acoustic panel in place in the C60 profile system.



4: Cut out a section of acoustic panel for installing in the inner frame of the access panel. Secure the panel with four self-drilling screws. The access panel can now be put into place.



5: To open the access panel, press the Troldekt acoustic panel lightly under the push release locks.



6: Release the snap hook to open the access panel completely.

Illustrations 5 and 6: Symbolic illustrations.

Installation instructions

Access panels for C60 profile system

These instructions apply to installation of the Trolldtekt® access panel 600 x 600 mm in a C60 profile system.

INSPECTION ON RECEIPT

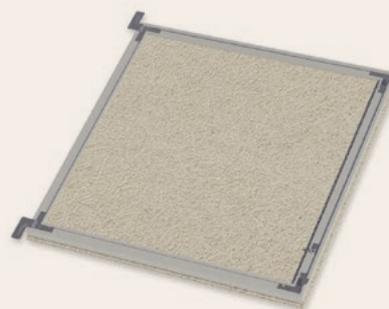
Check that the following components are complete and undamaged on receipt. Please inform the supplier immediately of any visible defects or non-conformities as we are unable to accept claims regarding visible defects or non-conformities once the access

panel has been fitted. Please also refer to the instructions regarding storage and acclimatisation as well as care and maintenance of Trolldtekt acoustic panels – download at www.trolldtekt.com

COMPONENTS

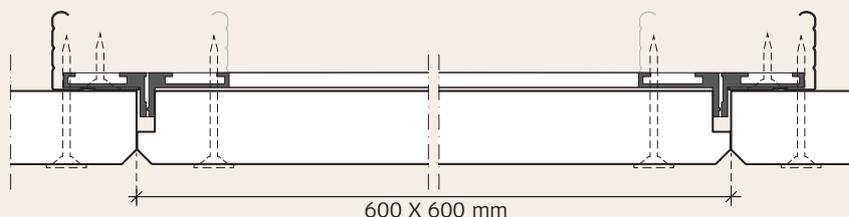


Outer frame



Inner frame with pre-installed acoustic panel

INSTALLATION DIAGRAM (CROSS-SECTION)



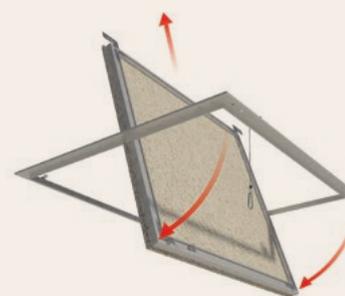
SEPARATING THE ACCESS PANEL PRIOR TO INSTALLATION



1: Release the inner frame from the outer frame by pressing it from below. This releases the latch mechanism.



2: Once the frame is open, release the snap hook.



3: The frames can now be separated.

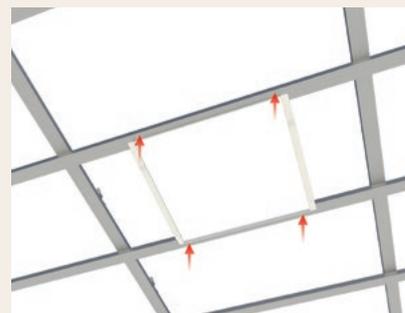
INSTALLATION OF 600 X 600 MM ACCESS PANEL



4: Make cuts as shown to enable installation in the two C60 profiles which will carry the access panel.



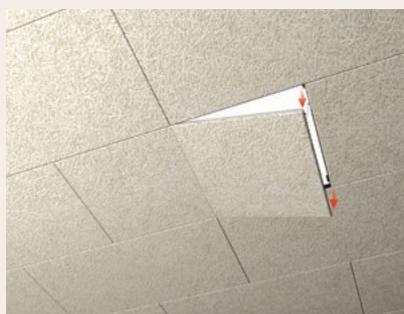
5: Profile system prepared for installation of the 600 mm access panel.



6: Hold the outer frame in position secure it to the profiles with four self-drilling screws. Then replace the access panel inside the outer frame.

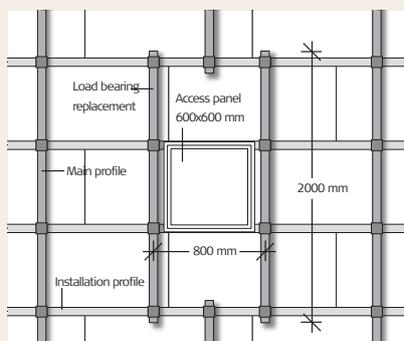


7: To open the access panel, press the Troldekt acoustic panel lightly under the push release locks.

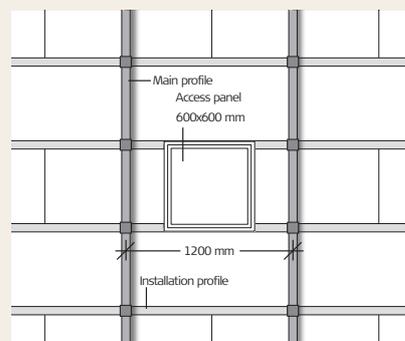


8: Release the snap hook to open the access panel completely.

LOAD BEARING REPLACEMENT



With load bearing replacement, 1 main profile is interrupted.



Without load bearing replacement

Installation instructions

Access panels for C60 profile system

These instructions apply to installation of the Trolldtekt® access panel 600 x 1200 mm in a C60 profile system.

INSPECTION ON RECEIPT

Check that the following components are complete and undamaged on receipt. Please inform the supplier immediately of any visible defects or non-conformities as we are unable to accept claims regarding visible defects or non-conformities once the access

panel has been fitted. Please also refer to the instructions regarding storage and acclimatisation as well as care and maintenance of Trolldtekt acoustic panels – download at www.trolldtekt.com

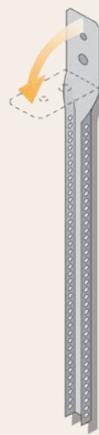
KOMPONENTER



Outer frame



Inner frame with pre-installed acoustic panel



A



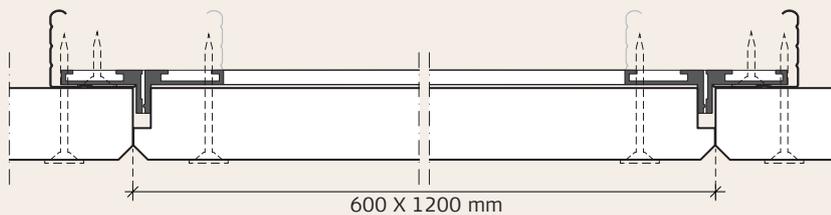
B



C

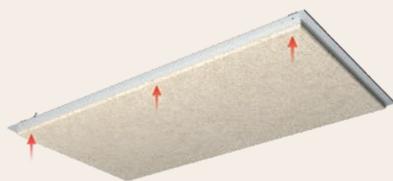
- A. Nonius quick-hanger, upper part
- B. Nonius quick-hanger, lower part
- C. Nonius split-pins, two pins per fitting

INSTALLATION DIAGRAM (CROSS-SECTION)



600 X 1200 mm

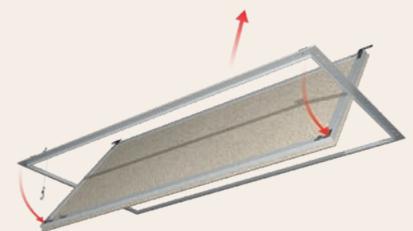
SEPARATING THE ACCESS PANEL PRIOR TO INSTALLATION



- 1: Release the inner frame from the outer frame by pressing it from below. This releases the latch mechanism.



- 2: Once the frame is open, release the snap hook.

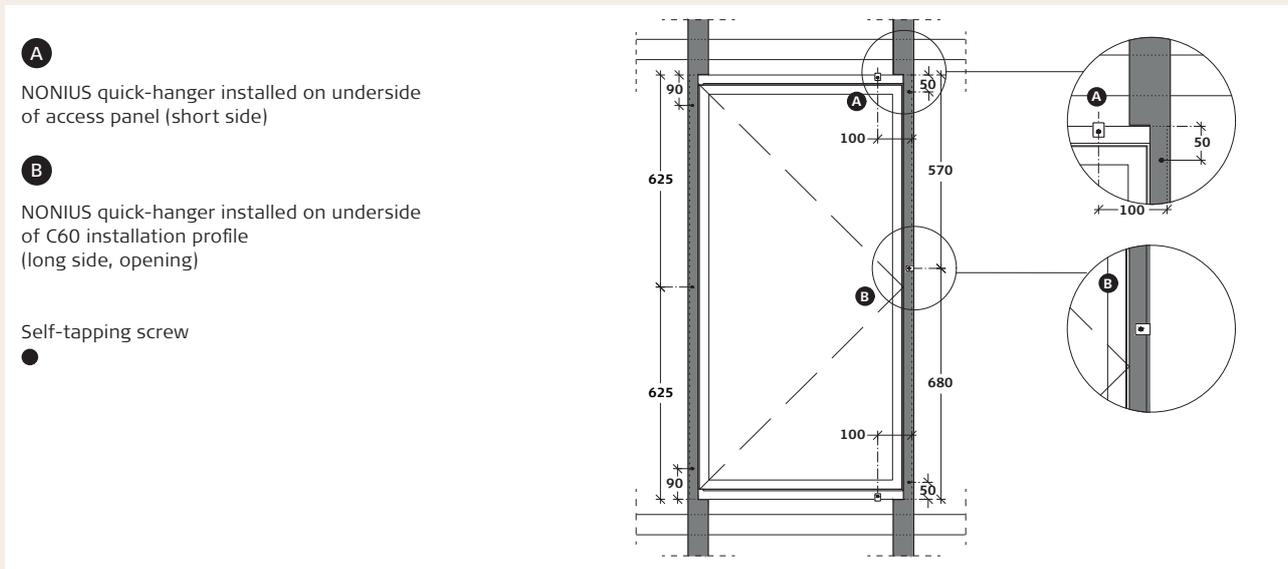


- 3: The frames can now be separated.

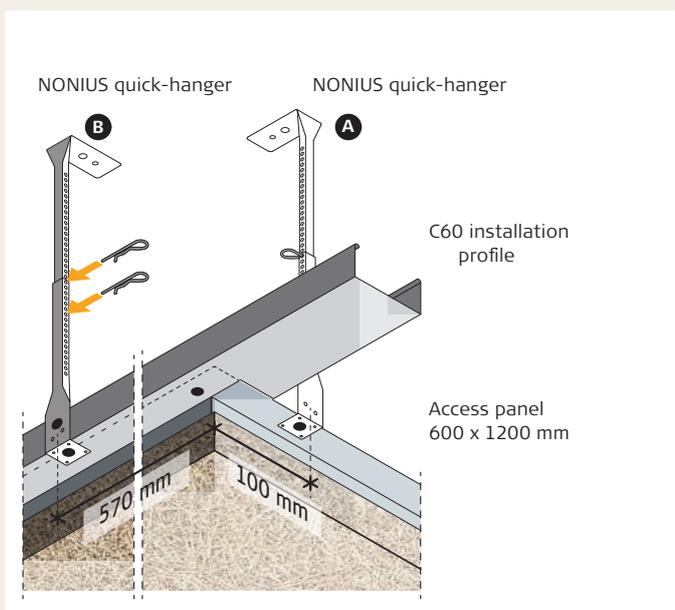
INSTALLATION OF 600X1200 MM ACCESS PANEL



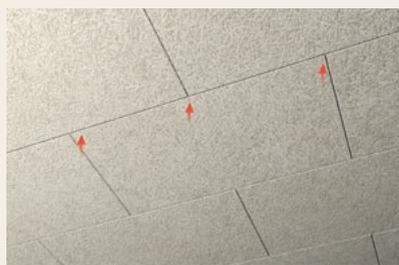
- 1: Make cuts as shown to enable installation in the two C60 profiles which will carry the access panel.
- 2: Profile system prepared for installation of the 1200 mm access panel.



- 3: Hold the outer frame in position and secure it to the profiles with seven self-drilling screws. Then replace the access panel inside the outer frame.



- 4: Install four nonius quick-hangers here.



- 6: Release the snap hook to open the access panel completely.

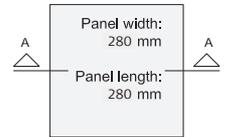
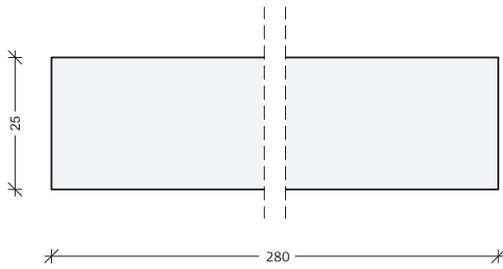


- 5: To open the access panel, press the Troldekt acoustic panel lightly under the push release locks.

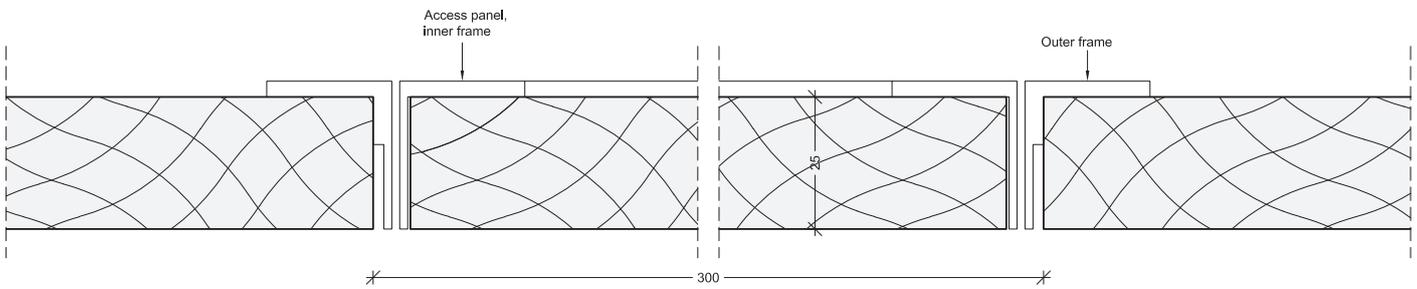
Cross section (300 X 300 mm, K0 edge, 25 mm panel)

Edge design
Section A-A

Modular dimensions (mm) : 300 X 300



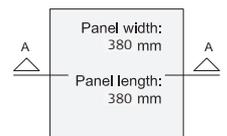
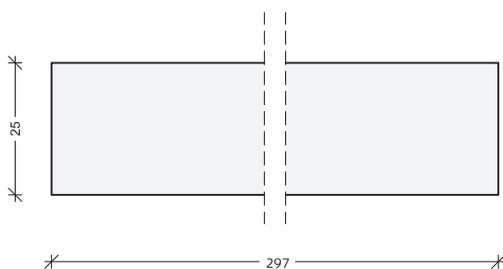
Cross section A-A



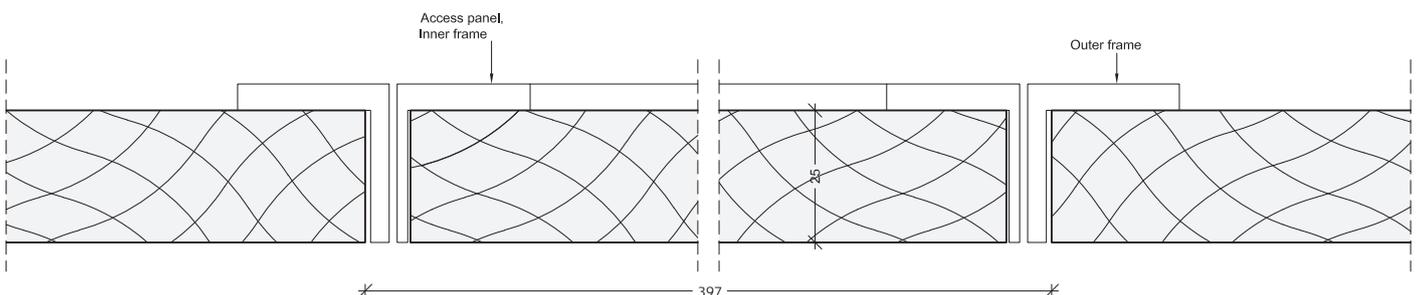
Cross section (400 X 400 mm, K0 edge, 25 mm panel)

Edge design
Section A-A

Modular dimensions (mm) : 400 x 400

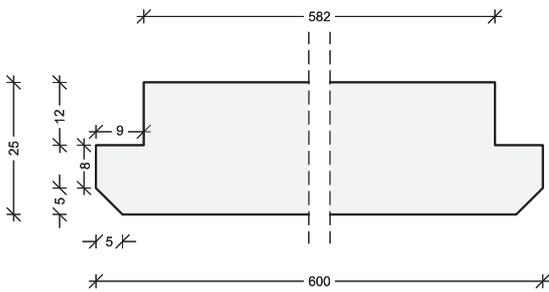


Cross section A-A

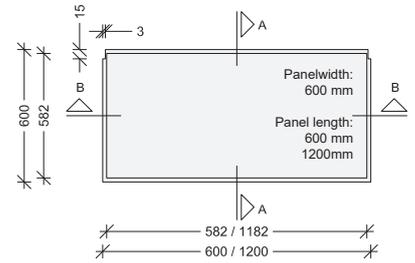


Cross section, 600 x 600 mm / 600 x 1200 mm (K5 edge, 25mm panel)

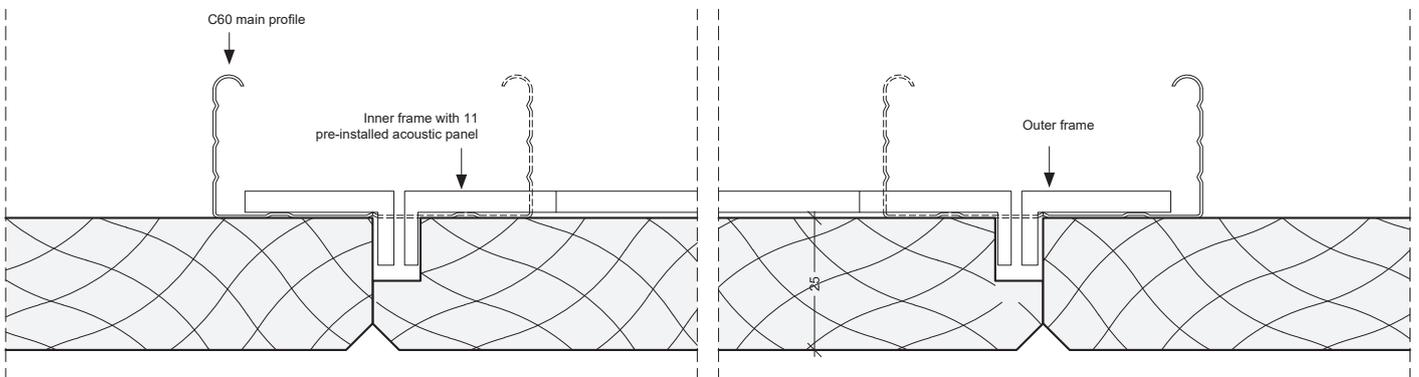
Edge design
Section A-A



Modular dimensions (mm): 600 x 600 / 1200

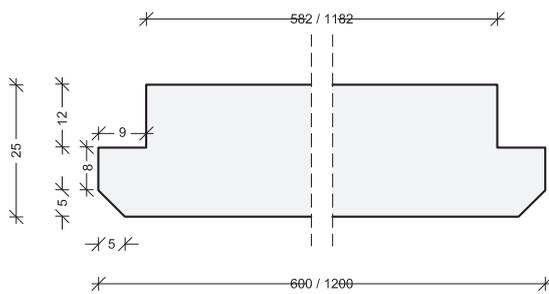


Cross section A-A

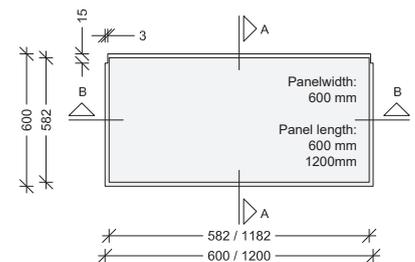


Longitudinal section, 600 x 600 mm / 600 x 1200 mm (K5 edge, 25mm panel)

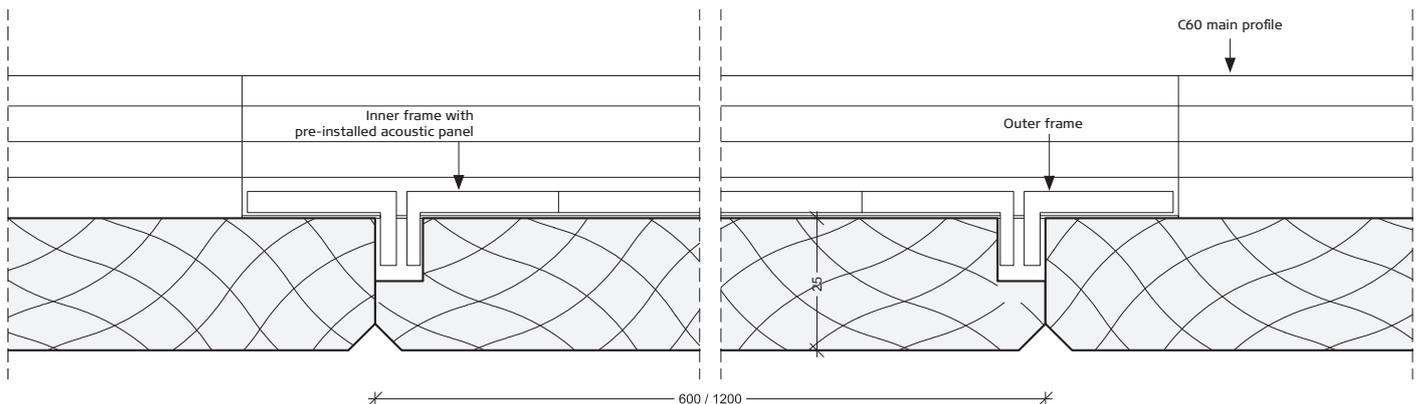
Edge design
Section B-B



Modular dimensions (mm): 600 x 600 / 1200



Longitudinal section B-B

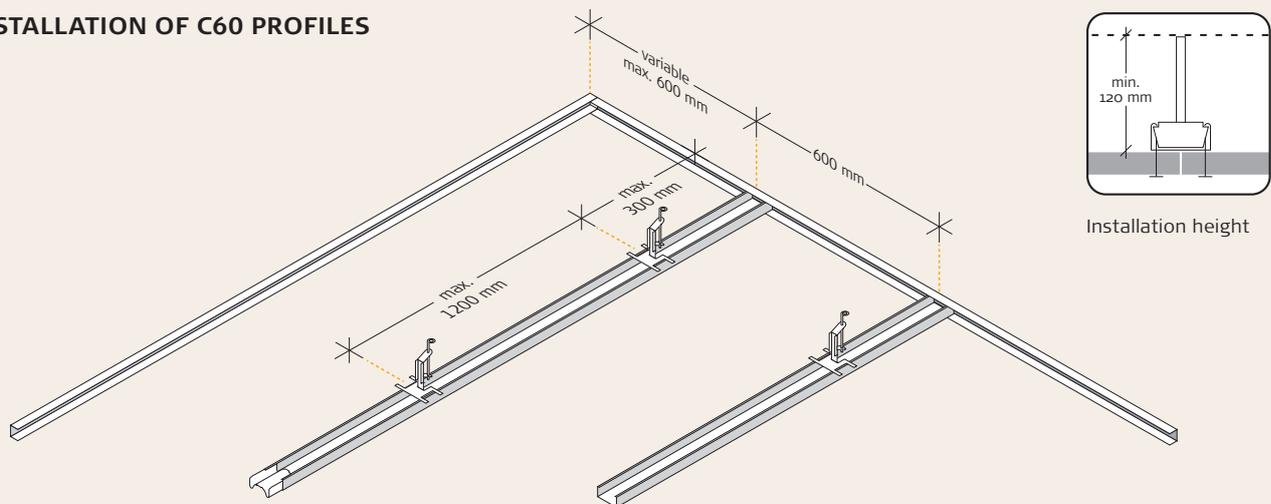


Installation instructions

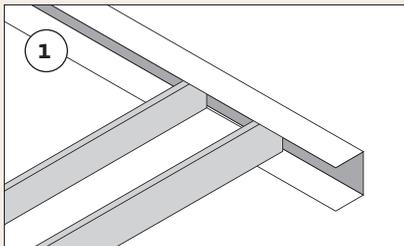
C60 profiles suspended with quick-fit suspension brackets

These instructions apply to installation of C60 profiles suspended with quick-fit suspension brackets. Download installation instructions for all Trolldtekt® panel types from www.trolldtekt.com.

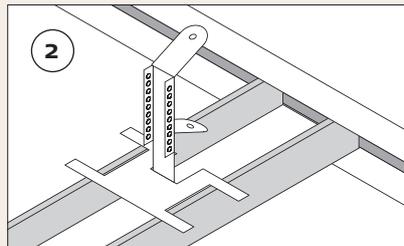
INSTALLATION OF C60 PROFILES



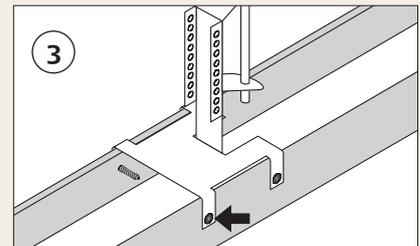
STRUCTURAL SOFFIT - EXAMPLE



1: Mark the horizontal ceiling at the required height on all adjoining walls. Mark the lower side of the U-profile and fix it to the wall using 6-mm dowels in predrilled holes. Determine and mark the anchor points for the C60 profiles. Always install the first quick-fit suspension bracket max. 300 mm from the wall. Distribute the remaining quick-fit suspension brackets with a max. spacing of 1200 mm. Assemble the ring hook and quick-release bracket to the desired length and fasten them safely in the construction above before additional assembly. Then bend the ring hook to a vertical position.



