



## User manual

### BackCover Holder + Profile



Type: LongNose



**ENGLISH**

Version: 19.11.2020 / B



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# 1. Introduction

Thank you for your choice and your confidence in our product!

The BackCover system is an elegant accessory for attaching molleton, banners or tarpaulins to tubular supports such as trusses. The requirement is that the suspension has a round keder.

This document is a tool for you to determine quickly and easily the correct dimensions for a hanging (such as molleton, banner, etc.). As we do not know exactly how you want to use the BackCover system, we provide you detailed information.

In this manual we discuss the following parts:

- ✔ BackCover Holder (Standard & LongNose)
- ✔ BackCover Profile
- ✔ BackCover Safety
- ✔ BackCover Profile CutAide

## General notes:

All components have left our company in the best condition. If you follow the instructions below and pay attention to the notes, you will enjoy this product for a very long time.



We explicitly declare that we - as the manufacturer - do not take any liability for damages caused to the product or damages at the event caused by improper use of the product.

Please note that damages caused by manual changes to the product are not covered by warranty.

Useful videos and helpful info can be found on our website [www.ontruss.de](http://www.ontruss.de).

## 2. The BackCover system

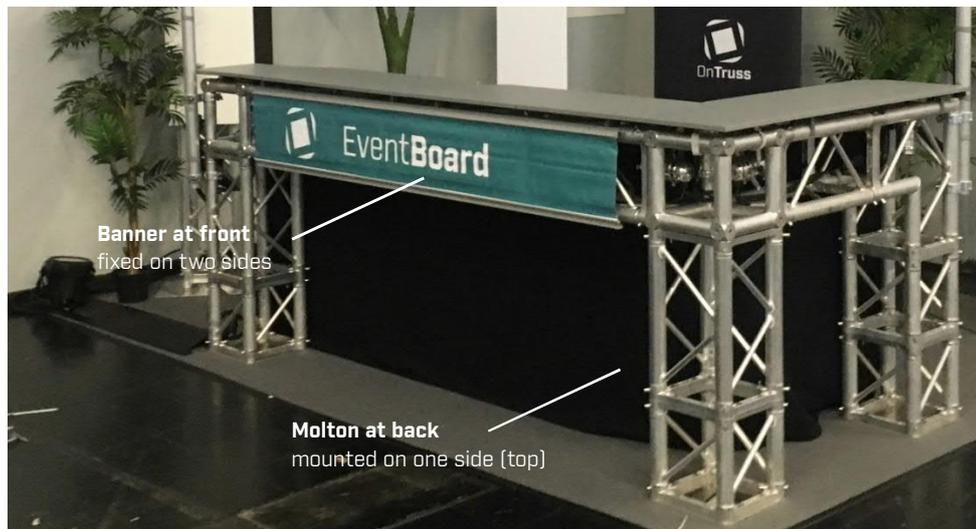
We've developed the BackCover system to attach tarpaulins, banners, fabric panels, etc. to event trusses or 50mm pipes in a quick and easy way.

You probably know this: eyelets can easily tear out. Attaching banners - for example with cable ties or rubber expanders - is quite tedious. After work is done, the result is okay. But not even perfect. And last but not least, removing the cable ties takes time and the right tools. Finally, if you want to store the banner crease-free, it becomes tricky again...

We take a different approach.

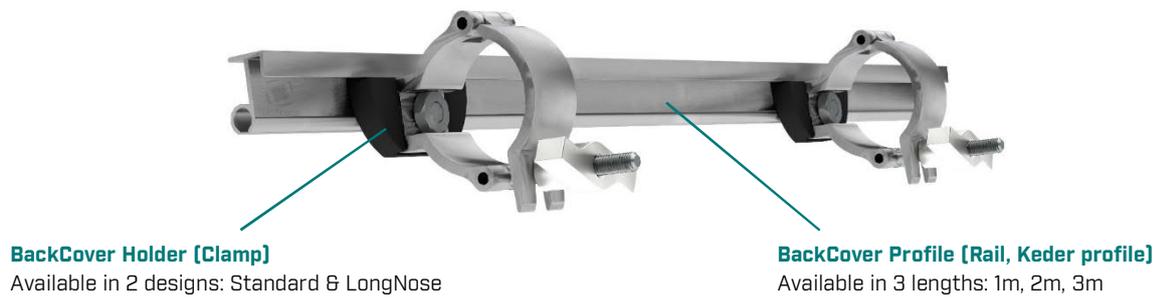
### The origin.