2: Hold a C60 profile with the opening facing upwards and fix a quick-fit suspension bracket at every hanger point. Assemble the C60 profiles longitudinally using C-connectors, and terminate the C60 profiles in the U-profile. If possible, divide the ceiling space to allow for adjustments of min. 300 mm on both sides.



3: The quick-fit suspension bracket may be fixed to the main profile using screws in case of increased loads.

General note

Profile and hanger distances depend on the panel thickness and weight, possible additional loads (installation, fitting, backing and wind) and the maximum permissible load capacity of the hangers.

The design should take into account a maximum deflection of L/500 (deflection class 1). In the case of system tests, the specifications of the corresponding test report are relevant.

COMPONENTS



Product name	C60 profile 60×27 mm	C-connector	C-quick-fit suspension bracket	U-profile 28×27 mm
Length (mm)	4000	80	100	3000
Quantity per pack	12 pcs.	100 pcs.	50 pcs.	16 pcs.
Approx. qty. per m ²	1.7 linear m	0.5 pcs.	1.4 pcs.	According to measurement



Product name	Ring hook
Length (mm)	120, 250, 375, 500, 750, 1000
Quantity per pack	100 pcs.
Approx. qty. per m ²	1.4 pcs.

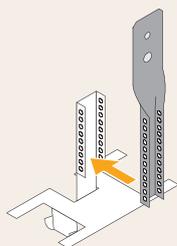
NONIUS

To minimise wind-related pressure/suction impact, install the Troldekt C60 profile system using fixed quick-hangers – nonius quick-hangers – instead of ring hooks.

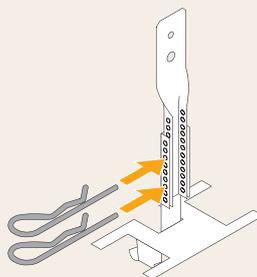


Product name	Nonius quick-fit suspension bracket	Nonius quick-hanger	Nonius split-pin
Length (mm)	100	Variable	-
Quantity per pack	50 pcs.	100 pcs.	100 pcs.
Approx. qty. per m ²	1.4 pcs.	1.4 pcs.	2.8 pcs.

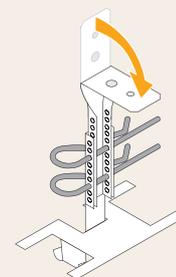
NONIUS, INSTALLATION INSTRUCTIONS



1: Place the nonius quick-hanger in the quick-fit suspension bracket



2: Secure the quick-hanger with nonius split-pins



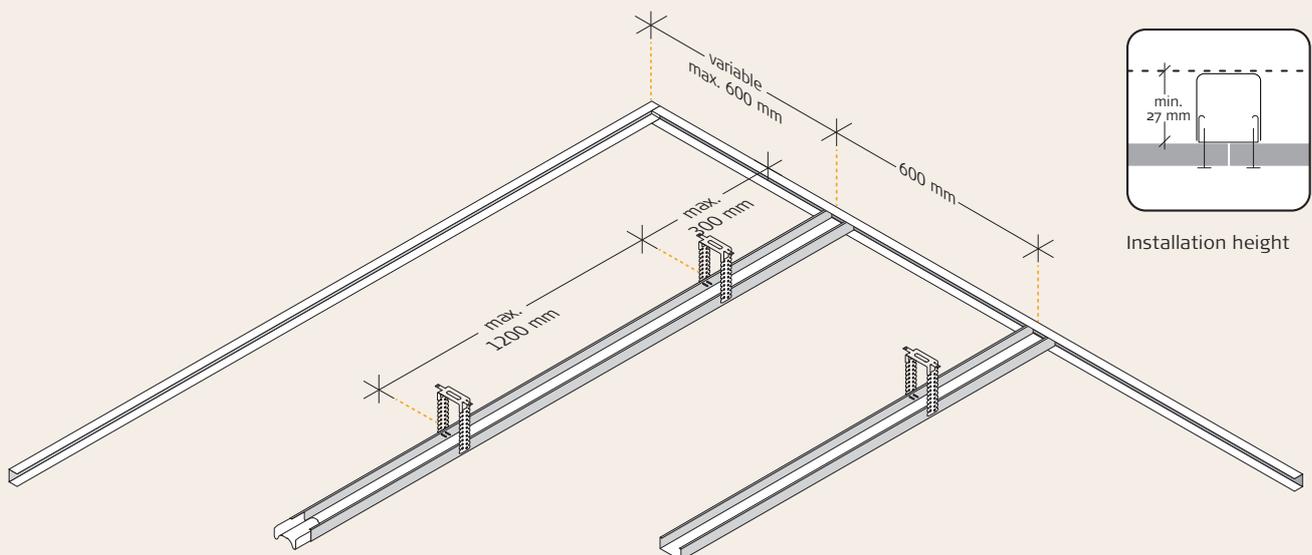
3: If necessary, fold the quick-hanger upper part

Installation instructions

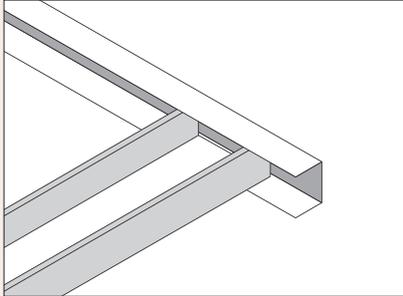
C60 profiles suspended with adjustable suspension brackets (27-120 mm)

These instructions apply to installation of C60 profiles suspended with adjustable suspension brackets. Download installation instructions for all Troldekt® panel types from www.troldekt.com.

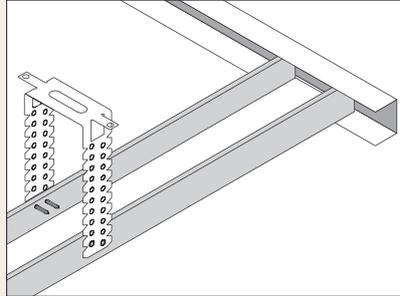
INSTALLED ON C60 PROFILES, SUSPENDED WITH ADJUSTABLE SUSPENSION BRACKETS (27-120 MM)



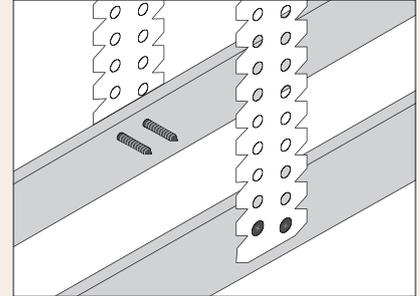
STRUCTURAL SOFFIT - EXAMPLE



1: Mark the horizontal ceiling at the required height on all adjoining walls. Mark the lower side of the U-profile and fix it to the wall using 6-mm dowels in predrilled holes. Determine and mark the anchor points for the C60 profiles. Always install the first adjustable suspension bracket max. 300 mm from the wall. Distribute the remaining adjustable suspension brackets with a max. spacing of 1200 mm.



2: Hold a main profile with the opening facing upwards and screw on the adjustable suspension bracket to the side of the profile at the desired height. Bend back any excess section of the adjustable suspension bracket. Assemble the main profiles longitudinally using C-connectors, and terminate the main profiles in the U-profile.



3: If possible, divide the ceiling space to allow for adjustments of min. 300 mm on both sides.

General note

Profile and hanger distances depend on the panel thickness and weight, possible additional loads (installation, fitting, backing and wind) and the maximum permissible load capacity of the hangers.

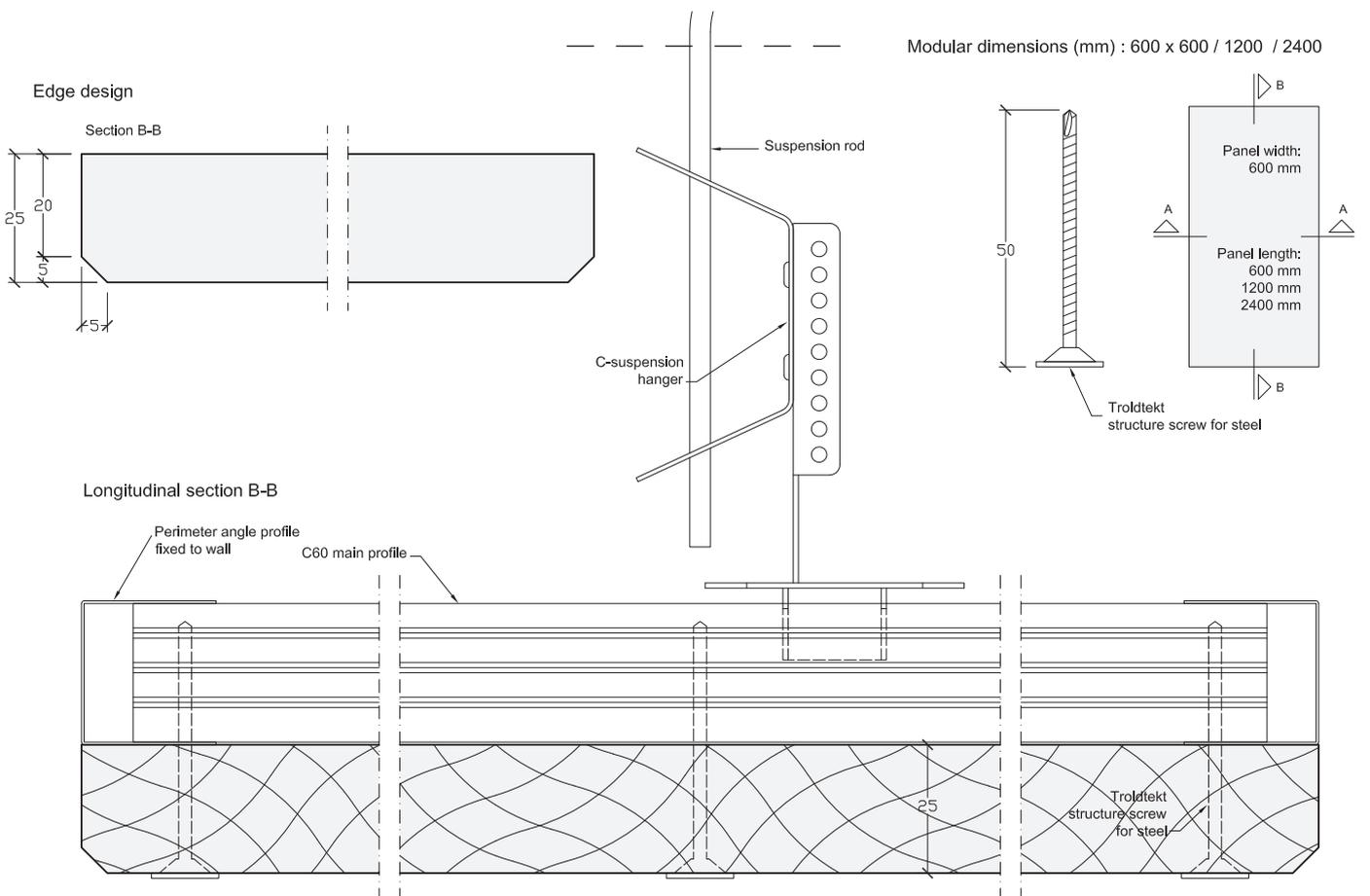
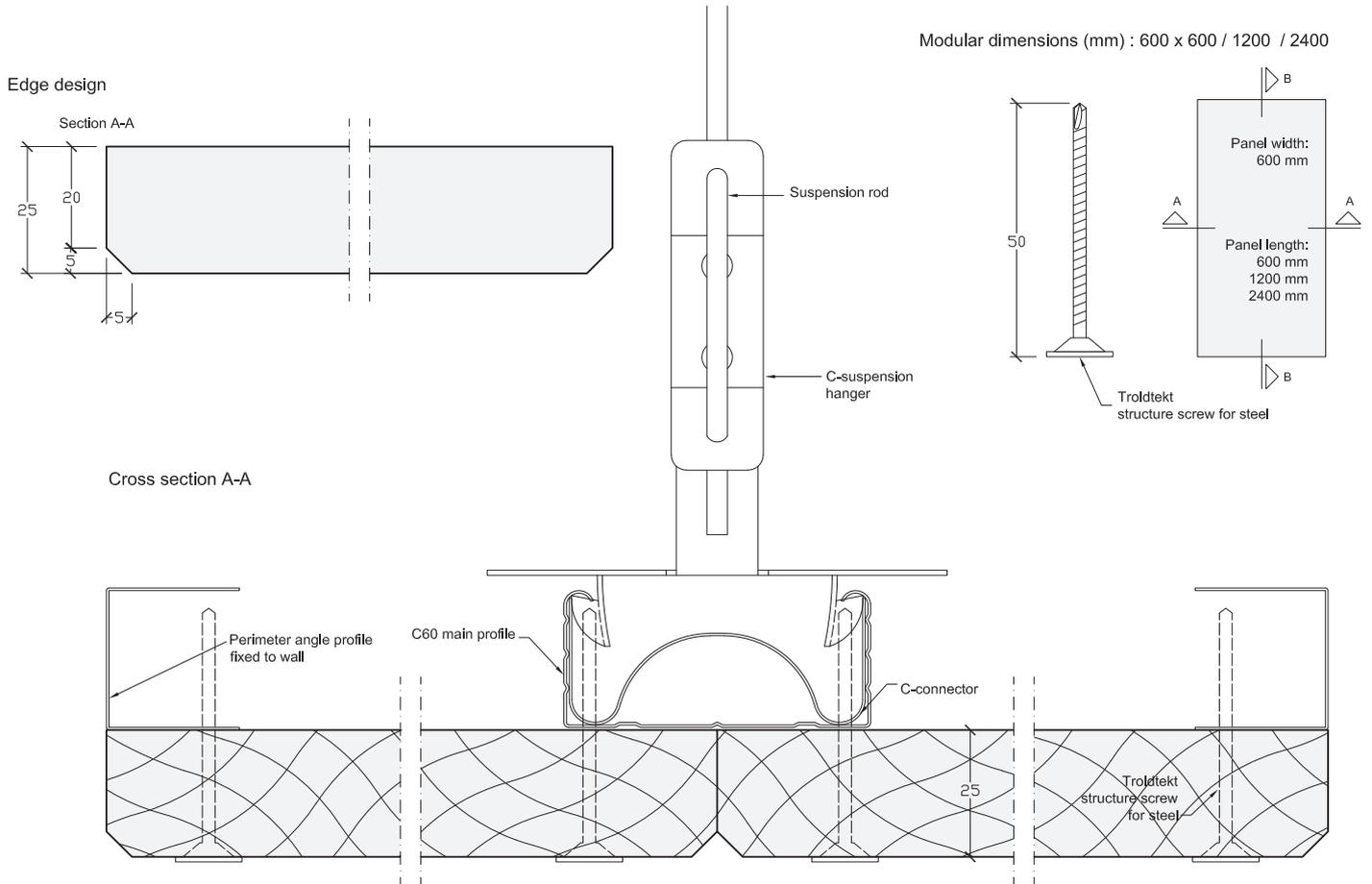
In the case of system tests, the specifications of the corresponding test report are relevant.

COMPONENTS

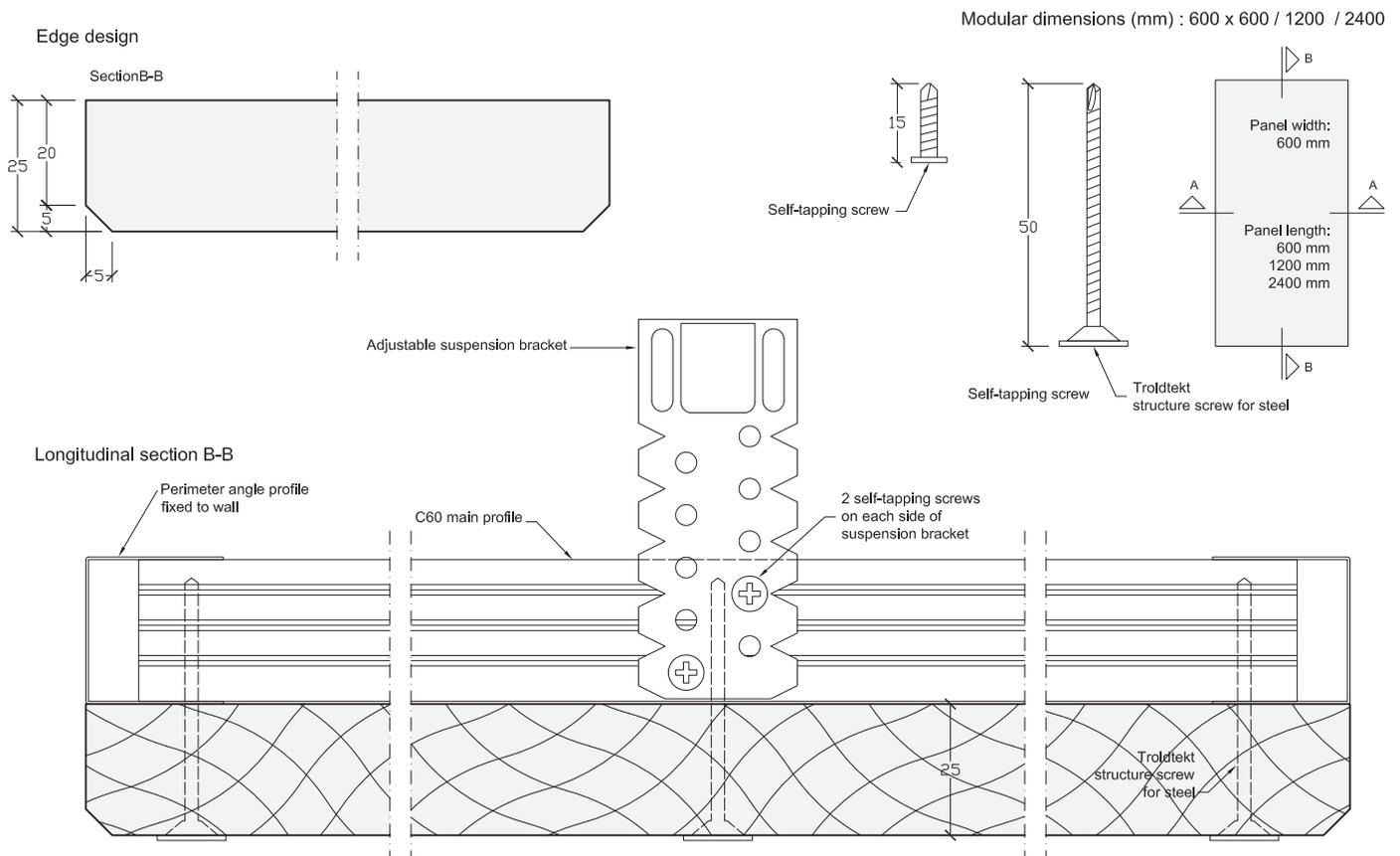
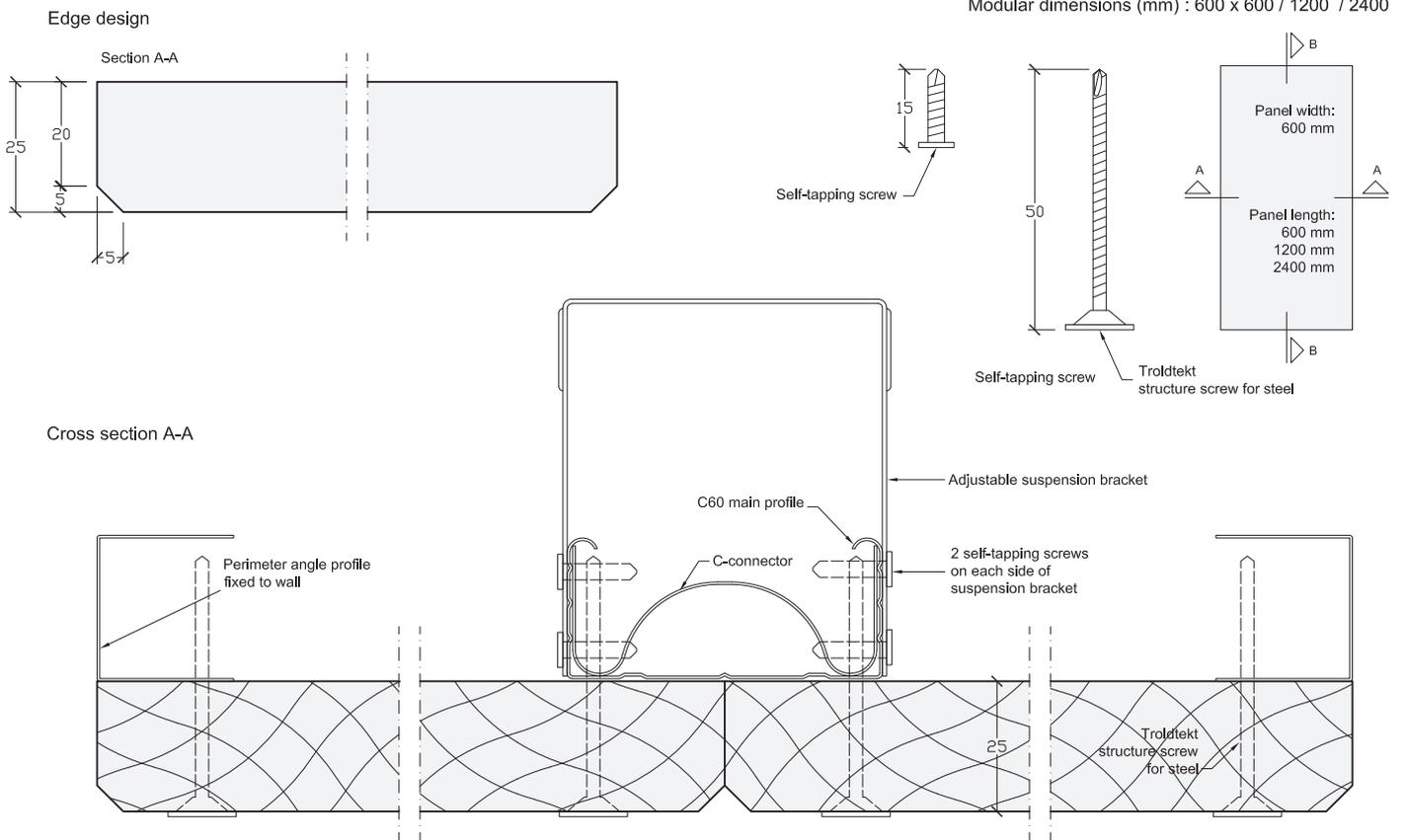


Product name	C60 profile 60×27 mm	C-connector	U-profile 28×27 mm	Adjustable suspension bracket
Length (mm)	4000	80	3000	27-120
Quantity per pack	12 pcs.	100 pcs.	16 pcs.	100 pcs.
Approx. qty. per m ²	1.7 linear m	0.5 pcs.	According to measurement	1.4 pcs.

Details: C60 profiles suspended with adjustable suspension brackets (27-120 mm)



Details: C60 profiles suspended with adjustable suspension brackets (27-120 mm)

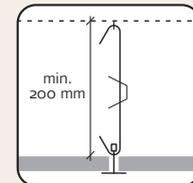
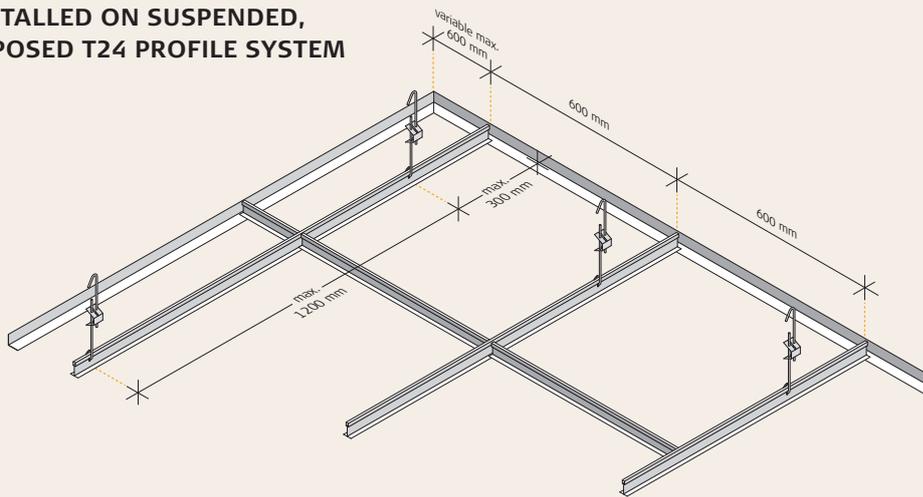


Installation instructions

Suspended, exposed T24 profile system

These instructions apply to installation of exposed T24 profile system.
 Download installation instructions for all Troldekt® panel types from www.troldekt.com.

**INSTALLED ON SUSPENDED,
 EXPOSED T24 PROFILE SYSTEM**



Installation height

Depending on the choice of hanger, constructions with a very low installation height can be realised. This significantly limits the revision capability of the panels.

We recommend a minimum installation height of 200 mm with e.g. adjustable hanger.

COMPONENTS



Product name	Perimeter angle profile, V-30 - 30x30 mm	Cross tee, T-24 - 24x38 mm	Main profile, T-24 - 24x38 mm
Size/length (mm)	3000	600	3700
Quantity per pack	30 pcs.	60 pcs.	20 pcs.
Approx. qty. per m ²	According to measurement	600x600mm: 2.8 pcs.	1.7 linear m



Product name	Shadow-edge angle profile, W-8 -17+14 / 8+17 mm	Adjustable hanger
Size/length (mm)	3000	175-275 / 200-360 / 320-600 / 540-1000 / 1035-2000
Quantity per pack	25 pcs.	100 pcs.
Approx. qty. per m ²	According to measurement	1.4 pcs.

INSTALLATION - EXAMPLE

1. Fix the shadow-edge angle profiles (with the 8-mm tall side in vertical position) or the perimeter angle profiles securely to the wall with a maximum spacing of 300 mm. Additionally, fasten 50 mm from profile ends at joints, abutments and endings. (See figs. **A** and **B**). Hang the main profiles in parallel at 600 mm, with hanger points at max. 1200 mm. There should be max. 300 mm from the transverse wall to the first hanger. The main profiles and cross tees must lap on the perimeter angle or shadow-edge angle profiles (see figs. **C** and **D**).

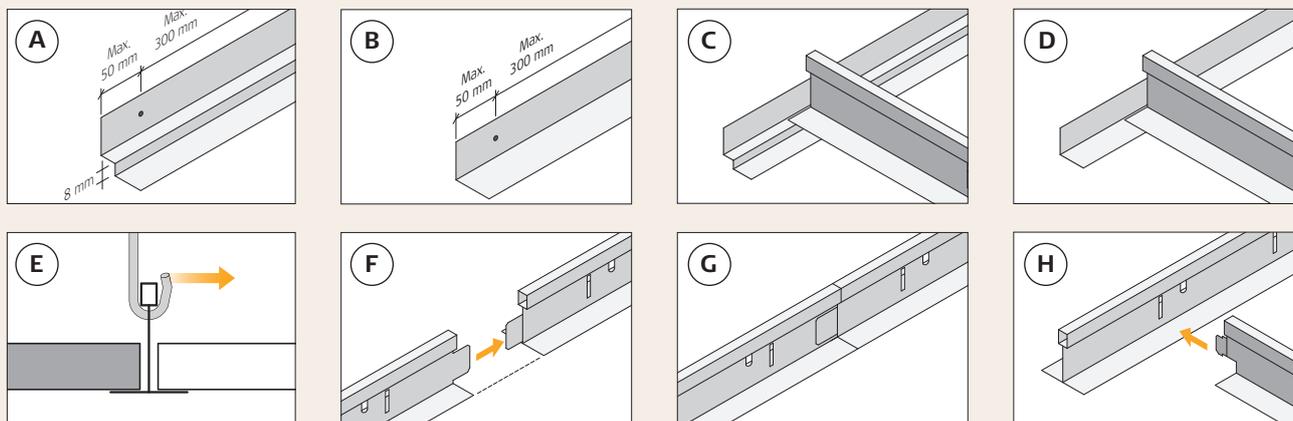
2. Fix the hangers securely to the structure above. In order to facilitate the placing of the Troldekt panels, the hooks on the adjustable quick-hangers must face the same way (see fig. **E**), and the hanger should be at least 200 mm distance to underlying installations, cable ducts etc., where the Troldekt panels must be removable. In case of increased loads from e.g. lighting armatures, the hanger spacing should be reduced.

Fix heavy armatures etc. to the structure above. Cut the main profiles at the wall and ensure that the slots are placed correctly in relation to the cross profiles

near the wall. Use a hacksaw or a profile cutter to cut the profiles. Connect the main profiles by pushing the ends together so that they lock. (See figs. **F** and **G**).

3. Place the cross tees between the main profiles by inserting the tongues of the cross tees into the slots of the main profiles, spaced at 150 mm. (See fig. **H**). When you have installed the profiles, check that all hangers are secure. Adjust if necessary. Now lay the Troldekt panels in the grid.

NB: It is not recommended to install the profiles/panels in broken bond.



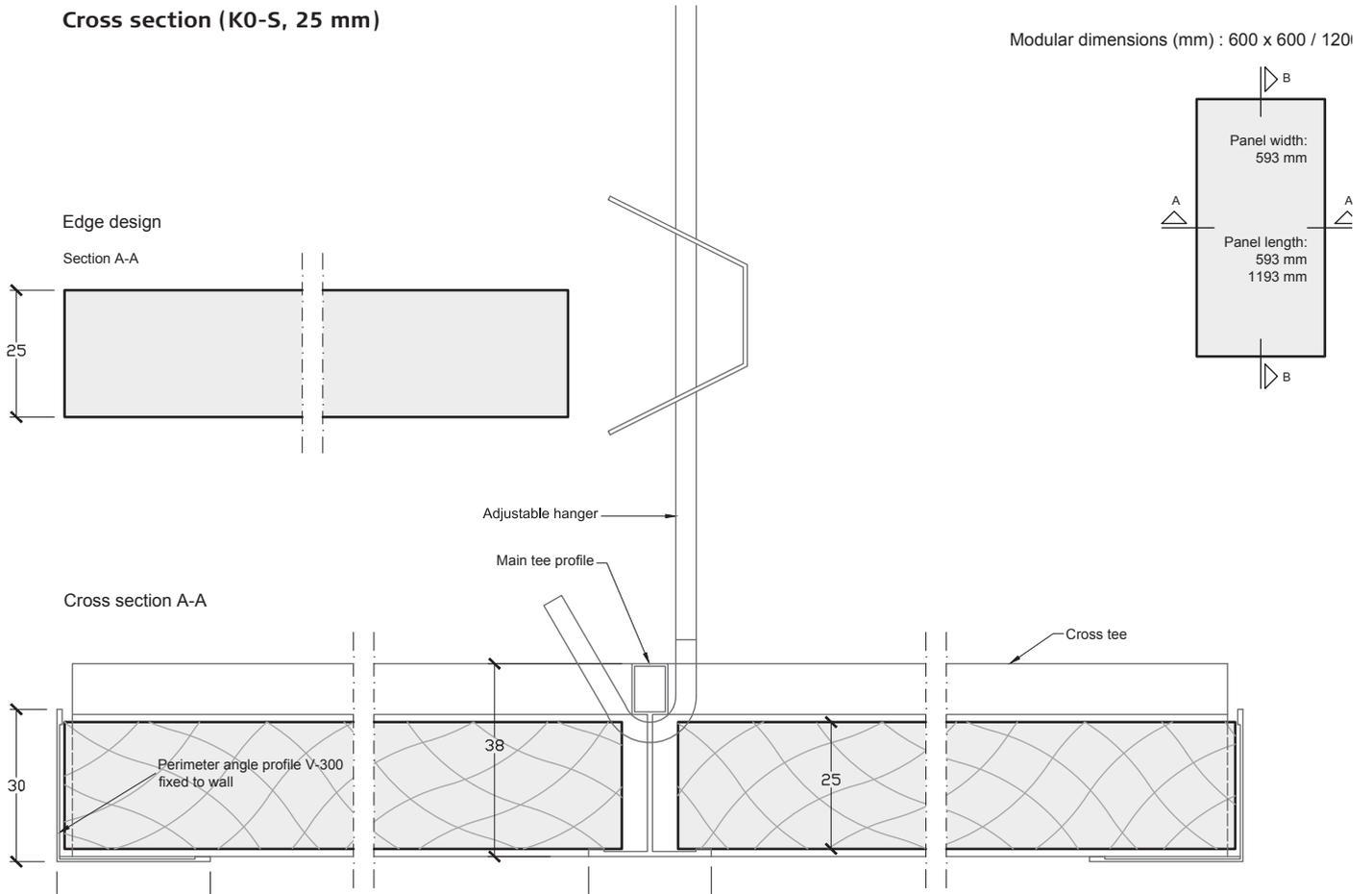
General note

Layout, profile and hanger distances depend on the panel thickness and weight, possible additional loads (installation, fitting, backing and wind) and the maximum permissible load capacity of the hangers.

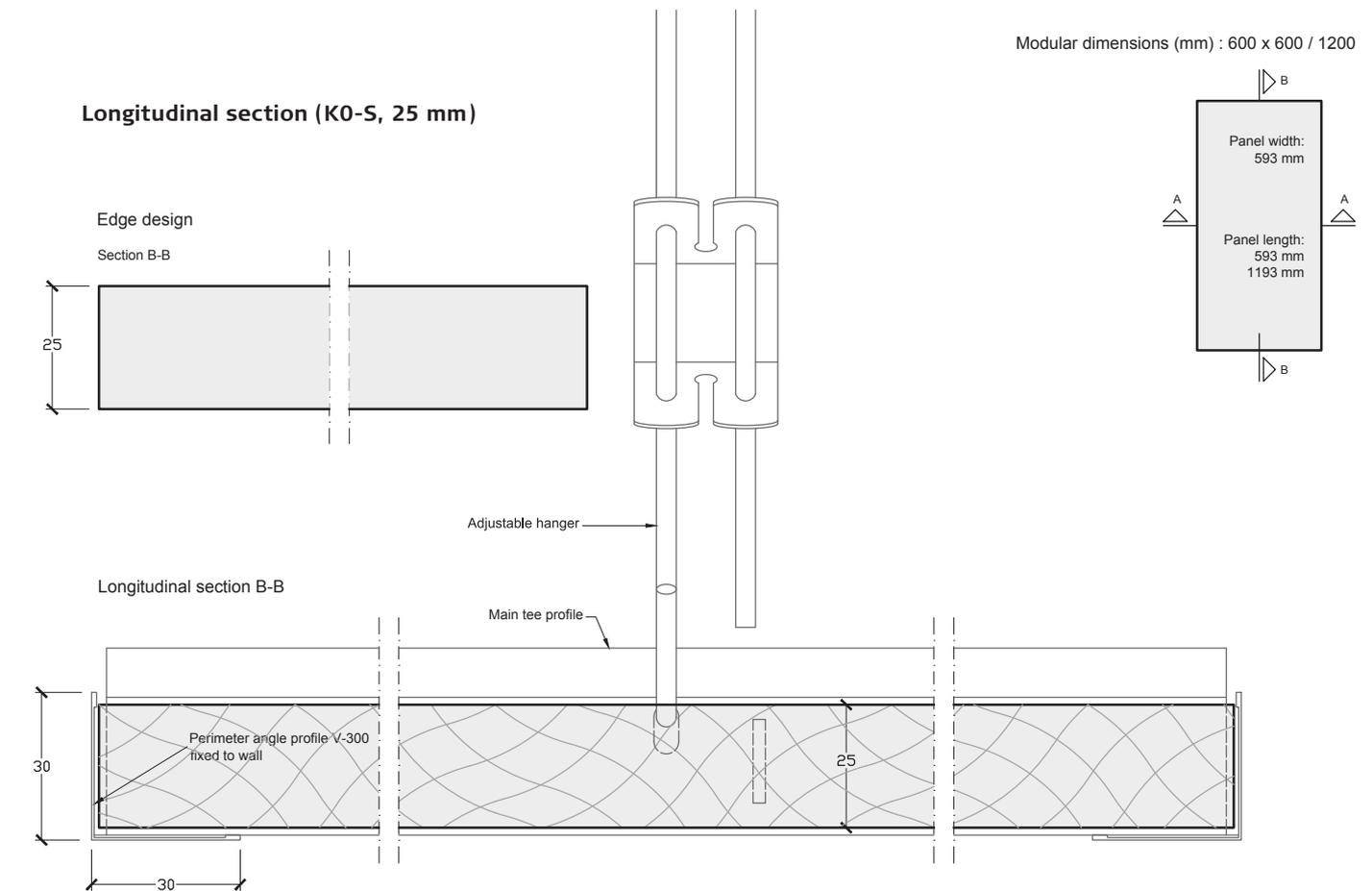
The design should take into account a maximum deflection of L/500 (deflection class 1).

In the case of system tests, the specifications of the corresponding test report are relevant.

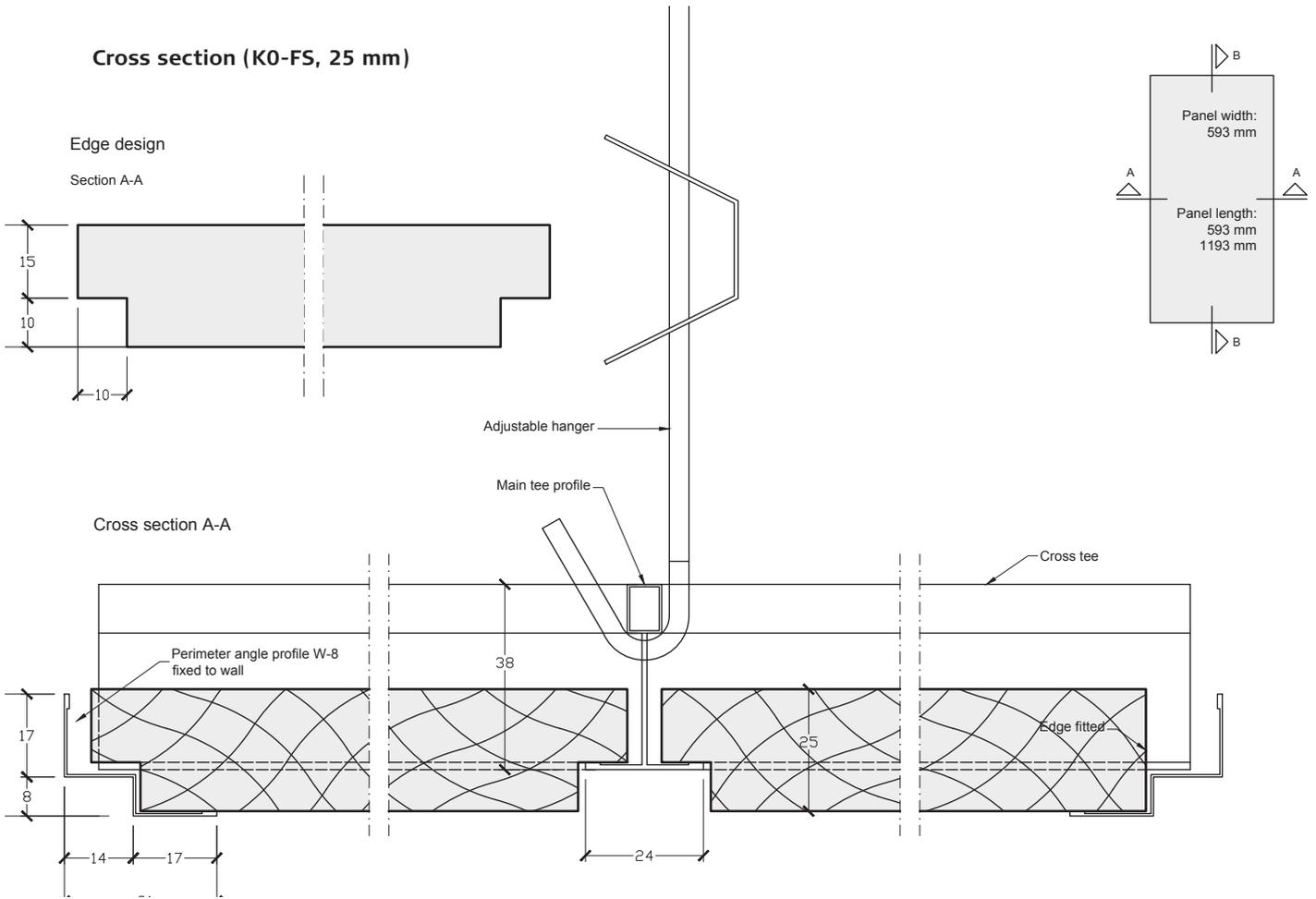
Cross section (K0-S, 25 mm)



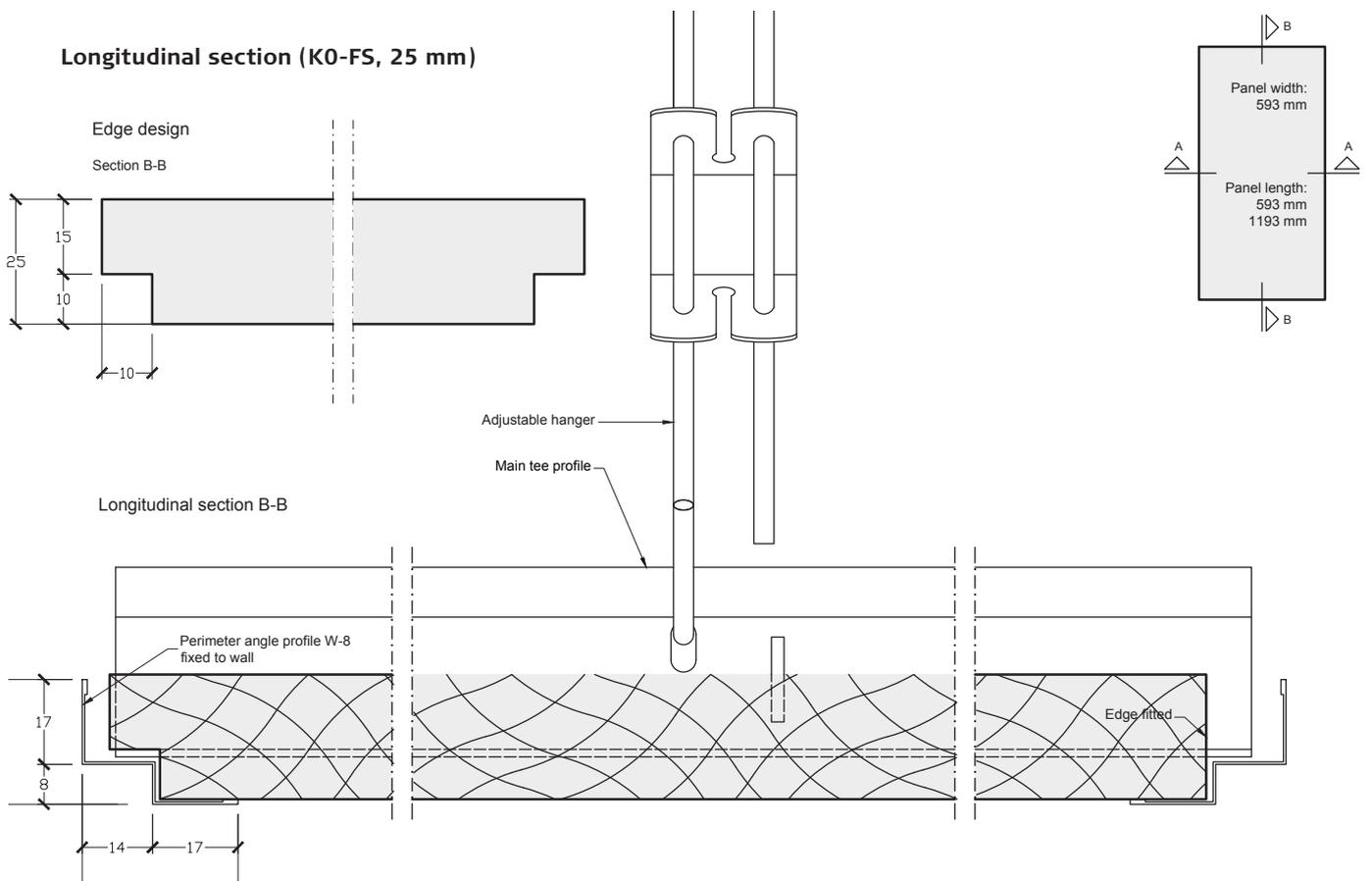
Longitudinal section (K0-S, 25 mm)



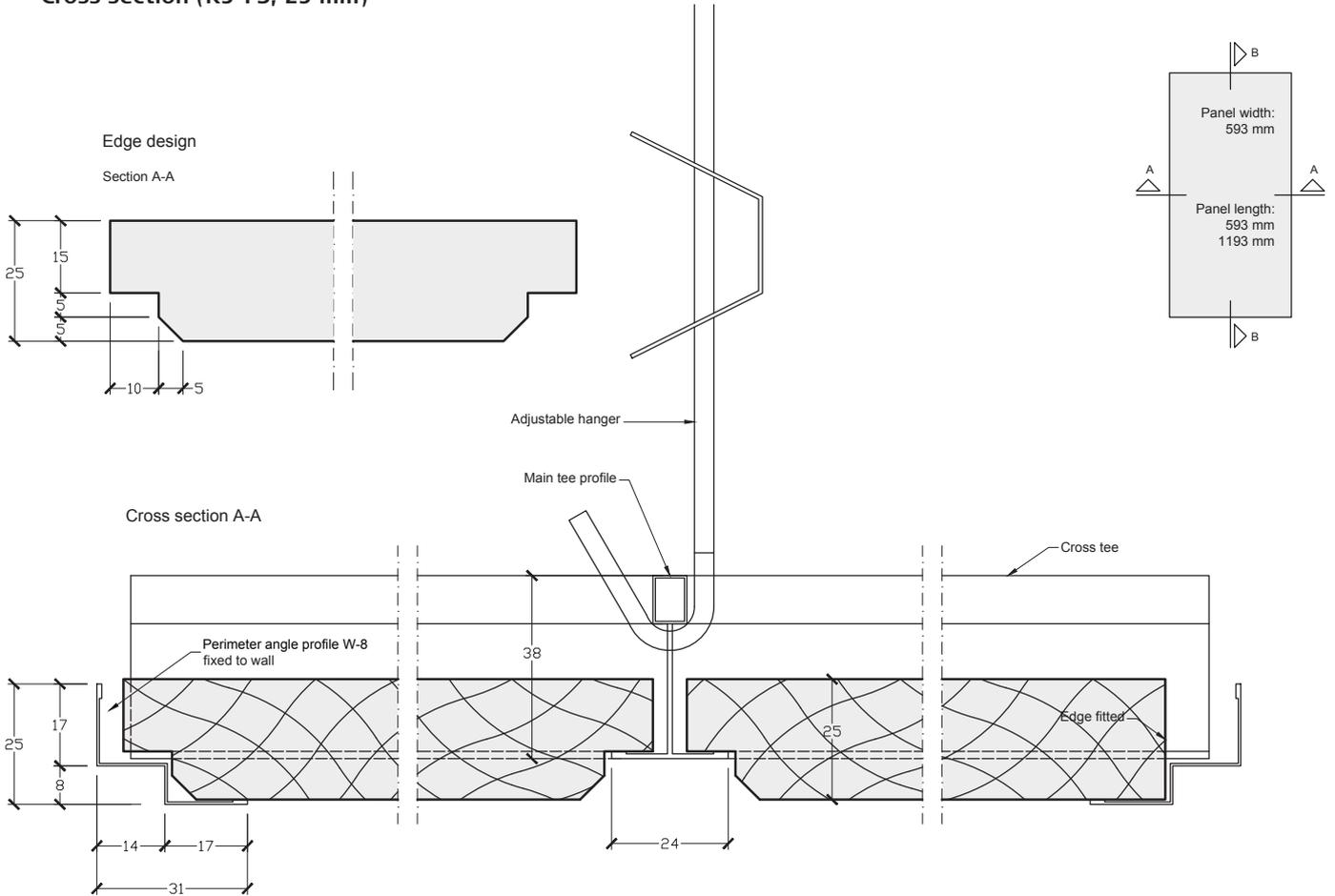
Cross section (K0-FS, 25 mm)



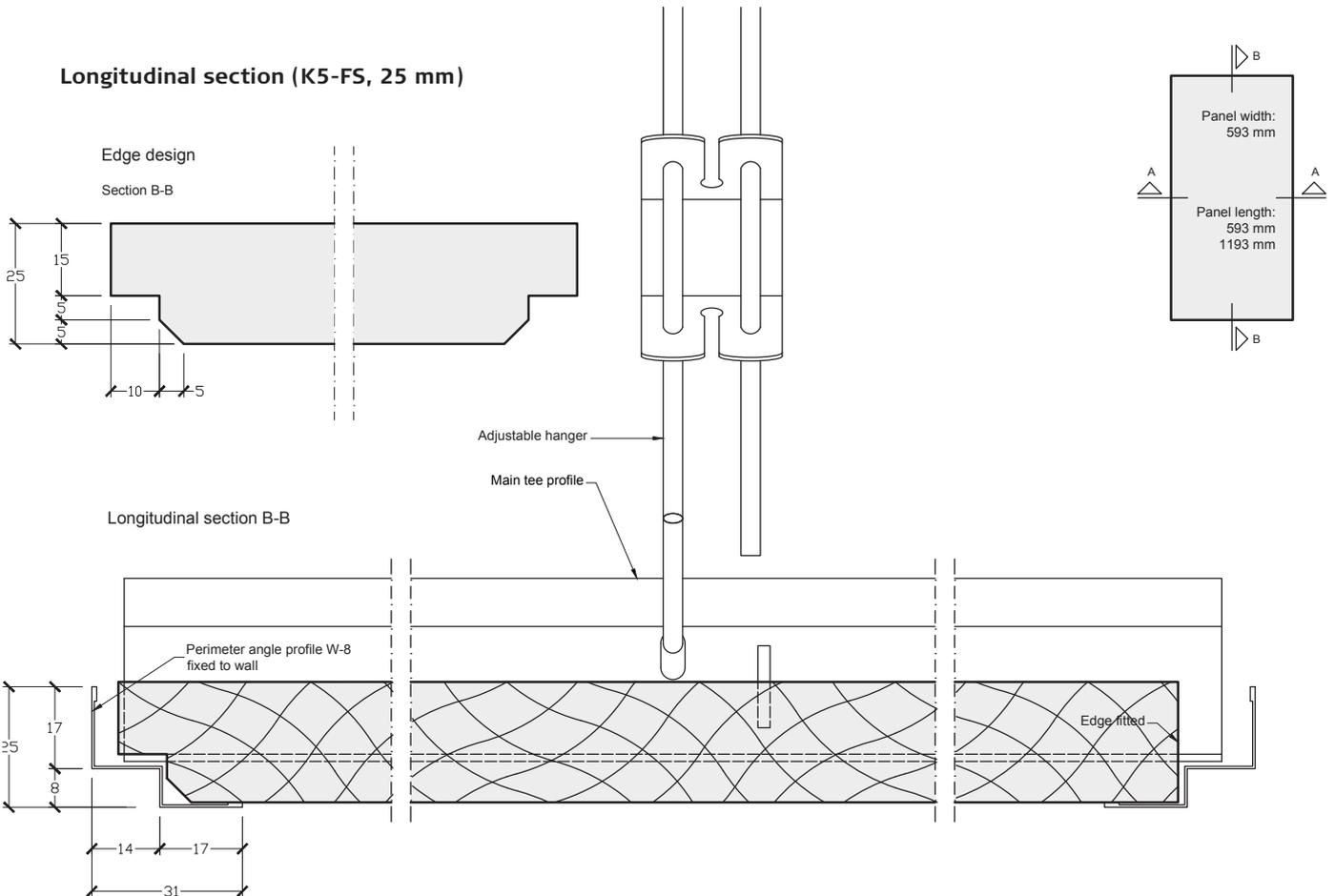
Longitudinal section (K0-FS, 25 mm)



Cross section (K5-FS, 25 mm)



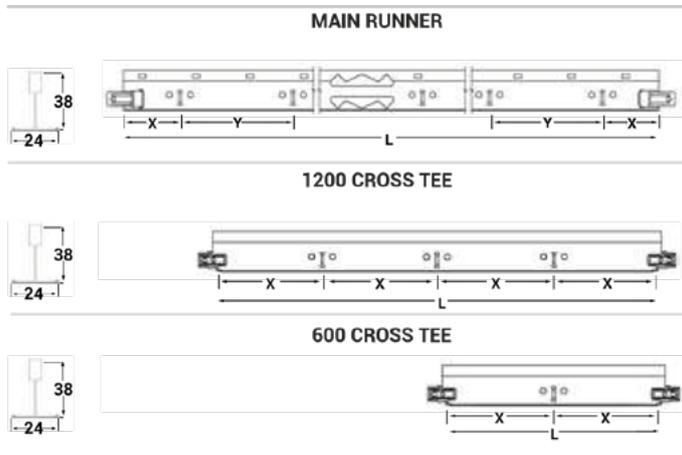
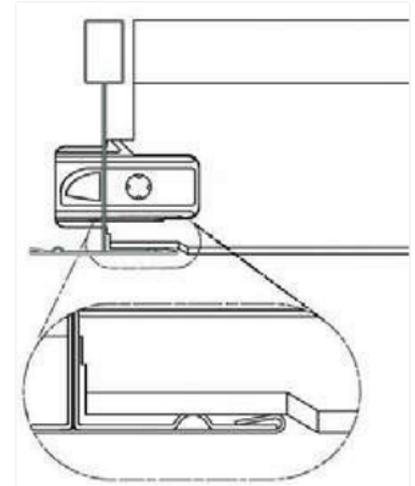
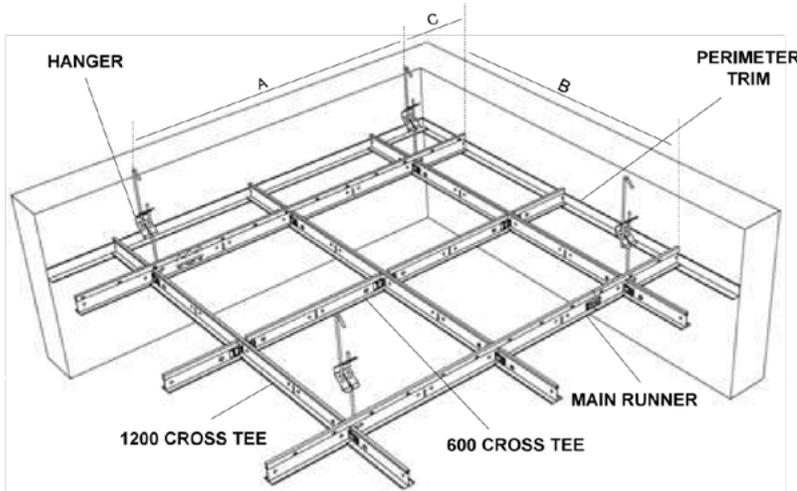
Longitudinal section (K5-FS, 25 mm)





Suspended, exposed T24 profile system

Exposed 24 mm ceiling grid. Click system with long joggled end detail



ACCESSORIES



Structure according to EN 13964.