The system was initially designed as an accessory for our EventBoard counter *Arriba*. There, we recommend the system to attach a back wall elegantly or to attach banners on the front in a wind-stable way.



**On the next pages we will show you what is possible.**

## Overview of the system.



The *BackCover Profile* is placed on the *BackCover Holder* from the top. The clamp is attached to the (truss) pipe. At least two clamps are necessary to fix one profile.

### To prevent any misunderstandings:

The system is used to attach suspensions such as fabric panels, banners and tarpaulins. Please note that these materials are not part of the delivery.

On the following pages we'll show you more about the important factors for the fabrication of molton, banners, etc.

### 3. BackCover Holder

The *BackCover Holders* are mounted to the (truss) pipe in regular distances. There is no tool required to do this. Later, you hang the keder profile (*BackCover Profile*) into the clamp. Thanks to the large handle, you can easily tighten the clamp by hand.



BackCover Holder (Standard)

**The clamp is designed for a pipe diameter of 48mm ... 51mm.**

#### Product range - BackCover Holder

The clamps are available in two versions: Standard und LongNose

Version	Part number	Weight / pcs.
<b>BackCover Holder Standard</b>	101.041.050.004 (Set with 2 pcs.) 101.043.050.004 (Set with 10 pcs.)	~160g
<b>BackCover Holder LongNose</b>	101.051.050.004 (Set with 2 pcs.) 101.053.050.004 (Set with 10 pcs.)	~170g

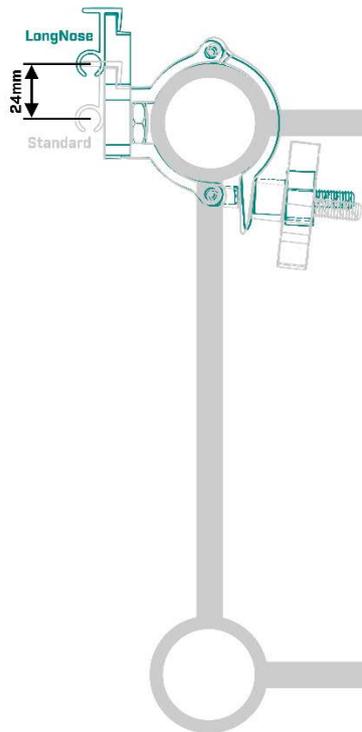
Both versions (*Standard / LongNose*) can be used in practice in the same way.

#### Clear matter:

It's important that along a keder profile the same type of clamp is used only. Otherwise, the *BackCover Profile* does not fit correctly on the mounting plates.

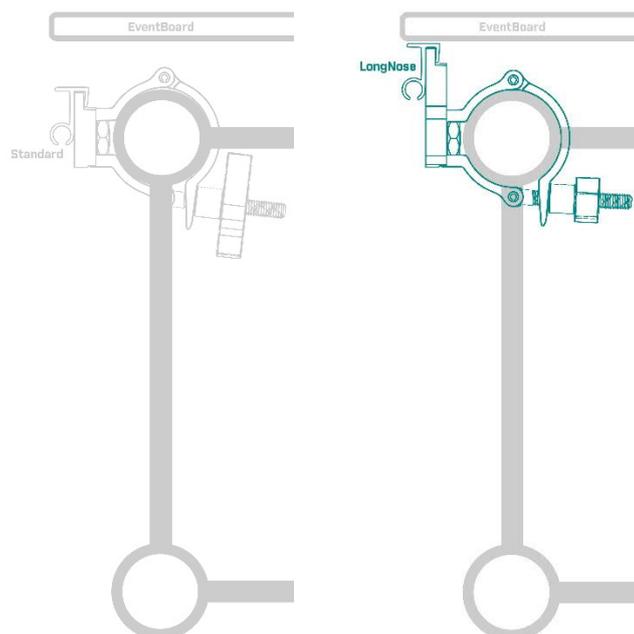
### Standard vs. LongNose

Both versions are fully compatible with the rest of the *BackCover* components. They differ only in one feature: the profile is mentally shifted by 24mm.