Corrosion resistance according to Standards EN 13964 Class B.



Profiles with different lengths upon request.



The load per m² must be distributed uniformly (no points loads) over the ceiling area.

The deflection load has been calculated in accordance with the class 1 (L/500) of EN 13964, provided the grid layout is as presented in the sketch. Concentrated loads or additional weights such as lights, smoke detectors, air ducts, suspended signs, etc... are not allowed.

The maximum loads per m² shown in the table include ceiling tile weights and any additional weight, such as mineral wool or glass fiber, to improve the acoustic and fire resistance features.

T24 SYSTEM - MODULE 600x600 - 1200X600												
	DIMENSIONS (mm)			CODE	JOINT HOLE POS. (mm)		CARTON CONTENT			CARTONS PER PALLET	MATERIAL NEEDED PER m ² CEILING	
	L	H	B		X	Y	Pieces N.	m	Kg		Module 600x600	Module 1200x600
MAIN RUNNER	3700	38	24	M24383700B	50	100	20	74.00	20.5	24	0.83	0.83
CROSS TEE	1200	38		B24381200B	300	-	60	72.00	19.0	48	1.67	1.67
CROSS TEE	600	38		B2438600B	300	-	60	36.00	12.5	48	0.83	-

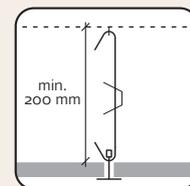
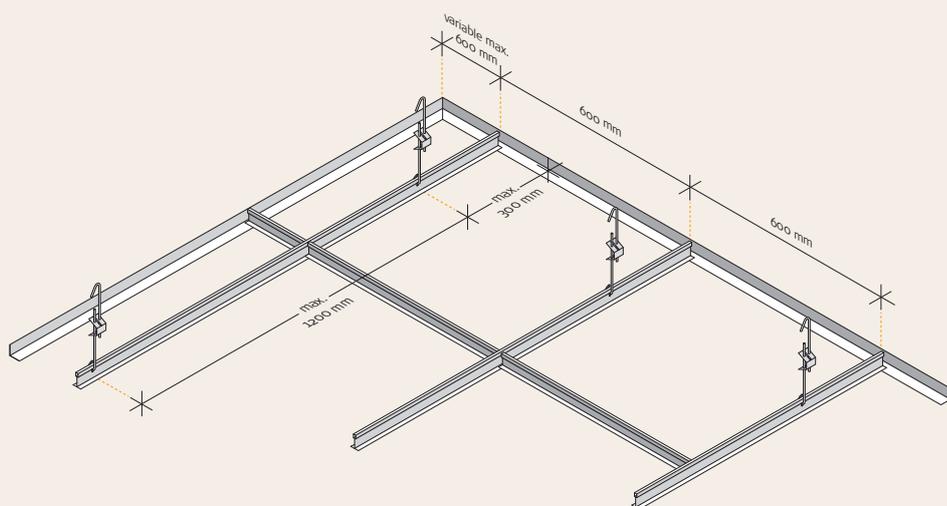
T24 SYSTEM - MODULE 625x625 - 1250x625												
	DIMENSIONS (mm)			CODE	JOINT HOLE POS. (mm)		CARTON CONTENT			CARTONS PER PALLET	MATERIAL NEEDED PER m ² CEILING	
	L	H	B		X	Y	Pieces N.	m	Kg		Module 625x625	Module 1250x625
MAIN RUNNER	3750	38	24	M24383750B	78.13	156.20	20	75.00	21.5	24	0.83	0.83
CROSS TEE	1250	38		B24381250B	312.50	-	60	75.00	20.0	48	1.67	1.67
CROSS TEE	625	38		B2438625B	312.50	-	60	37.50	13.5	48	0.83	-

Installation instructions

Suspended, exposed T35 profile system

These instructions apply to installation of exposed T35 profile system.
 Download installation instructions for all Troldekt® panel types from www.troldekt.com.

**INSTALLED ON SUSPENDED,
EXPOSED T35 PROFILE SYSTEM**



Installation height

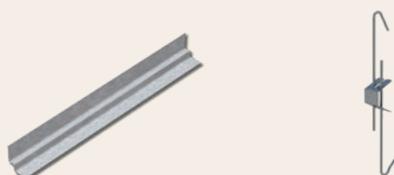
Depending on the choice of hanger, constructions with a very low installation height can be realised. This significantly limits the revision capability of the panels.

We recommend a minimum installation height of 200 mm with e.g. adjustable hanger.

COMPONENTS



Product name	Perimeter angle profile, V-30 - 30 x 30 mm	Cross tee, T-35 - 35 x 38 mm	Main profile, T-35 - 35 x 38 mm
Size/length (mm)	3000	600	3600
Quantity per pack	30 pcs.	40 pcs.	12 pcs.
Approx. qty. per m²	According to measurement	600x600mm: 2.8 pcs.	1.7 linear m



Product name	Shadow-edge angle profile, W-8 -17+14 / 8+17 mm	Adjustable hanger
Size/length (mm)	3000	175-275 / 200-360 / 320-600 / 540-1000 / 1035-2000
Quantity per pack	25 pcs.	100 pcs.
Approx. qty. per m²	According to measurement	1.4 pcs.

INSTALLATION - EXAMPLE

1. Fix the shadow-edge angle profiles (with the 8-mm tall side in vertical position) or the perimeter angle profiles securely to the wall with a maximum spacing of 300 mm. Additionally, fasten 50 mm from profile ends at joints, abutments and endings. (See fig. A and B). Hang the main profiles in parallel at 600 mm, with hanger points at max. 1200 mm. There should be max. 300 mm from the transverse wall to the first hanger. The main profiles and cross tees must lap on the perimeter angle or shadow-edge angle profiles (see fig. C and D).

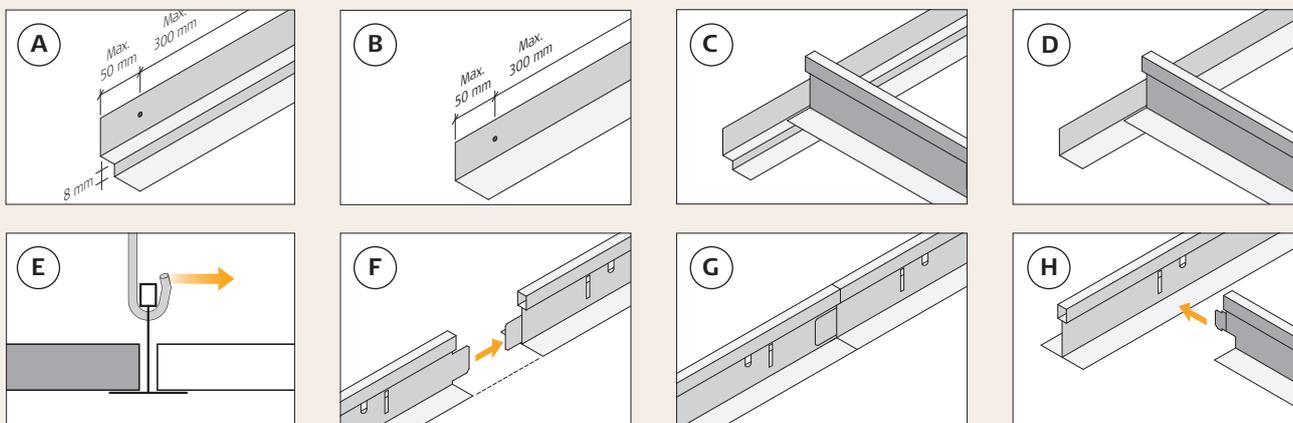
2. Fix the hangers securely to the structure above. In order to facilitate the placing of the Troldekt panels, the hooks on the adjustable quick-hangers must face the same way (see fig. E), and the hanger should be at least 200 mm distance to underlying installations, cable ducts etc., where the Troldekt panels must be removable. In case of increased loads from e.g. lighting armatures, the hanger spacing should be reduced.

Fix heavy armatures etc. to the structure above. Cut the main profiles at the wall and ensure that the slots are placed correctly in relation to the cross

profiles near the wall. Use a hacksaw or a profile cutter to cut the profiles. Connect the main profiles by pushing the ends together so that they lock. (See figs. F and G).

3. Place the cross tees between the main profiles by inserting the tongues of the cross tees into the slots of the main profiles, spaced at 150 mm. (See fig. H). When you have installed the profiles, check that all hangers are secure. Adjust if necessary. Now lay the Troldekt panels in the grid.

NB: It is not recommended to install the profiles/panels in broken bond.



General note

Layout, profile and hanger distances depend on the panel thickness and weight, possible additional loads (installation, fitting, backing and wind) and the maximum permissible load capacity of the hangers.

The design should take into account a maximum deflection of $L/500$ (deflection class 1).

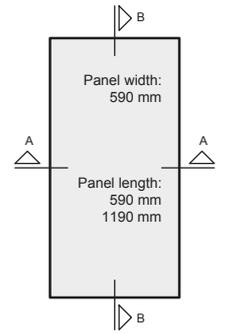
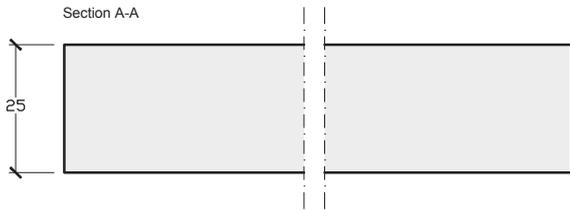
In the case of system tests, the specifications of the corresponding test report are relevant.

ACCESSORIES: visible T35 profiles

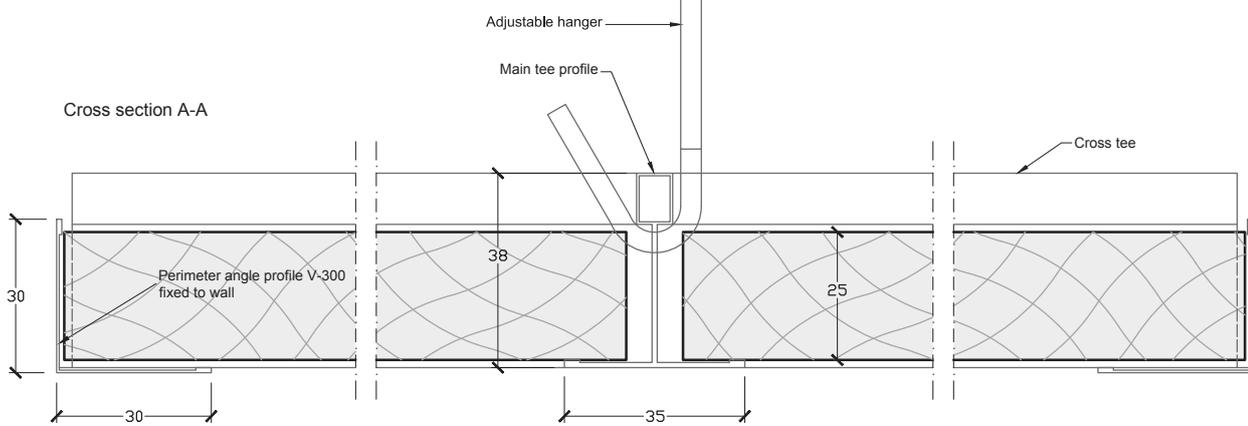
Cross section (K0-S, 25 mm)

Modular dimensions (mm) : 600 x 600 / 1200

Edge design

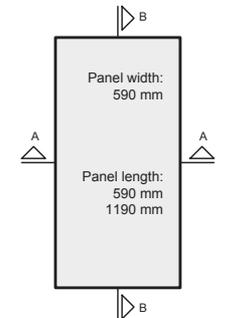
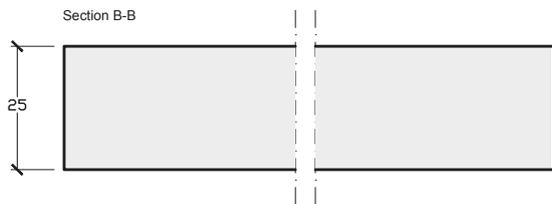


Cross section A-A

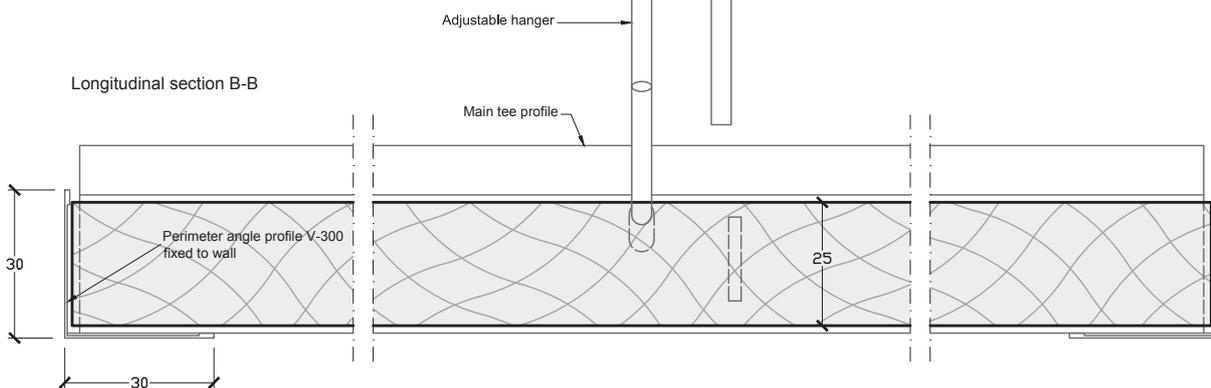


Longitudinal section (K0-S, 25 mm)

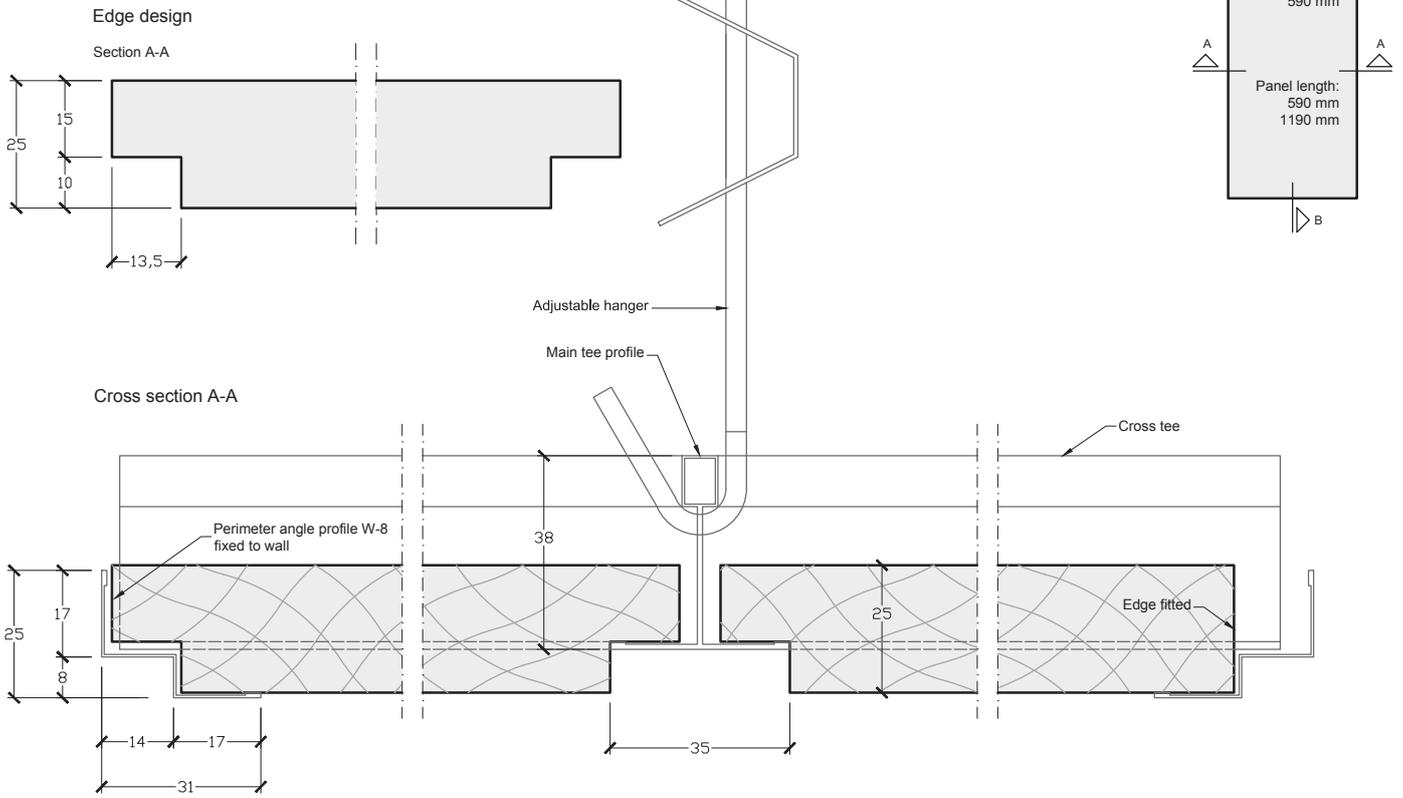
Edge design



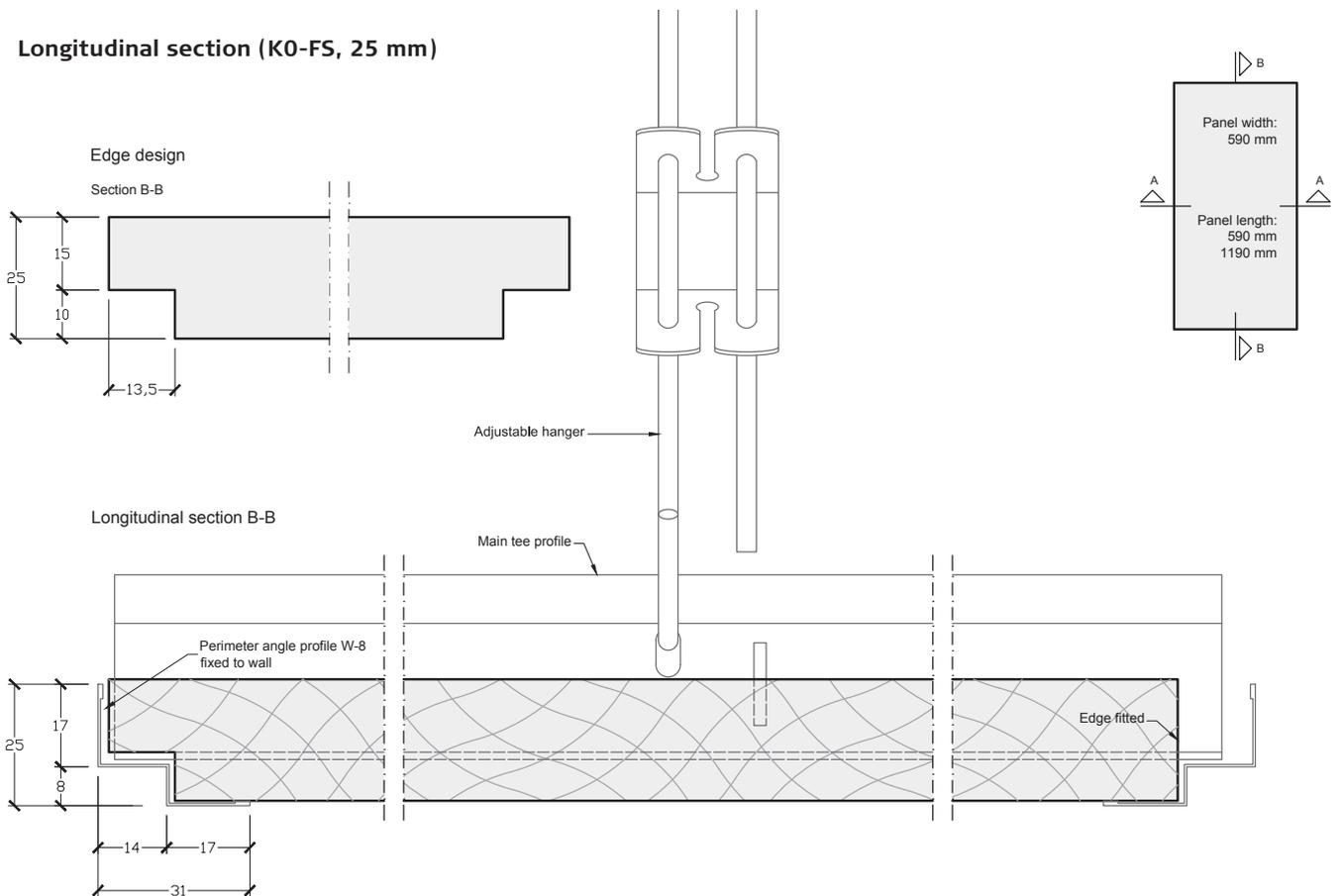
Longitudinal section B-B



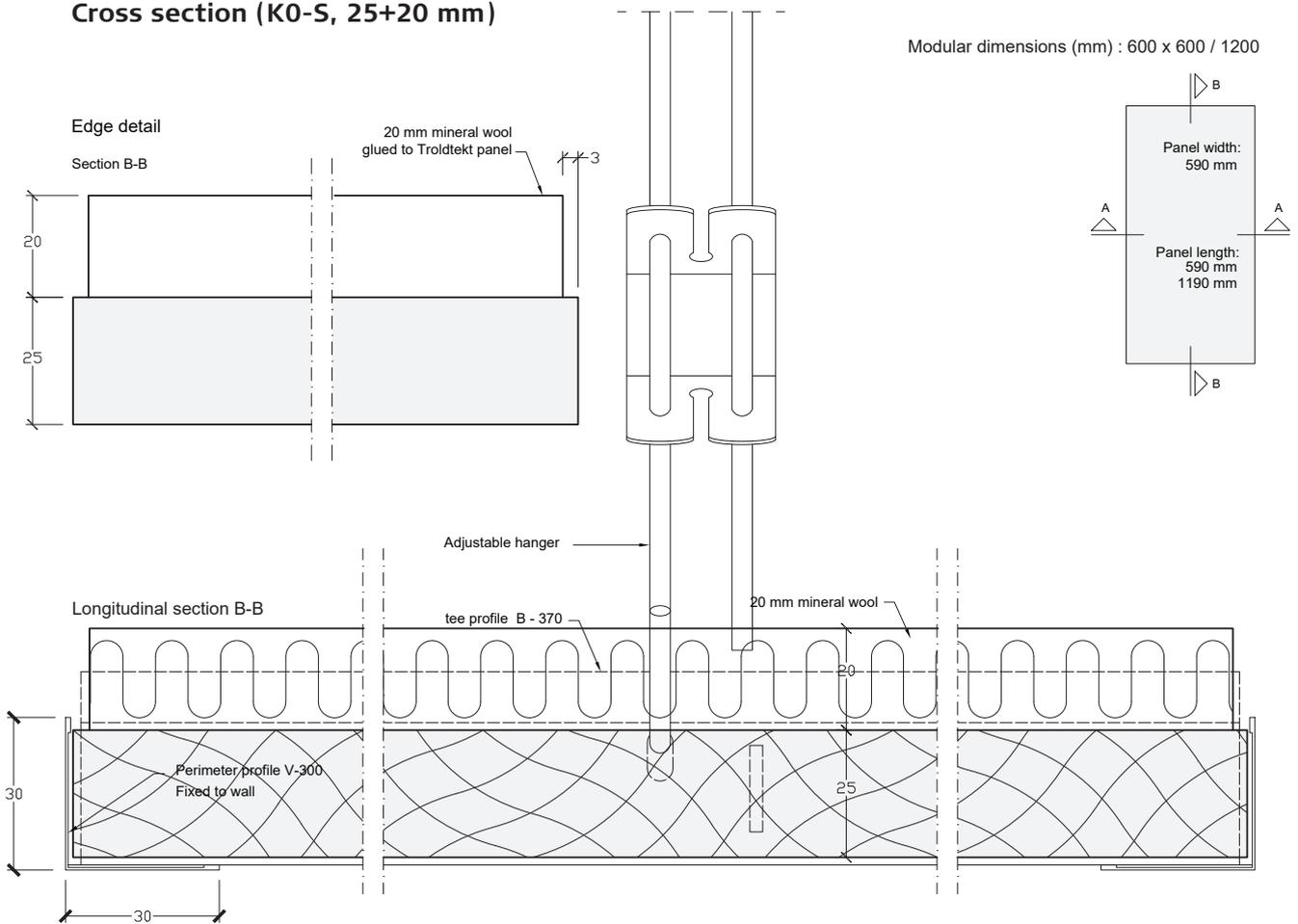
Cross section (K0-FS, 25 mm)



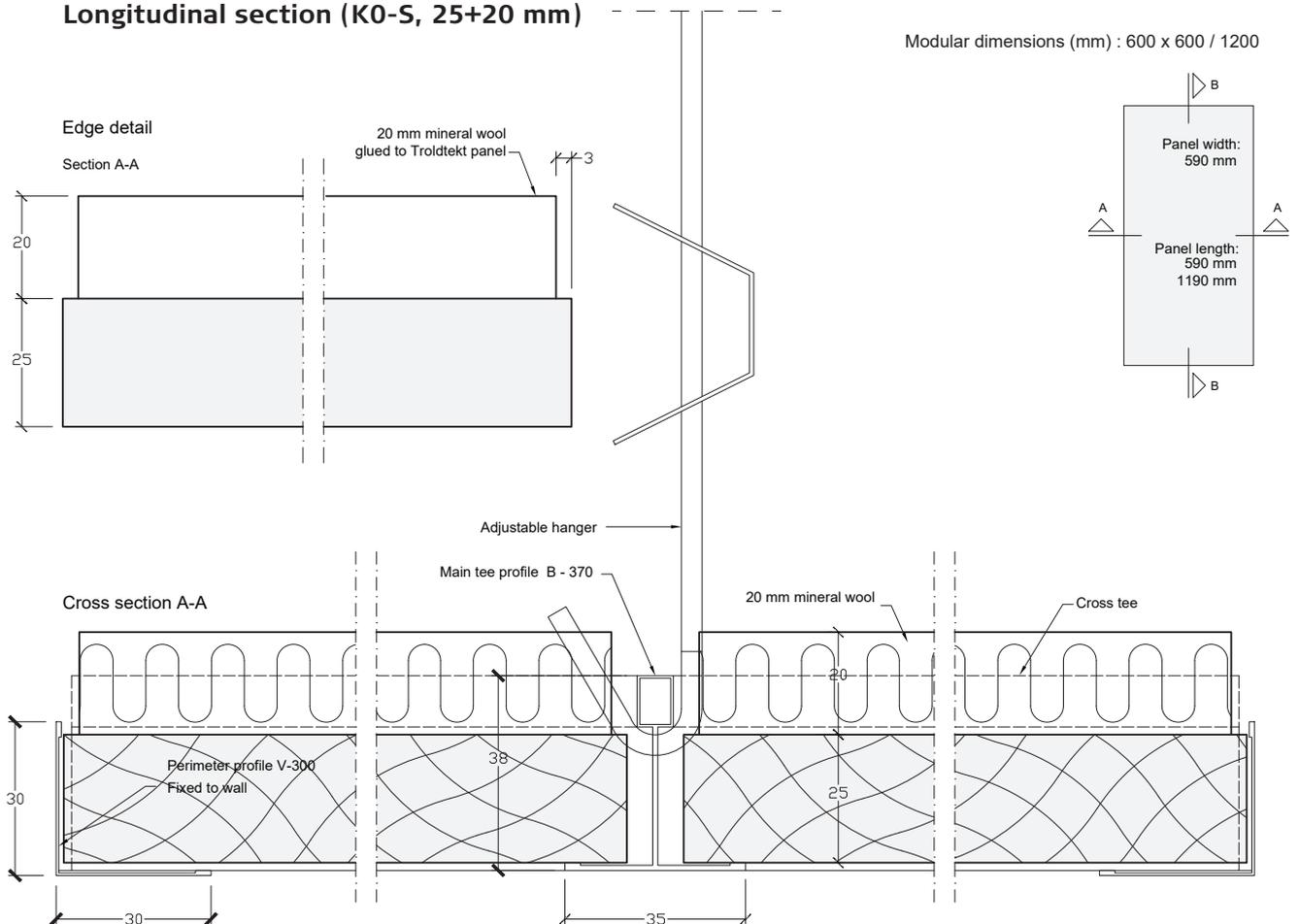
Longitudinal section (K0-FS, 25 mm)



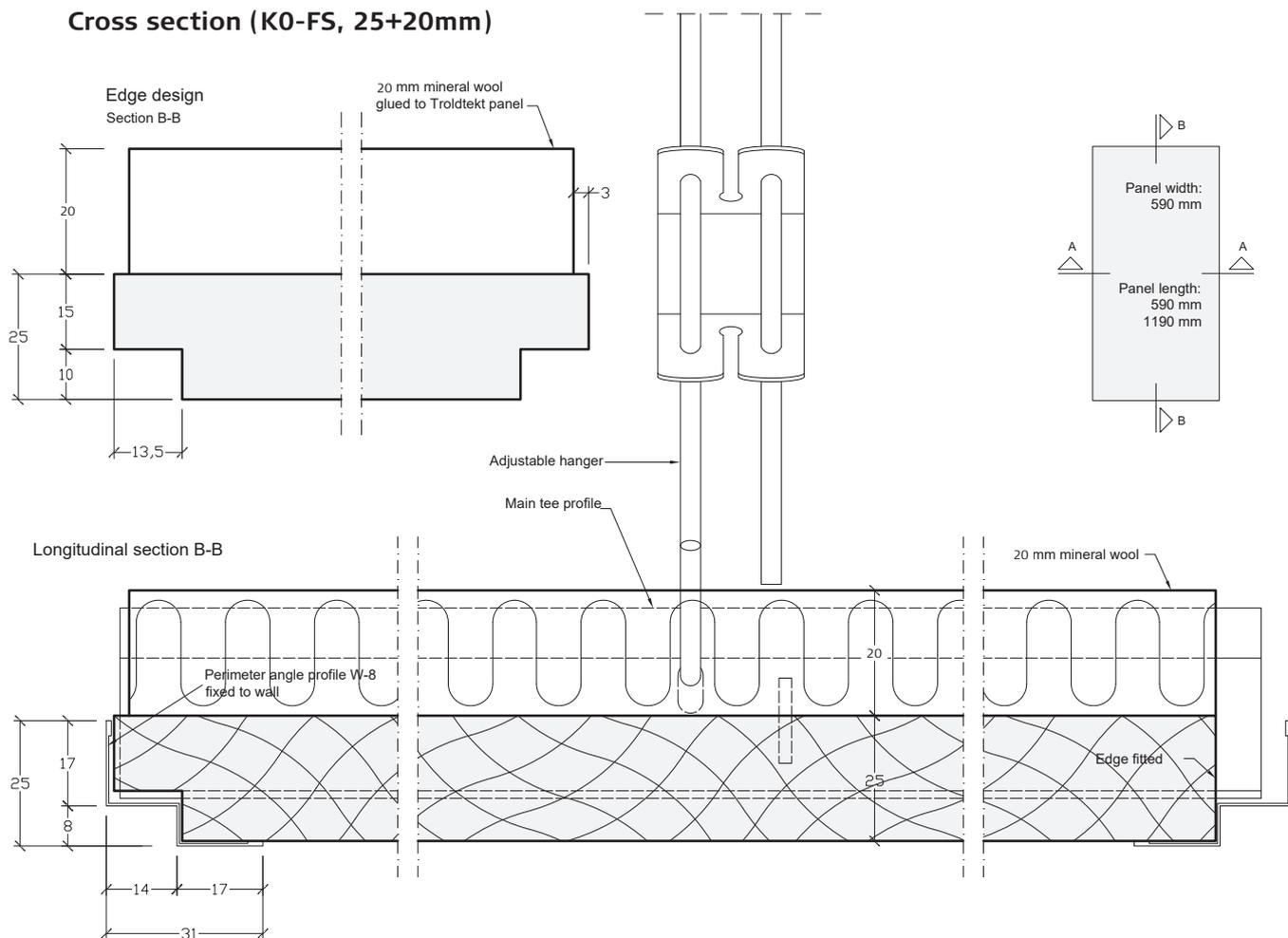
Cross section (K0-S, 25+20 mm)



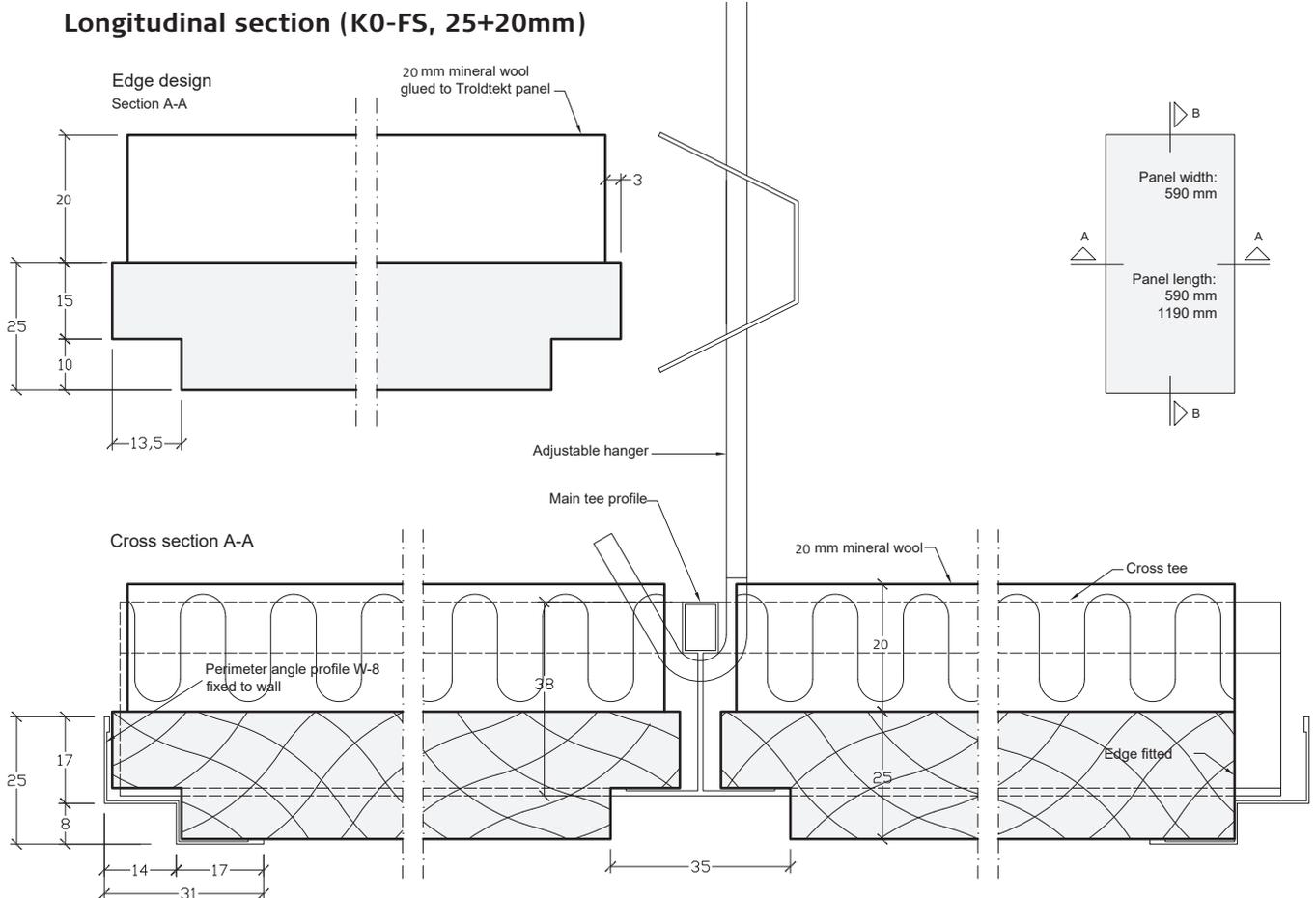
Longitudinal section (K0-S, 25+20 mm)



Cross section (K0-FS, 25+20mm)

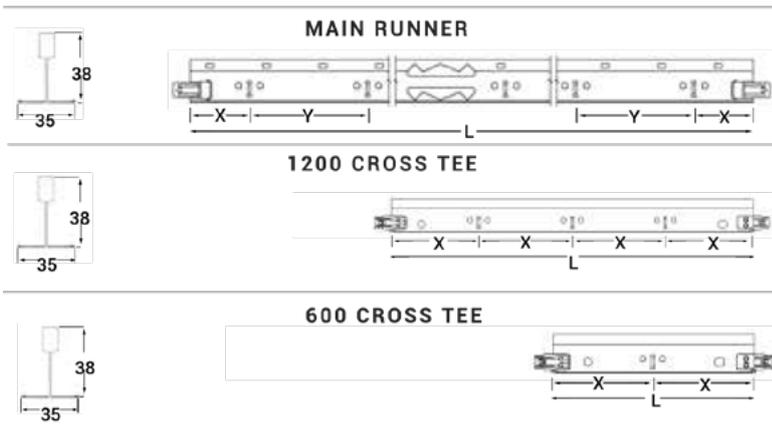
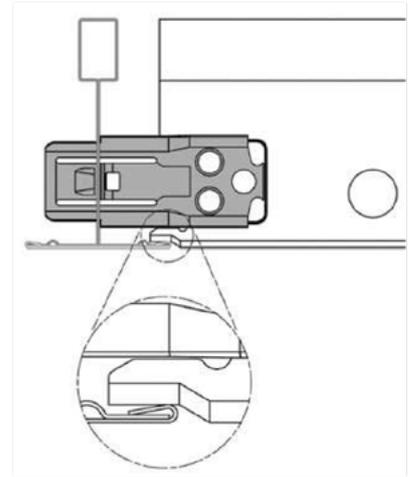
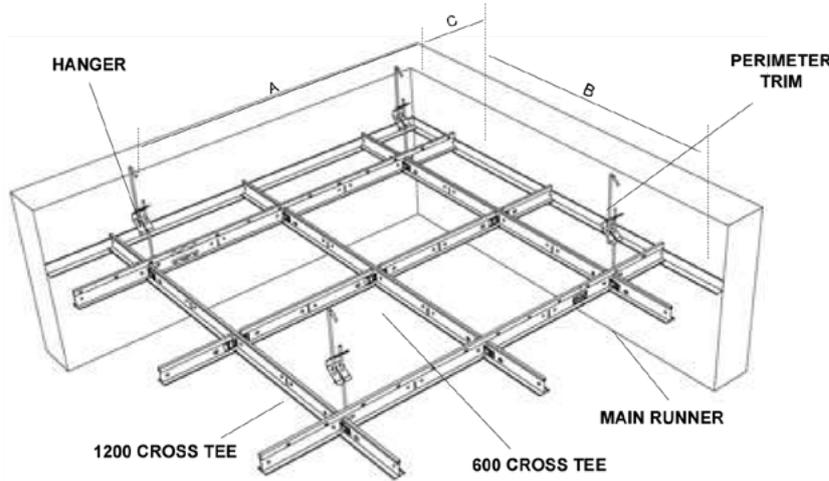


Longitudinal section (K0-FS, 25+20mm)



Suspended, exposed T35 profile system

Exposed 35 mm ceiling grid. Click system with joggled end detail



ACCESSORIES



CE Structure according to EN 13964.



Reaction to fire certification - in progress.



Corrosion resistance according to Standards EN 13964 Class B.



Profiles with different lengths upon request.



The load per m² must be distributed uniformly (no points loads) over the ceiling area.
The deflection load has been calculated in accordance with the class 1 (L/500) of EN 13964, provided the grid layout is as presented in the sketch. Concentrated loads or additional weights such as lights, smoke detectors, air ducts, suspended signs, etc... are not allowed.
The maximum loads per m² shown in the table include ceiling tile weights and any additional weight, such as mineral wool or glass fiber, to improve the acoustic and fire resistance features.

T35 SYSTEM - MODULE 600x600 – 1200x600

	DIMENSIONS (mm)			CODE	JOINT HOLE POS. (mm)		CARTON CONTENT			CARTONS PER PALLET	MATERIAL NEEDED PER m ² CEILING	
	L	H	B		X	Y	Pieces N.	m	Kg		Module 600x600	Module 1200x600
MAIN RUNNER	3700	38	35	M35383700B	50	100	12	44.40	17.5	24	0.83	0.83
CROSS TEE	1200			C35381200B	300	-	40	48.00	16.8	48	1.67	1.67
CROSS TEE	600			C3538600B	300	-	40	24.00	8.4	48	0.83	-
¹⁵⁰⁰ CROSS TEE	1500			C35381500B	750	-	40	48.00	21.0	48	-	-
¹⁰⁰⁰ CROSS TEE	1000			C35381000B	500	-	40	40.00	14.0	48	-	-

T35 SYSTEM - MODULE 625x625 – 1250x625

	DIMENSIONS (mm)			CODE	JOINT HOLE POS. (mm)		CARTON CONTENT			CARTONS PER PALLET	MATERIAL NEEDED PER m ² CEILING	
	L	H	B		X	Y	Pieces N.	m	Kg		Module 625x625	Module 1250x625
MAIN RUNNER	3750	38	35	M35383750B	78.13	156.20	12	45.00	17.8	24	0.83	0.83
CROSS TEE	1250			C35381250B	312.50	-	40	50.00	17.5	48	1.67	1.67
CROSS TEE	625			C3538625B	312.50	-	40	25.00	8.8	48	0.83	-

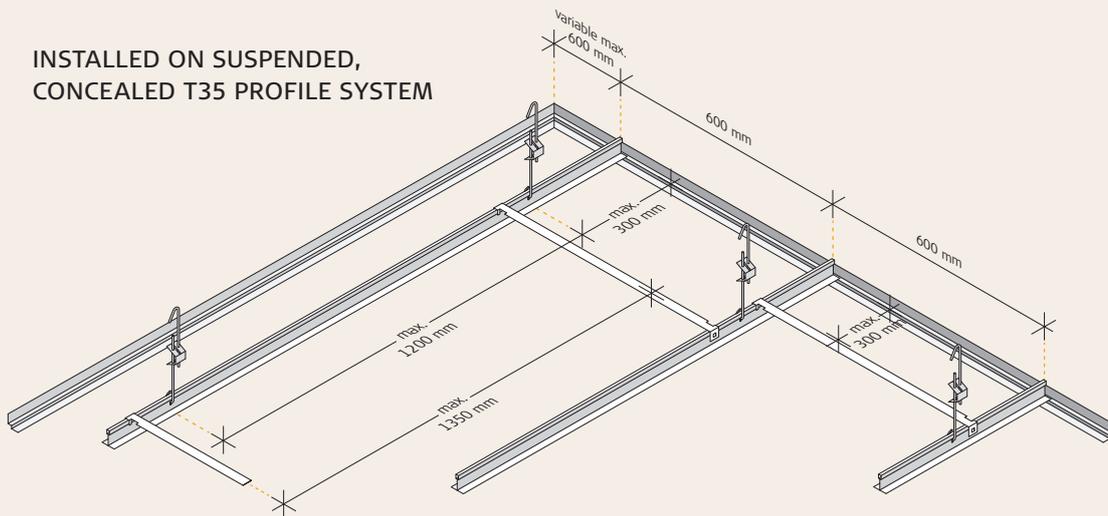
Installation instructions

Suspended, concealed T35 profile system

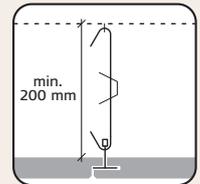
These instructions apply to installation of concealed T35 profile system.

Download installation instructions for all Trolldtekt® panel types from www.trolldtekt.com.

INSTALLED ON SUSPENDED, CONCEALED T35 PROFILE SYSTEM



Min. 1200 mm (for maximum span and additional loads, see the technical data sheet of the profile).



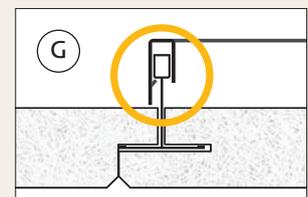
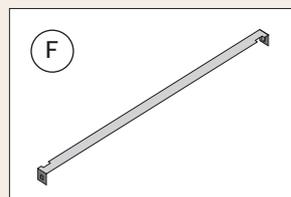
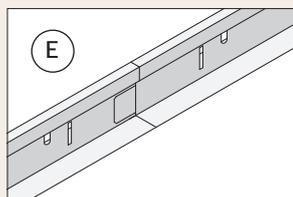
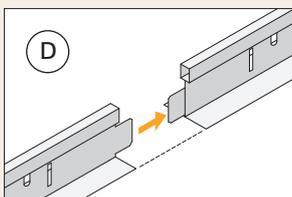
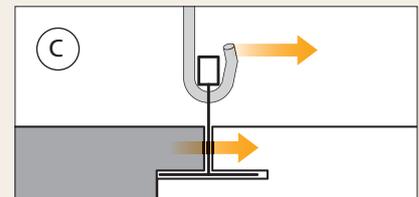
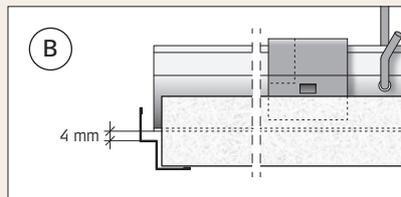
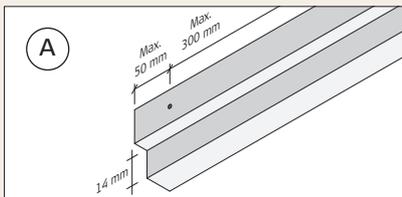
Installation height

Depending on the choice of hanger, constructions with a very low installation height can be achieved.

For smooth installation and easy removal of the panels, we recommend a minimum installation height of 200 mm.

INSTALLATION - EXAMPLE

- 1: Fasten the shadow-edge angle profiles securely to the wall at max. 300 mm intervals, and so that the 14 mm height is vertical. Additionally, secure the profiles 50 mm from profile ends at joints, abutments and endings. (See Fig. A). Hang the main profiles in parallel at 600 mm intervals, with quick-hanger points at max. 1200 mm intervals. The distance from the transverse wall to the first quick-hanger should be max. 300 mm. Note that the main profile should be installed at a distance of 4 mm above the upper horizontal edge of the shadow-edge angle profile – as shown in Fig. B.
- 2: Fix the hangers securely to the structure above. In order to facilitate the placing of the Trolldtekt panels, the hooks on the adjustable quick-hangers as well as the panels must face as shown in fig. C. There should also be at least 200 mm distance to underlying installations, cable ducts etc., where the Trolldtekt panels must be removable. In case of increased loads from e.g. lighting armatures, the hanger spacing should be reduced. Fix heavy armatures etc. to the structure above. The easiest way to shorten the various profiles is with a hacksaw or profile cutter. Connect the main profiles by pushing the ends together so that they lock. (See figs D and E).
- 3: Once you have installed the profiles, check that all the quick-hangers are tight. Adjust if necessary. Then position the Trolldtekt acoustic panels row by row in the direction of the profiles. As you place the panels, fit spacing profiles (see fig. F) for every max. 1350 mm. The first spacing profile should be fitted max. 300 mm from the wall. Fit the spacing profiles on the suspended main profiles by clicking them onto the profile so they lock into place. (See fig. G).



INSTALLATION PRINCIPLES

In a suspended, concealed T35 profile system, the panels can be installed in both stack bond (figs 1 and 2) or in stretcher bond (fig. 3). In both cases, about half of the panels will be removable. In order for the spacing profiles to stabilise the ceiling in the best possible way during installation, the panels should be installed row by row following the direction of

the profiles. It is a good idea to first secure the end of the spacing profile which is closest to you (see arrows A in the drawings below). The other end of the spacing profile can then be clicked into place on the main profile, for example by lightly banging it with a rubber hammer (see the arrows B in the drawings below). Please note that the ceiling is not

fully stabilised until all the spacing profiles are installed. To stabilise the profile system during installation, you can temporarily use spacing profiles to hold the profiles in place. (See marking C in drawings below.) Contact Trolldtekt for technical advice when installing panels in module 600 X 600 mm.