### Use in combination with the EventBoard

The LongNose version was originally designed to close the visible gap between the EventBoard and the truss. A nice side effect: Unhooking of the suspension is prevented by the overhanging EventBoard.

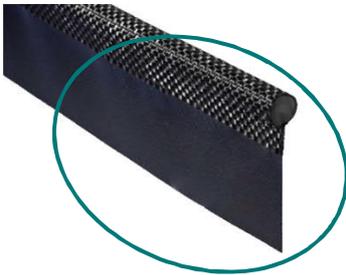


## 4. BackCover Profile

Any hanging material with round keder can be inserted into the *BackCover Profile*. These can be prefabricated banners, molleton, tarpaulins, fabric panels, etc. Afterwards, the profile is placed on the *BackCover Holder*.

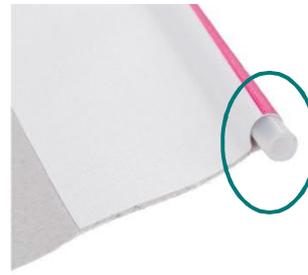


These examples demonstrate you what a round keder is:



### Round keder strip, single-faced

- ✔ to sew or glue on
- ✔ ideal for fabrics (e.g. molleton)



### Round keder cord made of hard plastic

- ✔ for insertion into welded hemstitch
- ✔ ideal for banners / tarpaulins

Today, round keders are widely used. They are available in different diameters.

**Our profile can handle  $D = 5.5\text{mm} \dots 8.5\text{mm}$ .**

### Good to know:

In most cases, textile manufacturers, printers and tarpaulin manufacturers can easily attach a round keder. Just ask them.

### Product range - BackCover Profile

The profile is available in the following lengths and sets:

Type	Part number	True length [mm]	Weight / Pcs.
1m	101.031.100.000 (Set with 2 Pcs.) 101.033.100.000 (Set with 10 Pcs.)	950 $\pm 0,5$	300g
2m	101.031.200.000 (Set with 2 Pcs.) 101.033.200.000 (Set with 10 Pcs.)	1950 $\pm 0,5$	620g
3m	101.031.300.000 (Set with 2 Pcs.) 101.033.300.000 (Set with 10 Pcs.)	2950 $\pm 0,5$	940g

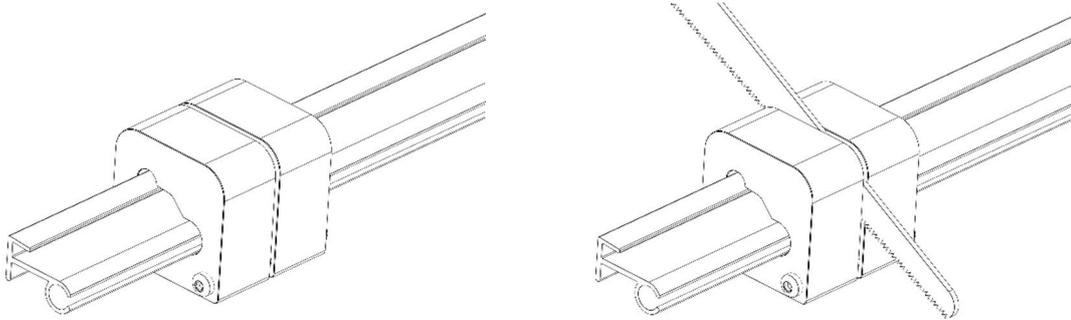
### Info about the profile length

Please note that the profiles are always 5cm shorter than the full meter value. This can be helpful, for example at an EventBoard counter, if you want to hang a back cover around a corner.

The profile can be shortened to any dimension. If your hanging is longer than 3 meters, you can insert the round keder into several profiles one after the other.

### Shorten the profile:

A special length is quite easy to make. The easiest way is to use a saw. We recommend a hand-held metal saw in combination with our *BackCover Profile CutAide* cutting tray. The cutting tray holds the profile positively and simplifies right-angled sawing. The cutting tray is compatible with all common saw blades up to 1mm thickness.



This makes shortening the profiles much easier: *BackCover Profile CutAide*

Alternatively, the profile can also be shortened with a circular table saw or band saw. It's important that the saw blade is suitable for processing aluminum.



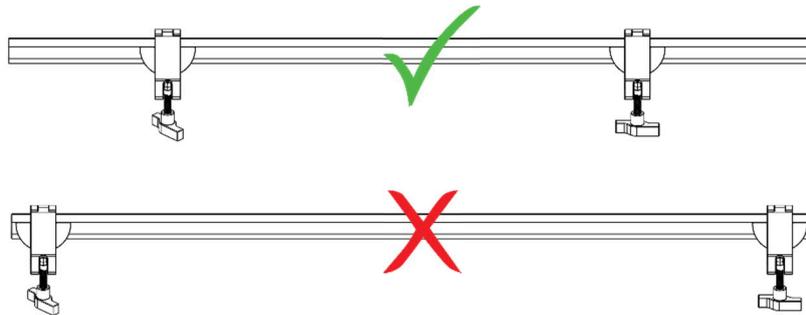
### Deburring

In order to prevent cutting injuries, the shortened profile ends must be deburred carefully.

## 5. Number and position of BackCover Holder

In many cases, 2x *BackCover Holder* per profile are sufficient. This specification is independent of the profile length (1m, 2m, 3m). However, depending on the tensile force generated by the hanging, you should use more clamps.

Try to place the clamps in such a way that the moments of force cancel each other out on average. This ensures minimal deflection of the profile.



The load limits are listed below:

Profile length	Min. number of clamps	Max. line load per profile	Max. line load per meter
1m	2x	48 kg	48 kg/m
2m	2x	48 kg	24 kg/m
3m	2x 3x	48 kg 72 kg	16 kg/m 24 kg/m

For the given uniform line loads the following conditions are assumed: Horizontal mounting, optimum clamp arrangement (cancellation of force moments), 50mm tube, one profile on one clamp, each clamp tightened with min. 40Nm.



### Max. line load

The specified line loads refer to our system. The load limits of the substructure (pipe / truss structure) must also be taken into consideration.

### Example:

A molleton (300g/m<sup>2</sup>) with a dimension of 3m x 6m (W x H) weighs about 5.4 kg. Freely suspended, it exerts a uniform line load of 1.8 kg per meter.



Result:

A 3m profile can be attached on 2 evenly distributed clamps.

The limit - according to the table - is 16 kg per meter.