FIG.1 STACK BOND

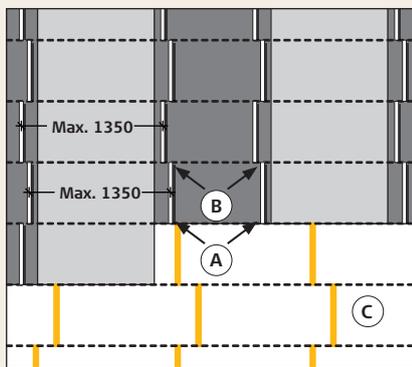


FIG. 2 STACK BOND, STAGGERED

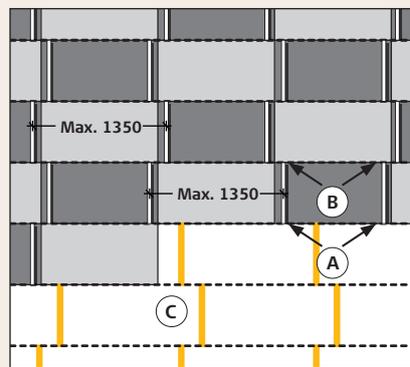
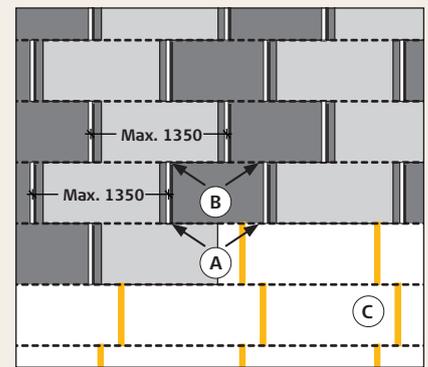
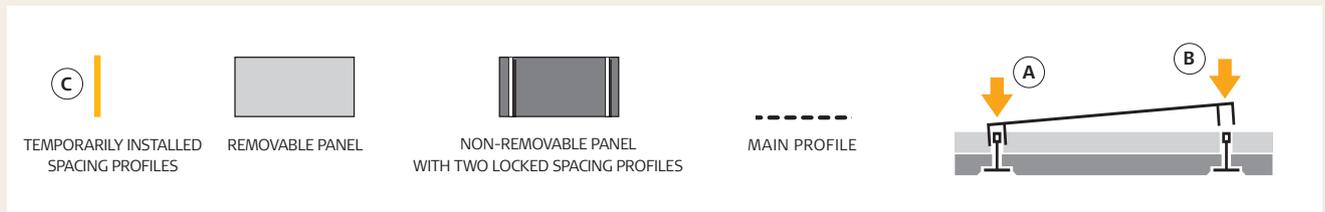


FIG. 3 STRETCHER BOND



Note: Section of ceiling layout – partial view of the full ceiling installation.

SYMBOLS



CROSS-SECTION (PRINCIPLE)

COMPONENTS



Product name	Shadow-edge angle profile, W-8 – 17 + 14 / 8 + 17 mm	Main profile, T35 – 35x38 mm	Adjustable hanger	Spacing profile with lock*
Size/length (mm)	3000	3700	175-275 / 200-360 / 320-600 / 540-1000 / 1035-2000	600
Quantity per pack	25 pcs.	12 pcs.	100 pcs.	50 pcs.
Approx. qty. per m ²	According to measurement	1.7 pcs.	1.4 pcs.	1.4 pcs.

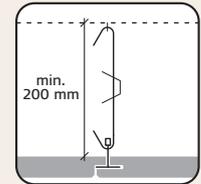
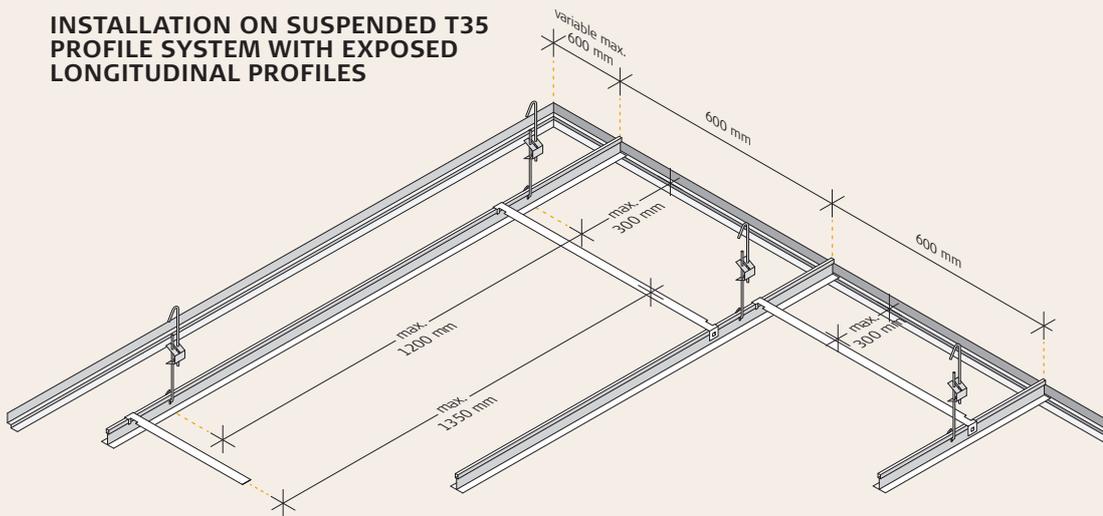
* Intended for Trolldtekt acoustic panels, Trolldtekt Plus 35+20 mm as well as Trolldtekt ventilation 35+25 mm

Installation instructions

Suspended T35 profile system with exposed longitudinal profiles

These instructions apply to the installation of T35 profile system with exposed longitudinal profiles. Always check that you have the latest version of our installation instructions. Installation instructions for all Troldekt® panels and installation systems can be downloaded at www.troldekt.com.

INSTALLATION ON SUSPENDED T35 PROFILE SYSTEM WITH EXPOSED LONGITUDINAL PROFILES

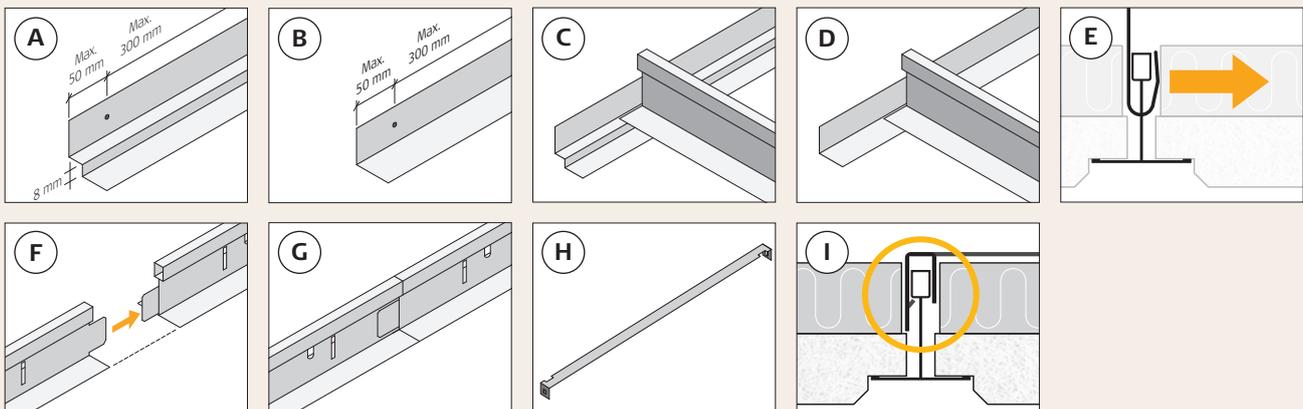


Depending on the choice of hanger, constructions with a very low installation height can be achieved.

For smooth installation and easy removal of the panels, we recommend a minimum installation height of 200 mm.

INSTALLATION - EXAMPLE

- 1: Fix the shadow-edge angle profiles (with the 8-mm tall side in vertical position) or the perimeter angle profiles securely to the wall with a maximum spacing of 300 mm. Additionally, fasten 50 mm from profile ends at joints, abutments and endings. (See figs. A and B). Hang the main profiles in parallel at 600 mm, with hanger points at max. 1200 mm. There should be max. 300 mm from the transverse wall to the first hanger. The main profiles and cross tees must lap on the perimeter angle or shadow-edge angle profiles (see figs. C and D).
- 2: Fix the quick-hangers securely to the structure above. In order to facilitate the placing of the Troldekt acoustic panels, the hooks on the adjustable quick-hangers must face the same way on the whole ceiling, as shown in fig. E, and the quick-hangers should be min. 200 mm. There should also be a distance of min. 200 mm to underlying installations, cable ducts etc., where the Troldekt acoustic panels must be removable. In the case of increased loads from e.g. lightweight lighting armatures, the quick-hanger spacing should be reduced. Fix heavy armatures etc. to the structure above. Use a hacksaw or a profile cutter to shorten the profiles. Connect the main profiles by pushing the ends together so that they lock. (See figs F and G).
- 3: Once you have installed the profiles, check that all quick-hangers are tight. Adjust if necessary. Then position the Troldekt acoustic panels row by row in the direction of the profiles. As you place the panels, fit spacing profiles (see fig. H) for every max. 1350 mm. The first spacing profile should be fitted max. 300 mm from the wall. Fit the spacing profiles on the suspended main profiles by clicking them onto the profile so they lock into place. (See fig. I.)



INSTALLATION PRINCIPLES

In a suspended T35 profile system with exposed longitudinal profiles, the panels can be installed in both stack bond (figs 1 and 2) or in stretcher bond (fig. 3). In both cases, about half of the panels will be removable. In order for the spacing profiles to stabilise the ceiling in the best possible way during installation, the panels should be installed

row by row following the direction of the profiles. It is a good idea to first secure the end of the spacing profile which is closest to you (see arrows A in the drawings below). The other end of the spacing profile can then be clicked into place on the main profile, for example by lightly banging it with a rubber hammer (see the arrows B in the drawings

below). Please note that the ceiling is not fully stabilised until all the spacing profiles are installed. To stabilise the profile system during installation, you can temporarily use spacing profiles to hold the profiles in place. (See marking C in drawings below.)

FIG.1 STACK BOND

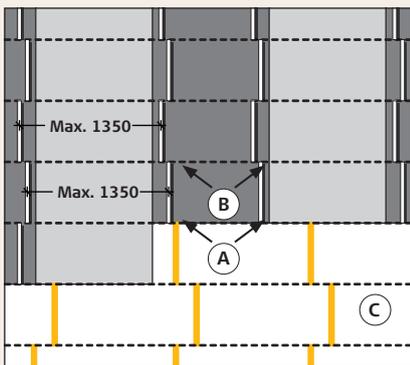


FIG. 2 STACK BOND, STAGGERED

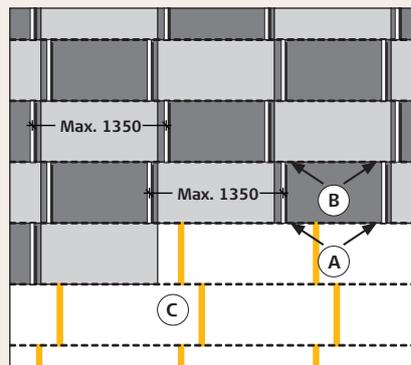
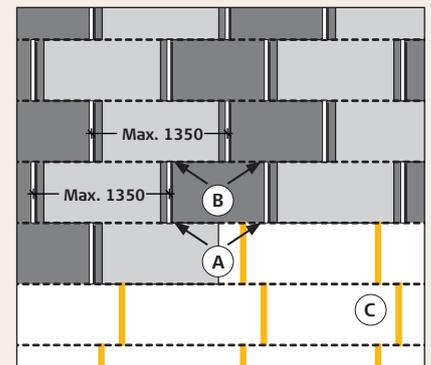


FIG. 3 STRETCHER BOND



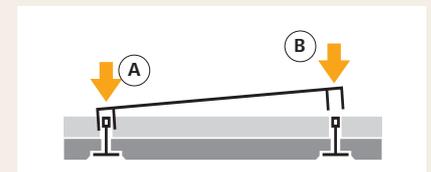
SYMBOLS






TEMPORARILY INSTALLED SPACING PROFILES REMOVABLE PANEL NON-REMOVABLE PANEL WITH TWO LOCKED SPACING PROFILES MAIN PROFILE

CROSS-SECTION (PRINCIPLE)



COMPONENTS



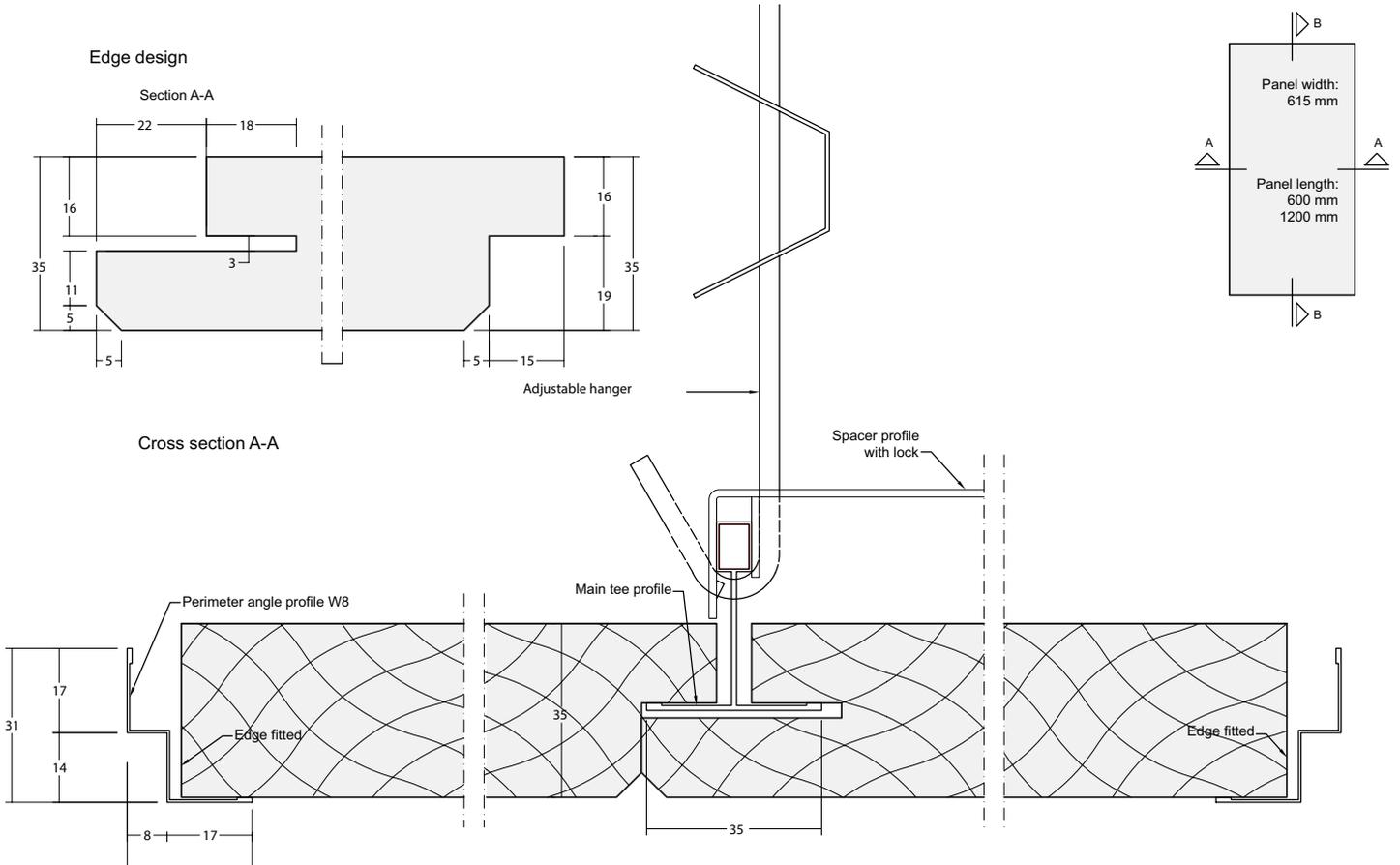
Product name	Perimeter angle profile, V-30 - 30 x 30 mm	Shadow-edge angle profile, W-8 -17+14 / 8+17 mm	Main profile, T35 - 35 x 38 mm
Size/length (mm)	3000	3000	3700
Quantity per pack	30 pcs.	25 pcs.	12 pcs.
Approx. qty. per m ²	According to measurement	According to measurement	1.7 pcs.



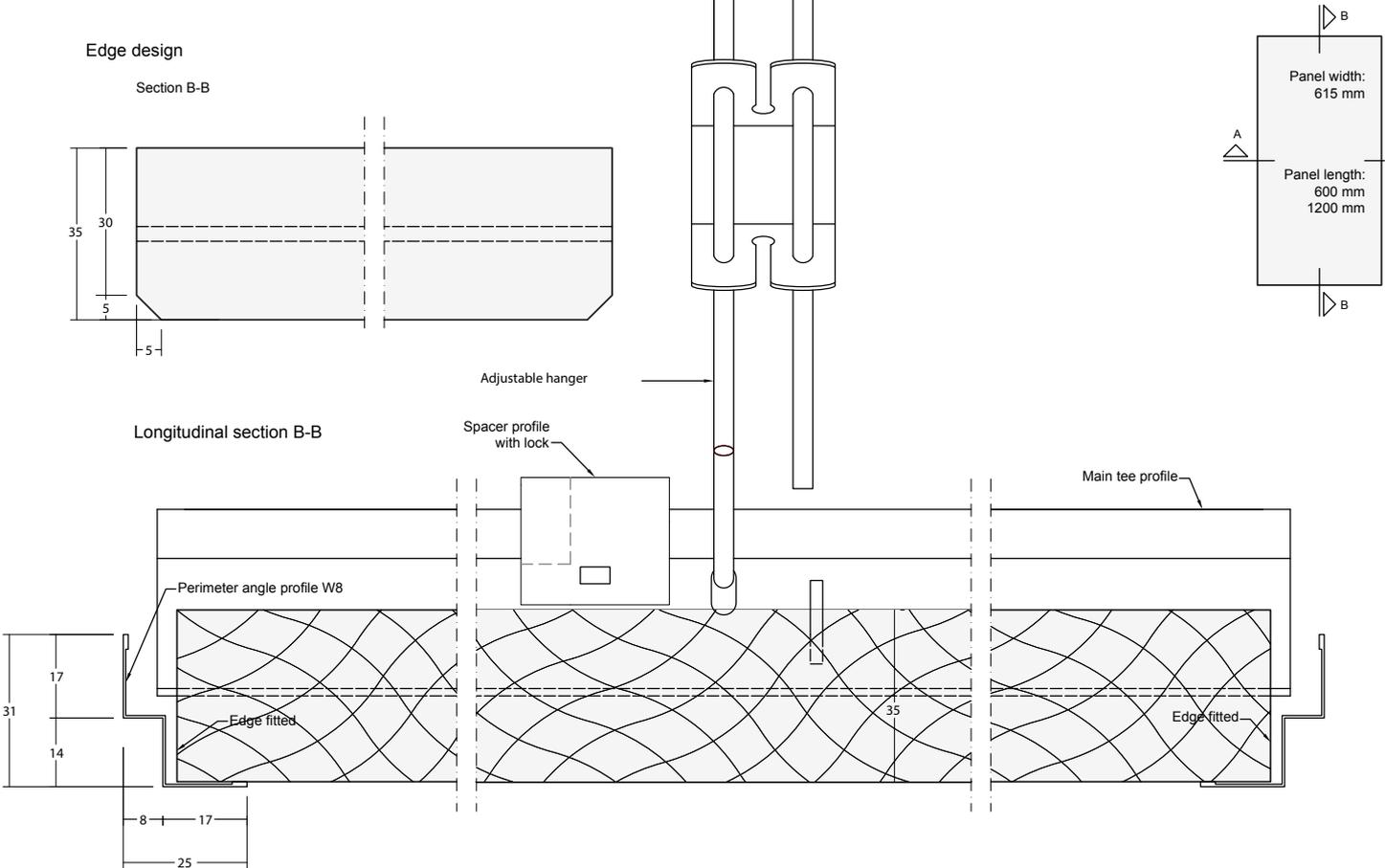
Product name	Adjustable hanger	Spacing profile with lock*
Size/length (mm)	175-275 / 200-360 / 320-600 / 540-1000 / 1035-2000	600
Quantity per pack	100 pcs.	50 pcs.
Approx. qty. per m ²	1.4 pcs.	1.4 pcs.

* Not compatible with Trolldtekt® Plus 40 mm acoustic panels and Trolldtekt® ventilation with edge K0-S.

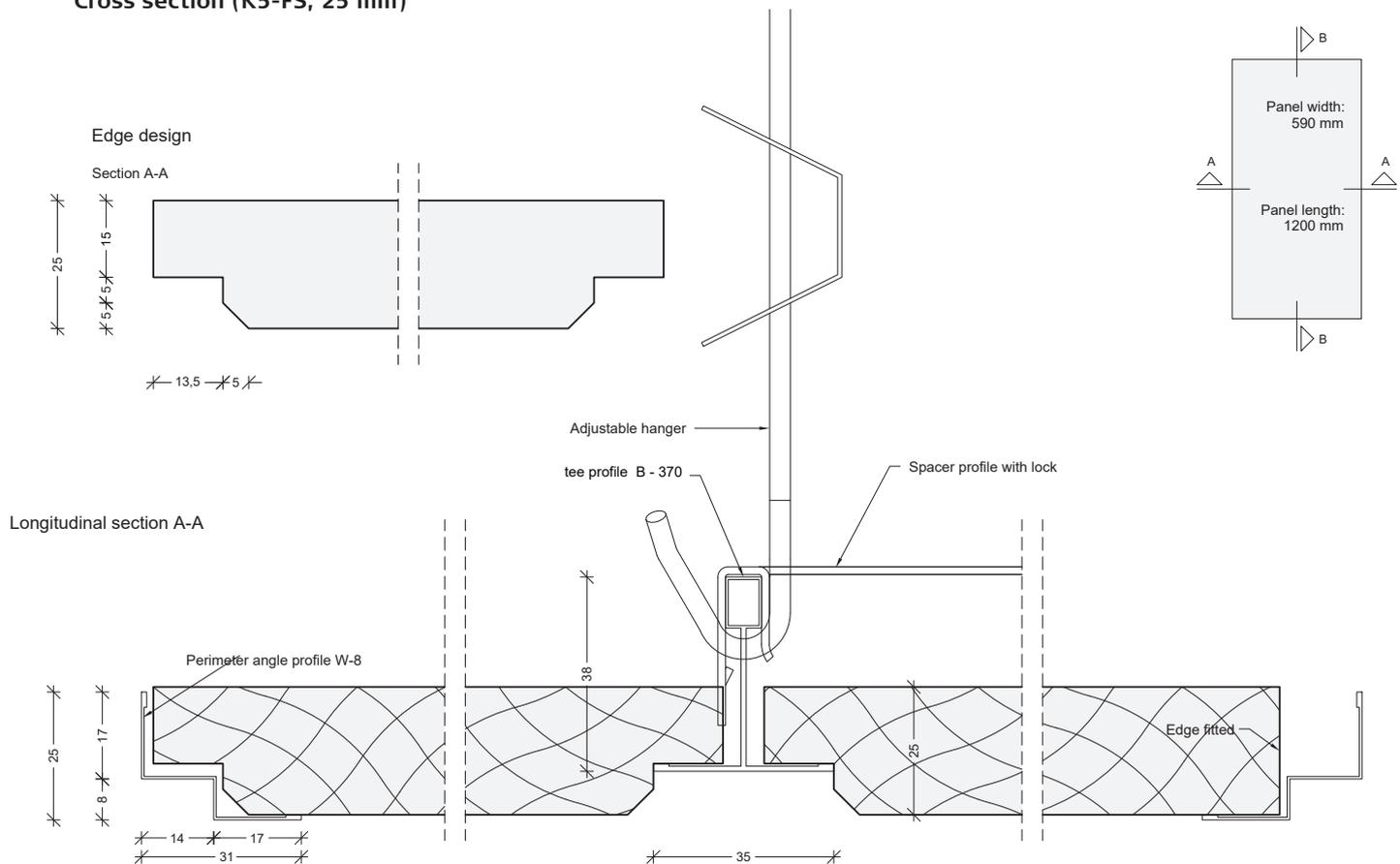
Cross section (K5-FN, 35 mm)