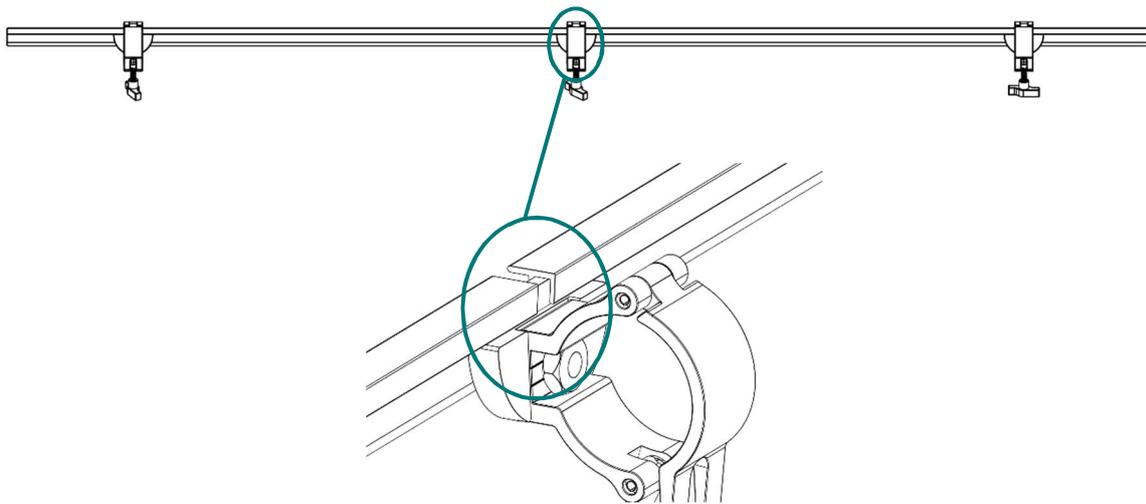


### Number of clamps

The number of clamps depends on the length, weight and location (indoor / outdoor) of the hanging. The minimum number of clamps must be determined individually.

### This is the way to attach two profiles to one clamp:

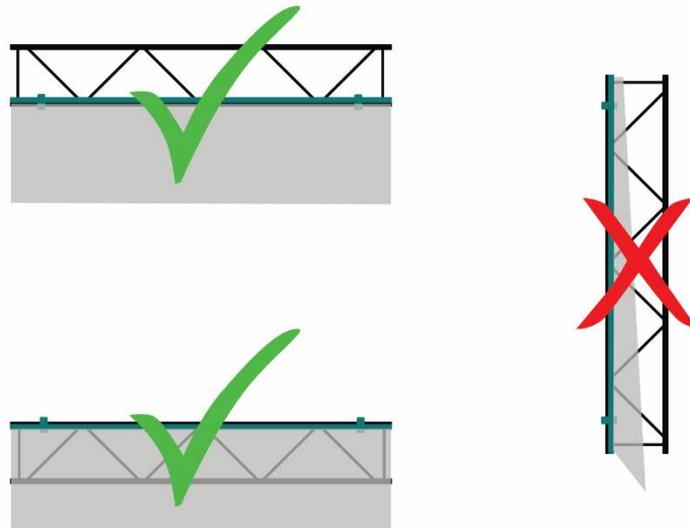
You can hang two profiles on one clamp. The plastic plate has a width of approx. 60mm to hold both profiles.



Thanks to this approach, you save clamps and can attach hangings of any width.

## 6. One-sided mounting – Horizontal

Single-sided mounting is only allowed for horizontal installations.



### Mounting instructions:

You attach at least 2 *BackCover Holders* to the truss pipe. Please pay attention to proper distances between the clamps (see chapter 5). Hang in the profile from top. If necessary, you can fix the rail with the *BackCover Safety* clips.



### In case of overhead mounting:

A *BackCover Safety* clip must be attached to each *BackCover Holder*.

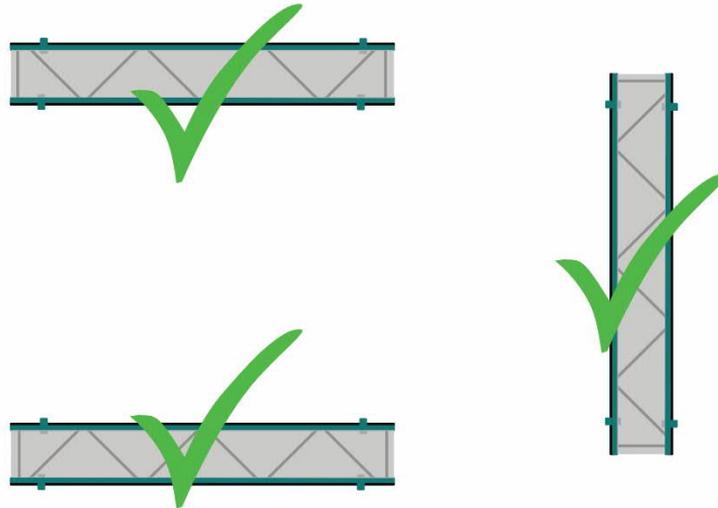
### Real-life example:



Molton used as back cover for counter, used in combination with OnTruss EventBoard

## 7. Double-sided mounting – Horizontal & Vertical

If you fix a hanging on both sides, it provides additional stability. Especially for outdoor applications, this kind of mounting is very smart. In this case, you also have the option to mount banners upright.