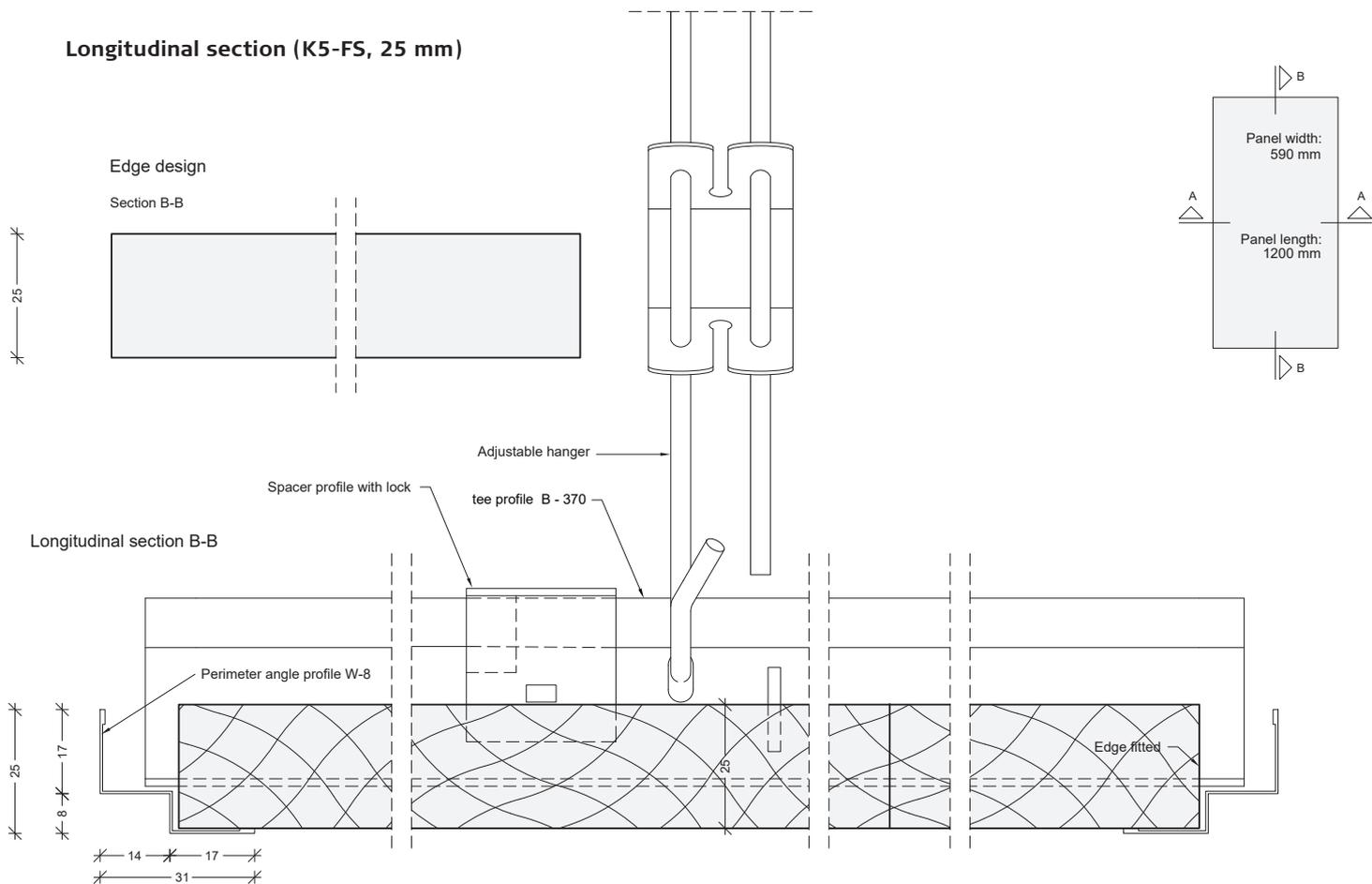
Longitudinal section (K5-FN, 35 mm)



Cross section (K5-FS, 25 mm)



Longitudinal section (K5-FS, 25 mm)

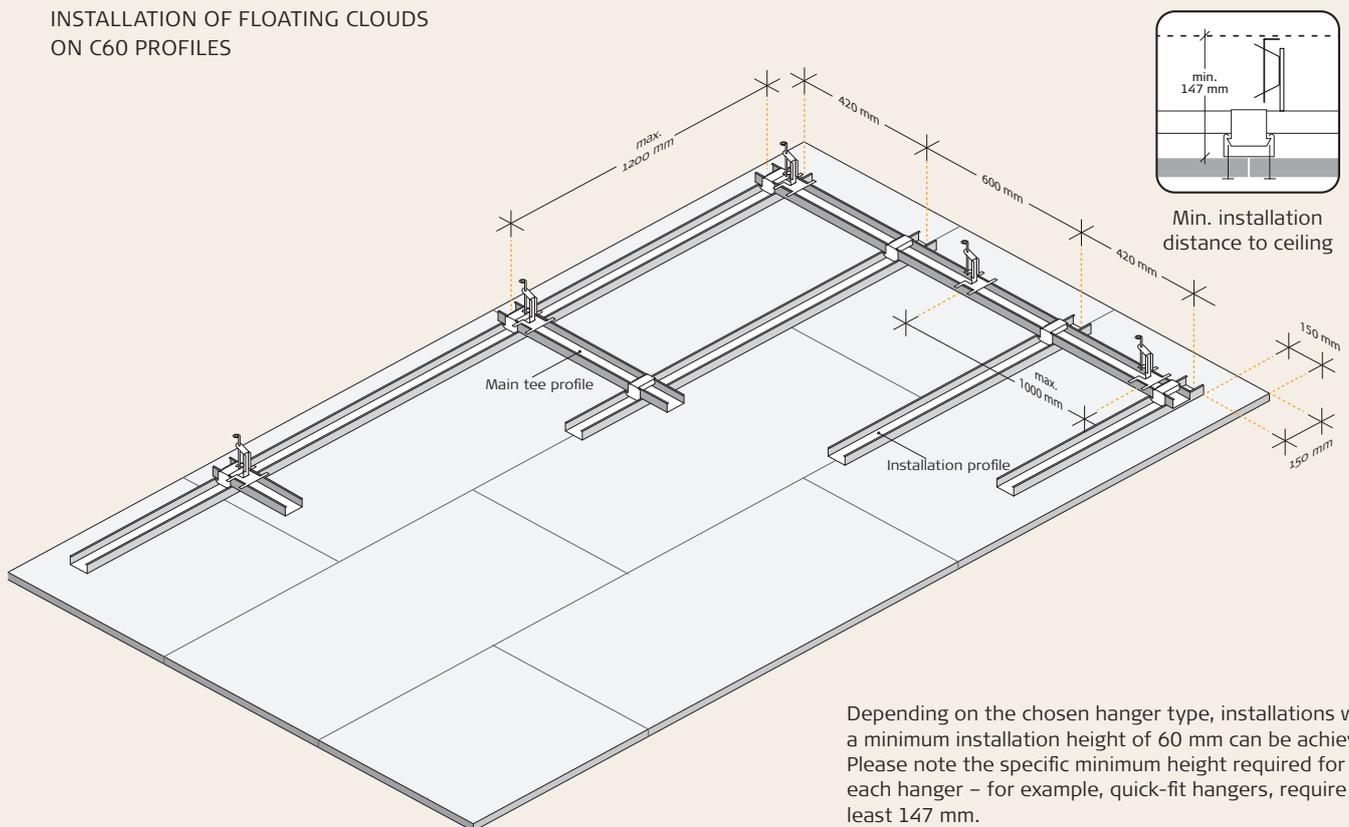


Installation instructions

Troldtekt floating clouds on C60 profiles as floating cloud without edging

These instructions describe the installation of floating clouds without edging on C60 profiles. Download installation instructions for all Troldtekt panel types at www.troldtekt.com.

INSTALLATION OF FLOATING CLOUDS ON C60 PROFILES



Depending on the chosen hanger type, installations with a minimum installation height of 60 mm can be achieved. Please note the specific minimum height required for each hanger – for example, quick-fit hangers, require at least 147 mm.

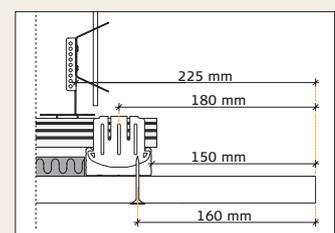
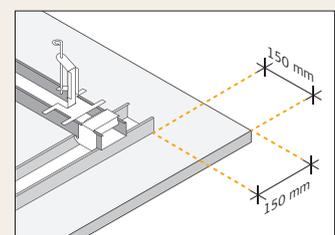
STRUCTURAL SOFFIT

1. Start by calculating the exact size of the cloud. Determine and mark the anchor points for the main profiles based on the cloud size less 225 mm longitudinally and transversely. Install quick-hangers in the four corner anchor points, and distribute the remaining quick-hangers with a max. spacing of 1000 mm. Assemble ring hook and quick-fit hangers suspension bracket to the desired length and fasten securely to the construction above before further installation. Then bend the ring hook into vertical position.

2. Hold a main profile (C60 profile) with the opening facing upwards, and click the profile over the quick-fit suspension bracket at every hanger point. Assemble the C60 profiles longitudinally using C-connectors.

3. Then click the installation profiles (C60 profiles) onto the main profiles using the cross connectors.

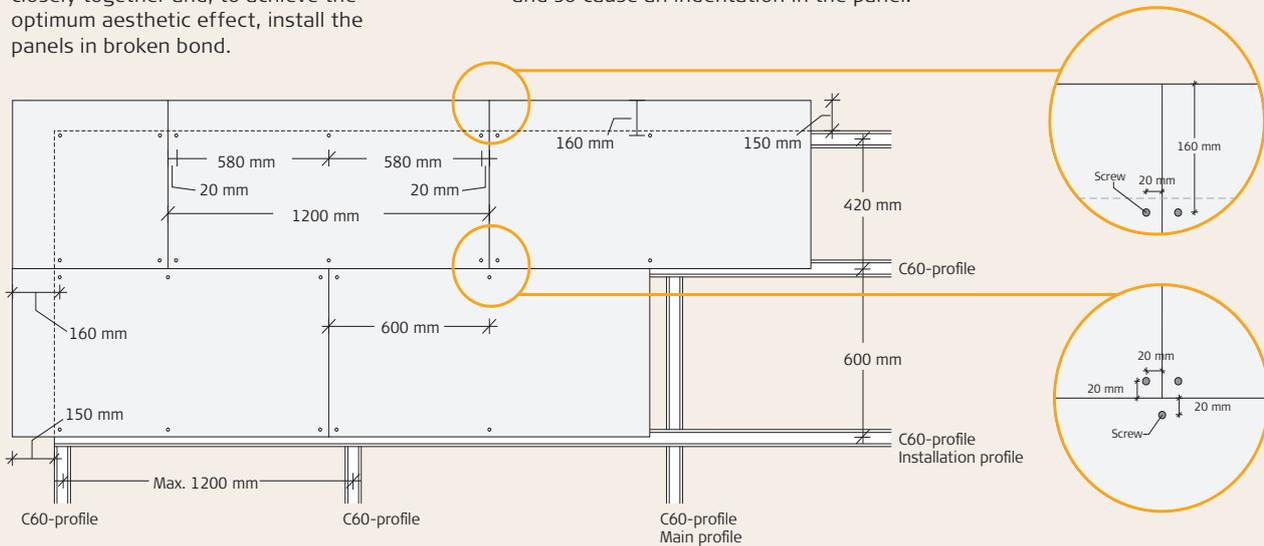
Please note: If the lateral position of the profiles is not entirely precise, you can easily push the profile in the cross connector.



INSTALLATION - EXAMPLE

1. Start by installing a complete row of Troldekt panels along the centre line of the cloud. Then continue on both sides. It is important that the panels are installed closely together and, to achieve the optimum aesthetic effect, install the panels in broken bond.

2. Fix the panels using Troldekt self-tapping screws spaced 160 mm from the edges – as indicated in the figure below. Be careful not to overdrive the screws and so cause an indentation in the panel.



General note

Profile and hanger distances depend on the panel thickness and weight, possible additional loads (installation, fitting, backing and wind) and the maximum permissible load-bearing capacity of the hangers. The design should take into account a maximum deflection of L/500 (deflection class 1).

In the case of system tests, the specifications of the corresponding test report are relevant.

COMPONENTS



Product name	C60 profile 60× 27 mm	C-connector	C-quick-fit suspension bracket	C-cross connector
Length (mm)	4000	80	100	
Quantity per pack	12 pcs	100 pcs	50 pcs	100 pcs
Approx. qty. per m ²	2.5 per running m	0.6 pcs	1.1 pcs	1.4 pcs



Product name	Ring hook	Troldekt structure screw (PH2)	Troldekt structure screw (PH2)
Length (mm)	120, 250, 375, 500, 750, 1000	4.2 × 45	4.2 × 50
Quantity per pack	100 pcs.	100 pcs.	100 pcs.
Approx. qty. per m ²	1.1 pcs.	Panel length: 600: 4 pcs. per panel 1200: 6 pcs. per panel 2400: 10 pcs. per panel	Panel length: 600: 4 pcs. per panel 1200: 6 pcs. per panel 2400: 10 pcs. per panel

PLEASE SEE INSTALLATION INSTRUCTIONS FOR C60 PROFILE SYSTEM FOR INFORMATION ON NONIUS BRACKETS ETC.

Installation instructions

Trolldtekt Elements

TROLDTEKT ELEMENTS IS AVAILABLE IN TWO SIZES:

- 1200 x 1200 mm (consisting of two acoustic panels)
- 1200 x 2400 mm (consisting of four acoustic panels)

The floating acoustic clouds hang between 150 mm and 1500 mm below the ceiling and are easy to install with the included wire rope suspension. The discreet suspension is also an aesthetically elegant solution, where the acoustic panels appear to 'float' in the room.



Scan the QR code to view the complete installation instructions for Trolldtekt Elements.

ACOUSTIC PADS FOR TROLDTEKT® ELEMENTS

Acoustic Pads for Trolldtekt Elements consist of foil-sealed rock wool panels that add extra reverberation time damping together with Trolldtekt Elements suspended ceilings. Acoustic Pads for Trolldtekt Elements are adapted to the distance between the C60 profiles, which support the Trolldtekt Elements suspended ceiling panels and are simply laid loosely behind the Trolldtekt Elements panels (see illustration below). Please note that, in some cases, Acoustic Pads for Trolldtekt Elements will comprise of two layers of rock wool inside the foil. This avoids material wastage during the production of Acoustic Pads for Trolldtekt Elements.



INSTALLATION

Acoustic Pads for Trolldtekt Elements are installed loosely between the C60 profiles that support the Trolldtekt Elements suspended ceiling panels. The example below uses Trolldtekt Elements 1200 x 1200, for which you need two Acoustic Pads for Trolldtekt Elements. For Trolldtekt Elements 1200 x 2400, you need four Acoustic Pads for Trolldtekt Elements.

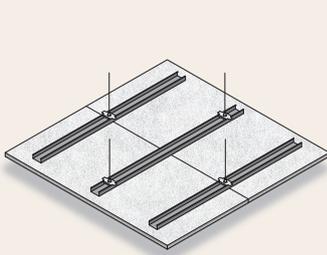


Figure 1: Trolldtekt Elements suspended ceiling installed.

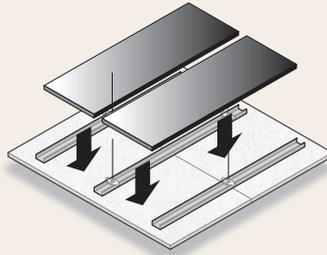


Figure 2: Acoustic Pads for Trolldtekt Elements placed loosely between the C60 profiles.

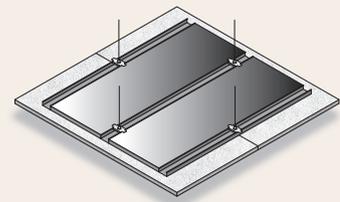
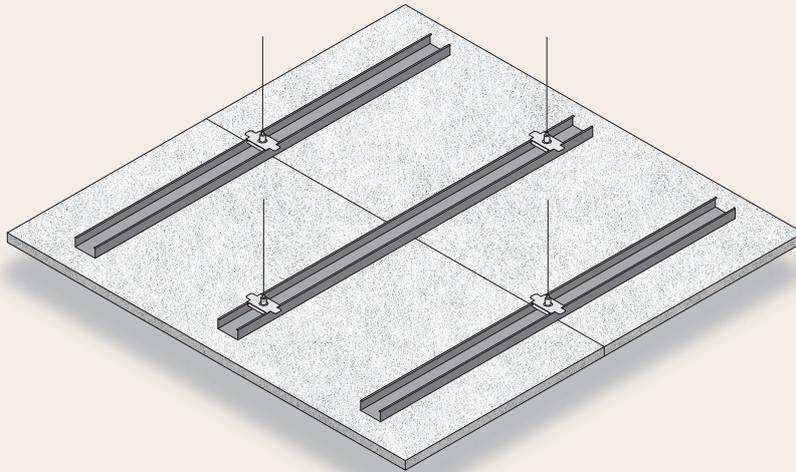


Figure 3: Acoustic Pads for Trolldtekt Elements installed.

Acoustic Pads for Trolldtekt Elements are produced and supplied by Nofisol

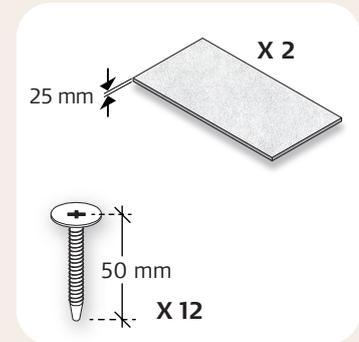
TROLDTEKT® ELEMENTS
1200 × 1200 MM



For a Troldekt® Elements floating acoustic cloud 1200 × 1200 mm, you need:

2 x Troldekt® panels
(25 × 600 × 1200 mm)
Edge K0, K5, v-line 1way and v-line 2way
Max. weight = 12kg per panel
incl. acoustic pad

12 Troldekt® structure screws for steel
(4,2 × 50 mm, Ø13)



COMPONENTS, SUSPENSION

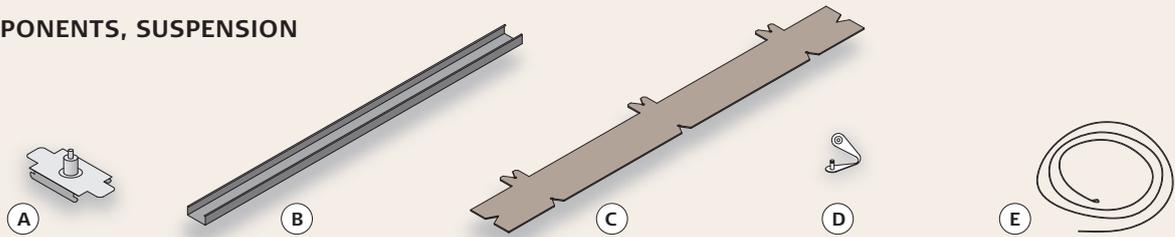
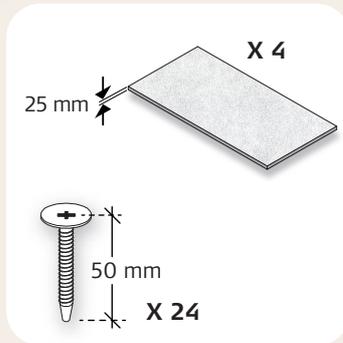
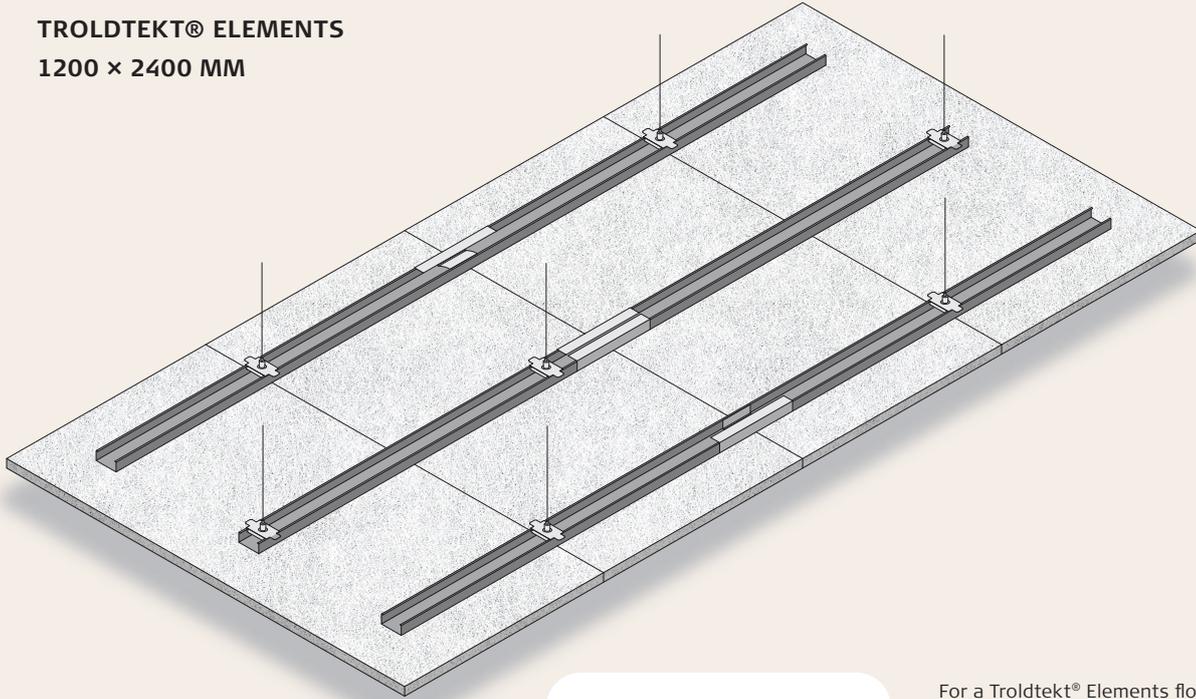


Figure	A	B	C	D	E
Description of item	Wire rope suspension	C60 rails	Templates	Connecting clips	Steel wire rope
Length (mm/in)	-	1070	1200	-	1500
Consumption per Elements floating acoustic cloud (1200 × 1200 mm)	4 units	3 units	2 units	2 units	4 units

TROLDTEKT® ELEMENTS
1200 × 2400 MM



For a Troldekt® Elements floating acoustic cloud 1200 × 2400 mm, you need:

4 x Troldekt® panels

(25 × 600 × 1200 mm)
Edge K0, K5, V-Line 1way and V-Line 2way
Max. weight = 12kg per panel incl. acoustic pad

24 Troldekt® structure screws for steel
(4.2 × 50 mm, Ø13)

COMPONENTS, SUSPENSION

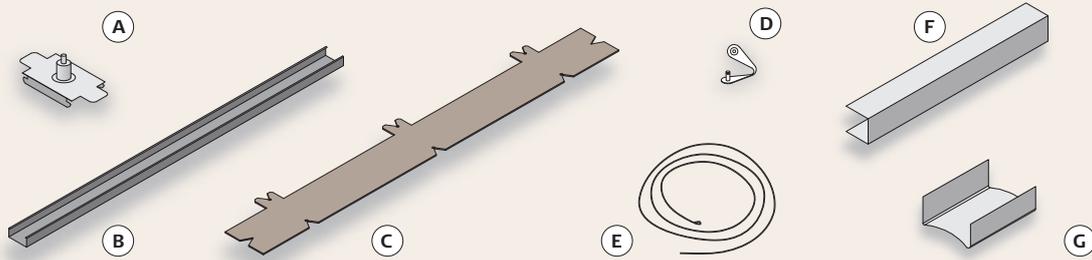
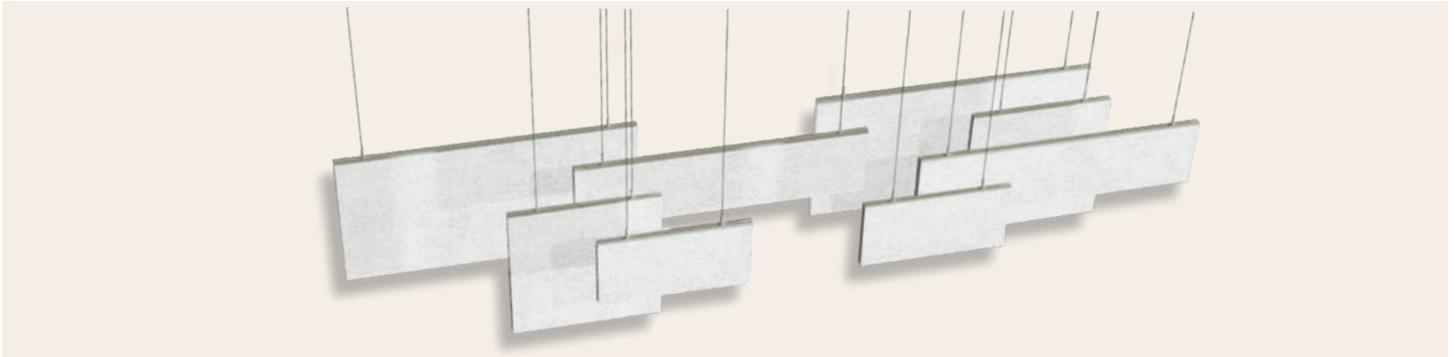


Figure	A	B	C	D	E	F	G
Description of item	Wire rope suspension	C60 rails	Templates	Connecting clips	Steel wire rope	U profiles	C connector
Length (mm/in)	-	1070	1200	-	1500	220	80
Consumption per Elements floating acoustic cloud (1200 × 2400 mm)	7 units	6 units	2 units	2 units	7 units	4 units	2 units



Installation instructions

Suspended Troldekt® baffles

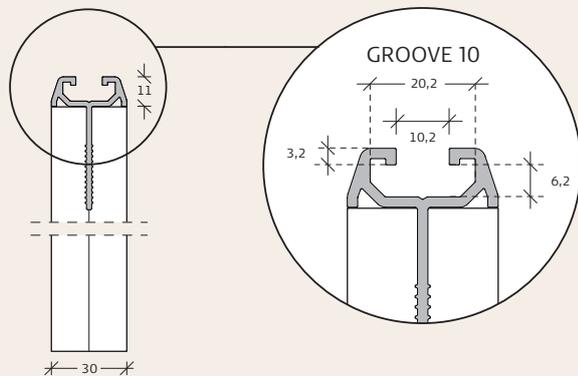


INSPECTION ON RECEIPT

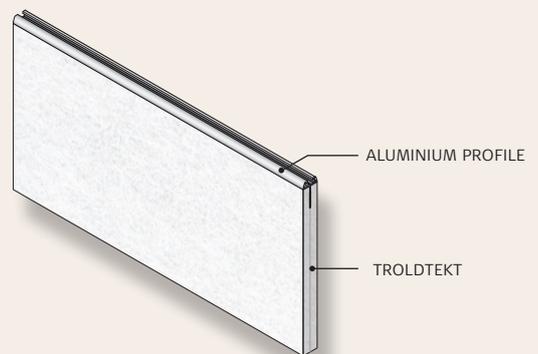
Upon receipt of the goods, check that the following components are complete and free from damage. Complain immediately in the event of recognisable faults and defects. Complaints can no longer be taken into account when the baffles are mounted.

Please also read the instructions for storage and acclimatisation, as well as maintenance and care of Troldekt acoustic panels. These can be downloaded from www.troldekt.com.