### Mounting instructions:

First of all, you mount all BackCover holders on the upper truss pipe. At the lower pipe you only prepare the clamps: Attach them loosely by closing the half clamp and tightening it only slightly with the handle. Now insert the banner from top. To tighten the banner, repeat the following steps on each loose clamp: Turn the clamp so that the plastic plate engages in the profile and the banner is well tensioned. Hold the clamp in that position and tighten it completely by using the handle.



### In case of overhead mounting:

A *BackCover Safety* clip must be attached to each *BackCover Holder*.

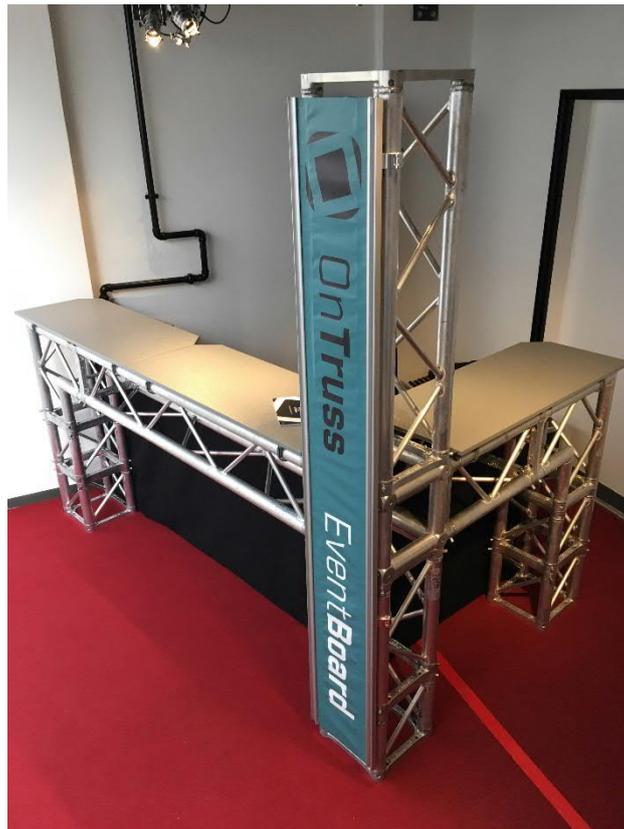
### Real-life examples:



Banner on front edge of a counter, horizontal mounting, fixed on both sides



Banner on front edge of a counter, horizontal mounting, fixed on both sides



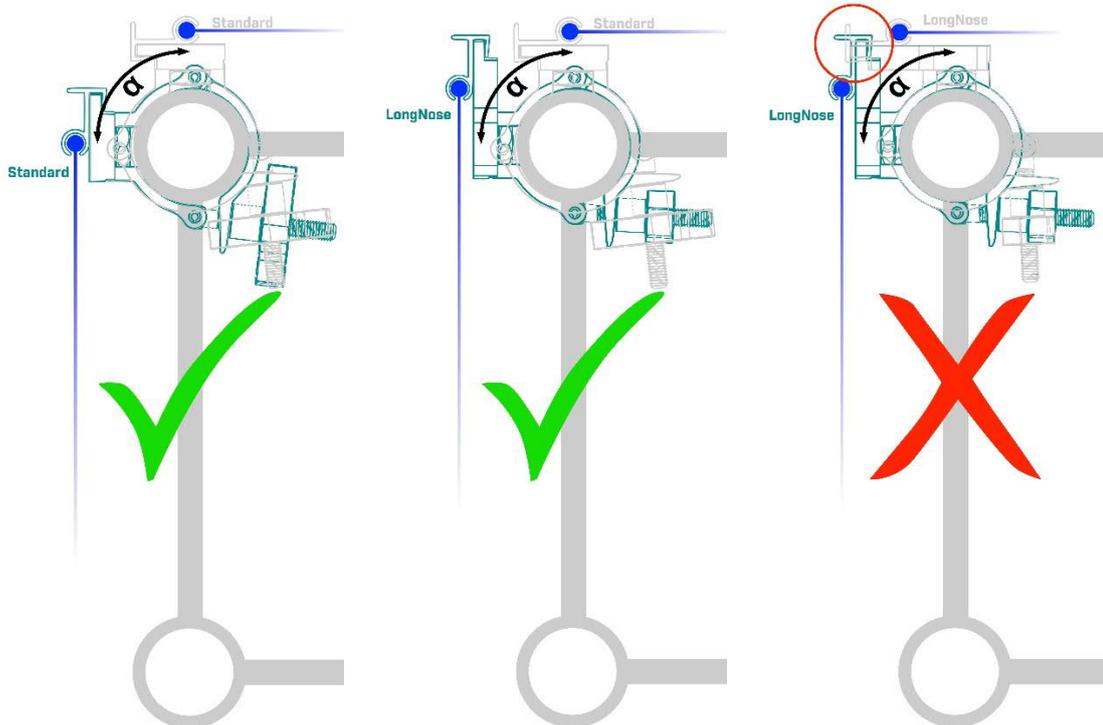
Vertical banner on upright truss, mounting on both sides