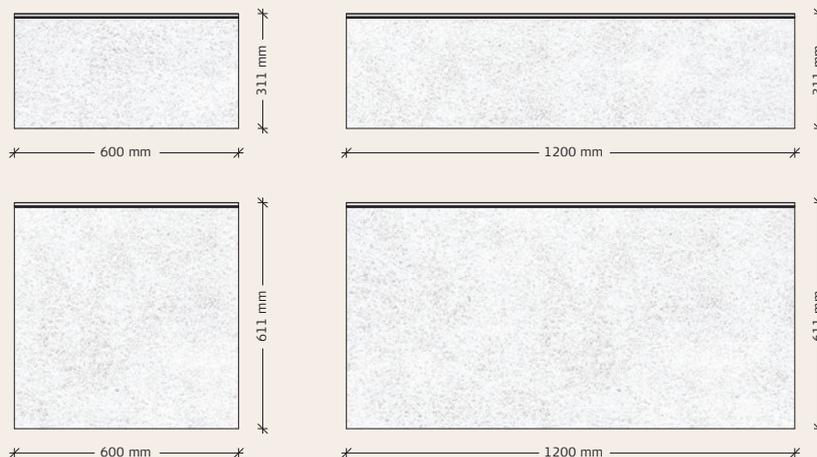
CROSS SECTION



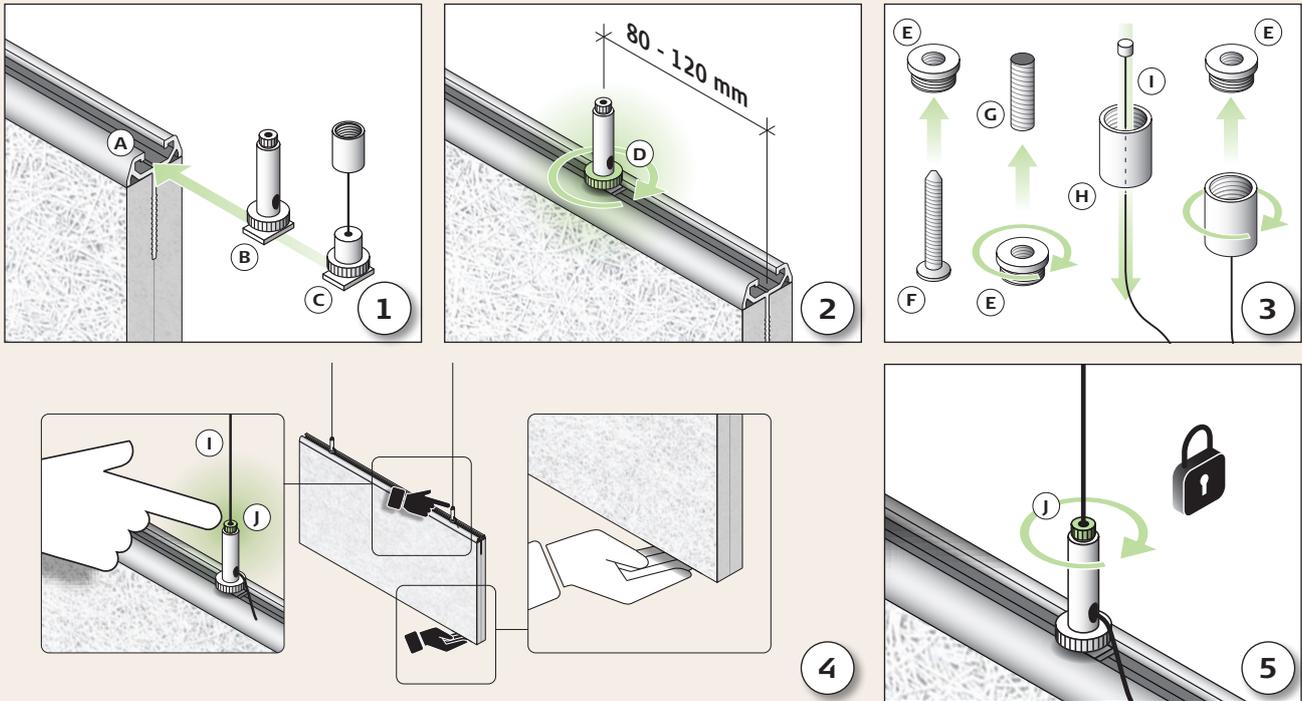
ISOMETRY



FORMATS

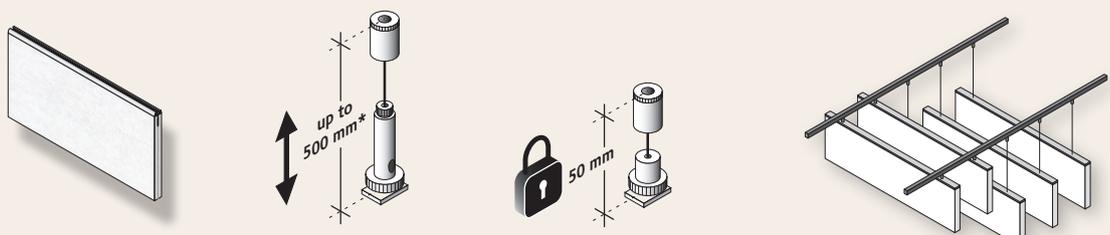


INSTALLATION OF TROLDTEKT® BAFFLES



1. Inserting the wire rope holder: Slide one wire rope holder; Kurtz version (B) or height-adjustable version (C) at the side into the rail at both ends of the aluminium profile (A). Please note: For installation with a length of more than 1800 mm, 3 wire rope holders/wire rope suspensions are required.
2. Fixing the wire rope holder: The distance between the wire rope holder and the outer edge of the baffle must be 100 ± 20 mm. Fix the wire rope holder by tightening the knurled nut (D).
3. Mounting the ceiling fastener: The ceiling fastener consists of an upper and a lower part. The upper part of the ceiling base (E) can be securely anchored to the raw ceiling with either a suitable screw (F) or an M6 external thread (standard thread) (G). Make sure that the mounting points of the ceiling base are aligned vertically with the mounting points of the wire rope holder on the baffle. Then screw the lower part (H) with the wire rope (I) inserted on the upper part (E) anchored in the ceiling. Dowels or screws are not included in the scope of delivery.
4. Aligning the baffle: Guide the wire ropes (I) into the wire rope holders. Adjust the desired end height of the baffle using the adjustment knob (J) of the wire rope holders. Relieve the load on the brackets each time you adjust the height.
5. Once the final position is reached, secure it by tightening the locking screw on the adjustment knob (J).

COMPONENTS



Description of item	Trolldtekt® baffle	Wire rope hanger, adjustable With wire rope *) up to 500mm and 1m on request	Wire rope hanger, short (50 mm)
Size/length (mm)	300 X 600/1200 mm, 600 X 600/1200 mm (Other sizes on request)	2 pcs per baffle (3 pcs. for length > 1800 mm)	2 pcs per baffle (3 pcs. for length > 1800 mm)

For alternative mounting methods including solutions with ceiling rails, see separate **Inspiration brochure**.

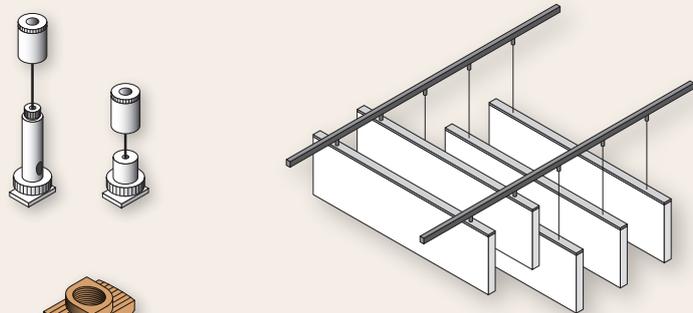
TROLDTEKT® BAFFLES INSPIRATION

for alternative installations

INSPIRATION FOR INSTALLATION OF:

1. Wire rope hanger and mounting rail:

Examples of how the wire rope hangers supplied by Trolldtekt (short or height-adjustable) can be suspended from mounting rails (mounting rails are not supplied by Trolldtekt).



2. Further connection options with the standard groove 10 in the baffle profile allows other types of suspension.



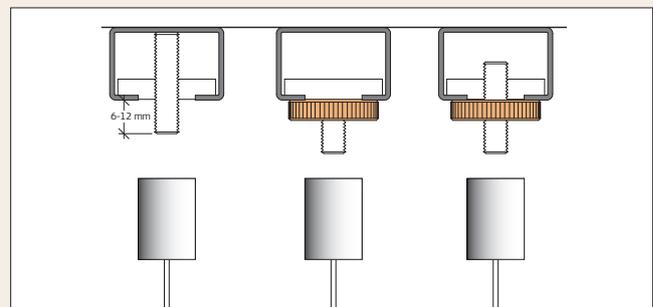
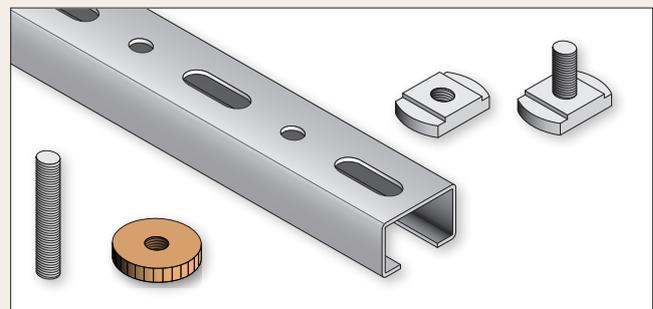
1. WIRE ROPE HANGER AND MOUNTING RAIL FIXING:

The wire rope hangers supplied by Trolldtekt (short and height-adjustable) can be combined with a mounting rail (steel or aluminium).

The rail can be a standard mounting rail with standard accessories, which are offered by different manufacturers.

Trolldtekt is happy to help you with a reference. The connection between the wire rope hanger and the mounting rail can be made in various ways via an M6 thread with a free thread length of 6-12 mm.

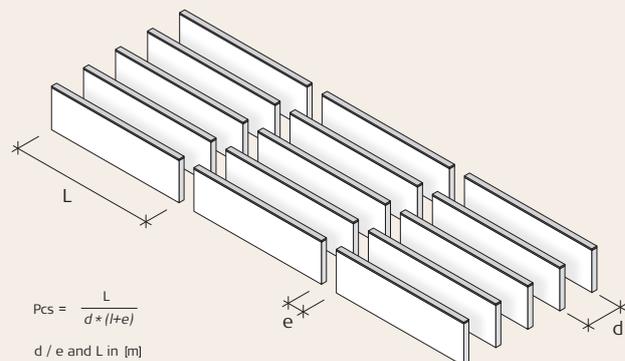
The static design of the mounting rails must be coordinated with the relevant manufacturer. The weights for the individual baffle sizes are specified in the data sheet of the baffles.



 = Components marked in orange can be supplied by Trolldtekt.

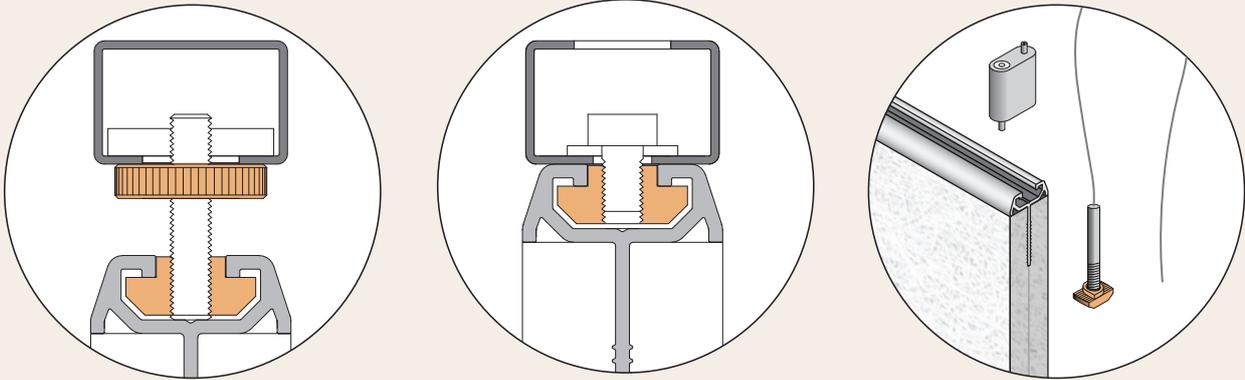
MATERIAL CONSUMPTION (BAFFLE PER SQUARE METRE)

Baffle Length L (mm)	Row spacing d (mm)			
	300	600	900	1200
600	5.56	2.78	1.85	1.40
1200	2.78	1.39	0.93	0.70

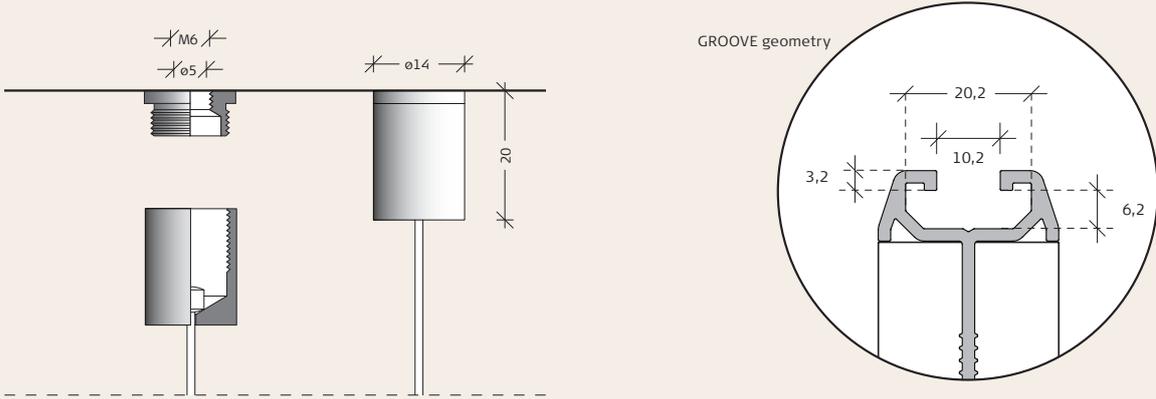


2. FURTHER CONNECTION OPTIONS WITH STANDARD GROOVE 10:

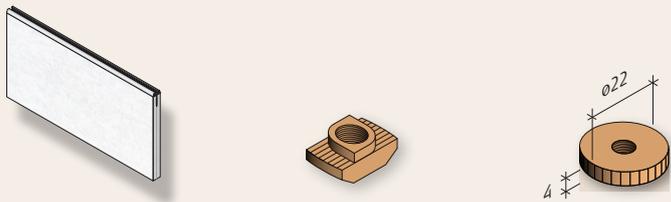
The groove 10 geometry in the baffle profile allows a wide range of combinations with standard mounting rails and alternative fixing options.



DIMENSIONS



COMPONENTS



Description of item	Troldekt® baffle	Clamping shoe with M6 internal thread	M6 knurled nut
Modular dimension Height/length (mm)	300 X 600/1200 mm, 600 X 600/1200 mm <i>(Other sizes on request)</i>	2 pcs per baffle	

= Components marked in orange can be supplied by Troldekt.

PRODUCT DATA

Module and Dimensions

Module height (mm)	300/600
Total height (mm)	311/611
Length (mm)	600/1200
Thickness (mm)	30

Other dimensions available on request.

Fire

Baffles are made of panels in fire class: **B-s1,d0** **A2-s1,d0**
 Reaction to fire in accordance with EN 13501-1:2018

Weight ultrafine and fine (kg/pcs)

300x600	3.0	3.4
300x1200	6.0	6.8
600x600	5.6	6.4
600x1200	11.2	12.8

Suspension

Steel wires and cable holder*
 Aluminium top profile

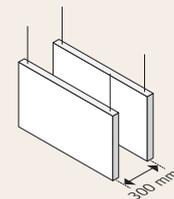
* Baffles and accessories are not suitable for use in swimming pools or areas exposed to wind loads, strong air movements, ball impact or mechanical stress.

ACCREDITED SOUND MEASUREMENTS

30 x 600 x 1200 mm
 Centre distance = 300 mm

Hz	125	250	500	1000	2000	4000
α_p	0.30	0.35	0.50	0.65	0.75	0.90

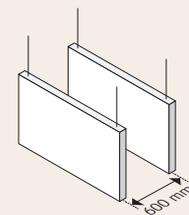
$\alpha_w = 0.55$ - NRC = 0.55 - Absorption class D



30 x 600 x 1200 mm
 Centre distance = 600 mm

Hz	125	250	500	1000	2000	4000
α_p	0.20	0.25	0.35	0.45	0.50	0.65

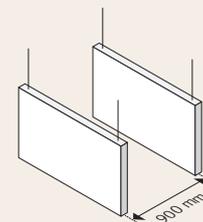
$\alpha_w = 0.45$ - NRC = 0.40 - Absorption class D



30 x 600 x 1200 mm
 Centre distance = 900 mm

Hz	125	250	500	1000	2000	4000
α_p	0.10	0.15	0.25	0.35	0.35	0.50

$\alpha_w = 0.35$ - NRC = 0.25 - Absorption class D



Scan the QR code to download PDF document containing more sound absorption values



Product Circularity

104–107 Product Circularity



Product Circularity

Troldtekt works with return models that can give acoustic panels one or even more extra life cycles. Here, you can find the several different circular models and scenarios for different waste fractions.

NATURAL RAW MATERIALS AND CRADLE TO CRADLE CERTIFICATION

Troldtekt acoustic panels are made from certified wood, a 100% natural material, and cement extracted from Danish mineral resources. We offer PEFC™-certified or FSC®-certified Norway spruce (FSC® C115450). Both certifications guarantee that the wood comes from responsible forestry operations. The production of Troldtekt panels uses only cement from Aalborg Portland, which extracts the raw materials from the Danish subsoil with the least possible environmental impact.

Chalk and sand are the main raw materials used to make Portland cement.

Troldtekt is Cradle to Cradle Certified® at gold level and we have complete documentation ensuring that no harmful substances are included in the product. Consequently, the product can safely return to nature's cycle. In addition, waste from the production of Troldtekt panels is included in the technical cycle as a resource used in new cement at Aalborg Portland.

RECYCLING OF PRODUCTION WASTE

In the past, we handled our production waste as a single waste fraction. However, in order to derive the greatest possible value from the resources in our production waste, we are now separating the waste into several different fractions, which are utilised in various ways. This approach enables us to test and try out different solutions in both the biological and the technical cycle. The long-term aim is for a number of these solutions to be rolled out

to include building site and demolition waste, including old Troldtekt panels (at end of life).

In the biological cycle, we are working with different solutions that will give our cement-bonded wood wool waste yet another function – or life cycle – before ending its days as soil conditioner.

RECYCLING OF CONSTRUCTION WASTE FROM BUILDING SITES

Troldtekt waste from building sites in the form of clean offcuts and waste can also be reintroduced in the biological cycle without any problem. Here, the only challenge is finding partners in the industry who can see the potential in building a healthy business model on this basis.

RECYCLING OF DEMOLITION WASTE

Troldekt cement-bonded wood wool has a very long lifetime – approx. 50-70 years – and, as of today, the old cement-bonded wood wool panels cannot be safely returned to nature. This is because comprehensive environmental screening is required to establish whether the panels have, for example, been surface-treated during use. In 2018, we launched a pilot project together with Aalborg Portland, where dust from our edging workshop is used in the production of new cement. The wood content of the Troldekt dust contributes to the combustion process (energy), while the cement content becomes a raw material in new cement. The dust is transported to Aalborg Portland cement in the cement lorries that would otherwise be returning empty after delivering cement to the factory in Troldekte.

Cement production is a thermal process, which renders harmless any surface treatment of old panels, and in the long term, the solution will therefore also be suitable for Troldekte demolition waste. We

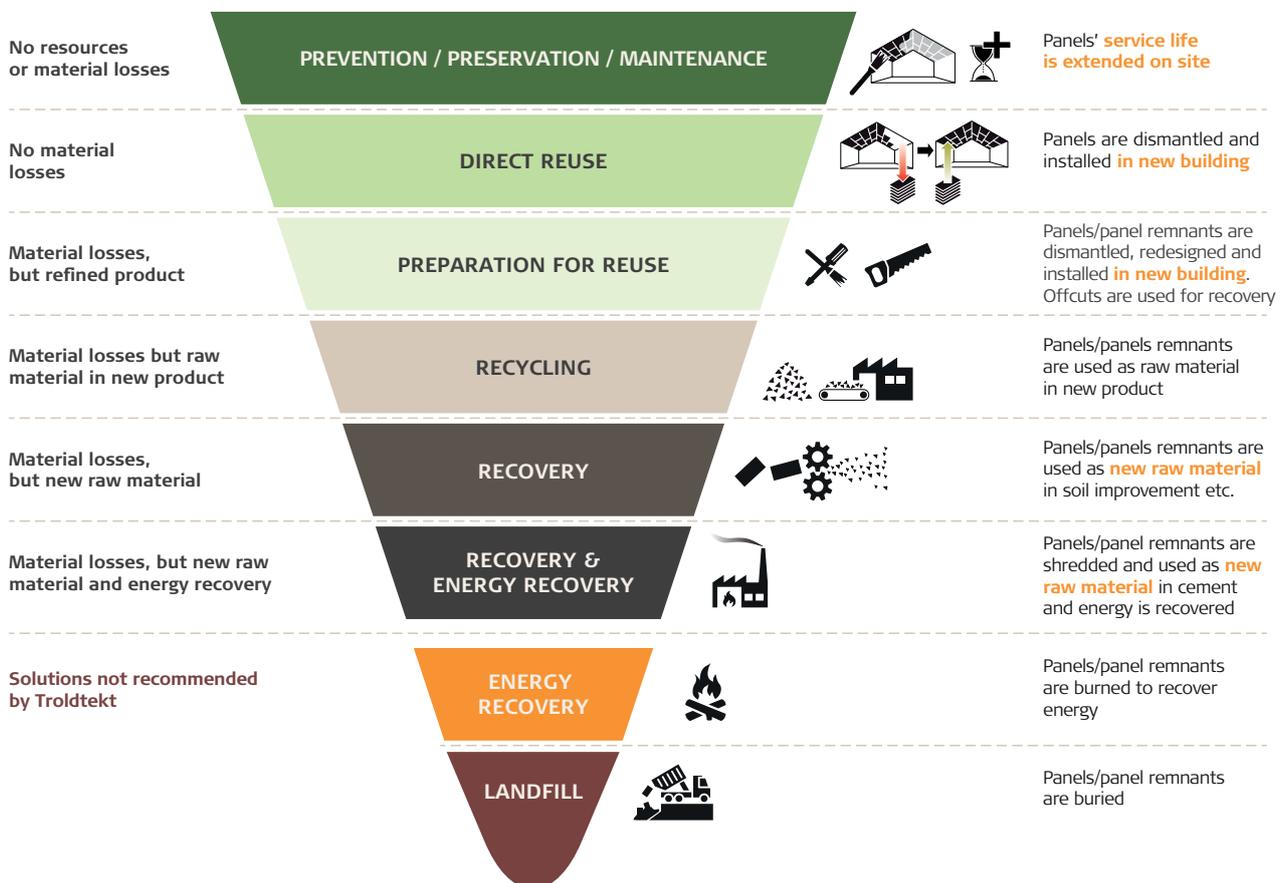
are working to find similar business partners on selected European markets.

Until this solution can be rolled out to also include demolition waste, we recommend that Troldekte waste is burned in incineration plants designated by the recycling centre.

There are considerable environmental benefits to be gained from maximising the lifespan of the panels and from reintroducing the panels in the biological or the technical cycle rather than sending them for incineration.

Incineration is, however, an option in cases where landfill is the only alternative. From an environmental point of view, landfill will always be the least attractive option when disposing of Troldekte panels that have reached the end of their lifespan.

Contact the local recycling station/receiving station for more guidance.



We're with you every step of the way

The Trolldtekt team is ready to help you before, during and after your choice of acoustic solution.

At Trolldtekt, we know that there are many requirements to fulfil on both the drawing board and the building site. Acoustics, aesthetics, fire performance, CO₂, efficient installation – everything must come together. On time and on budget. That's why you should also know that our team is always there for you.

We've been here since 1935, so we've faced most challenges before. We can certainly help you, too.



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Denmark

GOOD ACOUSTICS SINCE 1935

At Troldtekt, we are committed to ensure good acoustics and contribute to a good indoor climate in buildings. We are driven a passion for people and the planet.

Since 1935, we have been producing Troldtekt acoustic panels made from Danish wood and cement. We design, develop and manufacture the panels at our high-tech factory in Denmark.

We make a difference you can hear

Troldtekt contributes to acoustic comfort in most types of architecture – in many countries around the world. Our acoustic panels clad ceilings and walls in offices, businesses, schools, childcare institutions, cultural venues, sports facilities, swimming pools and private residences. Wherever Troldtekt is used, we make a difference you can hear.

We recognise the value of high quality

We understand that quality materials are essential for future-proofing the architecture. Troldtekt acoustic solutions contribute to distinctive buildings that last. We are ambitious and work continuously to develop even better solutions while remaining competitive.

We take responsibility

For us, it is important to work holistically with people and environment in all aspects of our business. That's why the Cradle to Cradle Certified[®] design concept is a key part of our business strategy. The concept's three basic principles are to eliminate waste, transition to renewable energy and support diversity. At Troldtekt, this translates into initiatives that focus on the environment, society and business.

We are part of an ambitious group

Since 2022, Troldtekt has been part of the Kingspan Group, a listed Irish building materials company with operations in more than 80 countries. With its Planet Passionate programme, Kingspan has set ambitious climate goals. By 2030, Kingspan will be a zero-waste-to-landfill company with carbon-neutral production with no net emissions.

Visit Troldtekt online for more inspiration:



#troldtekt

#goodacoustics



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The printed material is Cradle to Cradle Certified[®] ensuring that the paper and inks are produced without chemicals and heavy metals.

The printed matter also carries the Nordic Swan Ecolabel – the official ecolabel throughout the Nordic region.

The wood for the paper comes from responsible FSC-certified forestry, which ensures that the origin is traceable and that no more wood is felled than the forests can reproduce.