## 8. Two separate banners across a corner

Of course, you can also cover several sides of a truss with a separate banner.

### 4-Point-Truss:

If you want to attach a separate banner to each of two sides - across a corner - a collision (overlap) can occur at the corner pipe. Basically, this can only happen with 4-point trusses. And only if the *LongNose* clamp is used at this corner for both banners. Here you can see what we mean:



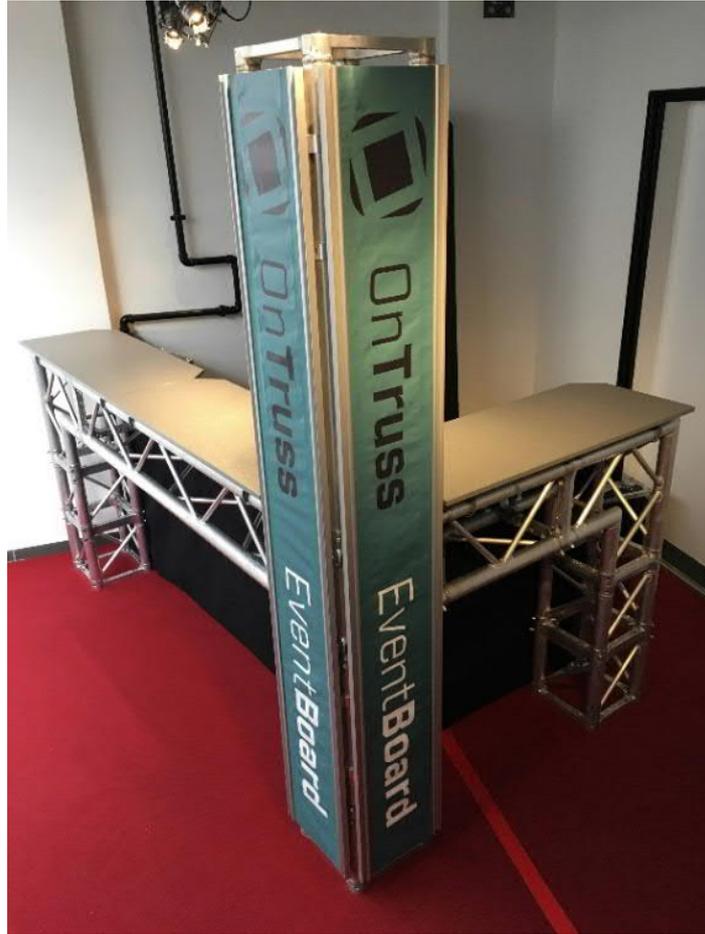
### 2-Point- / 3-Point-Trusses:

There is no restriction in this case. You can use all clamp combinations at the corner point.

The minimum angle required between the two clamps is shown in this table:

Clamps at corner	Angle $\alpha$ (Minimum)	Comment
<b>Standard : Standard</b>	$\geq 80^\circ$	2-Point-Truss: Angle between 2 sides = $180^\circ$ 3-Point-Truss: Angle between 2 sides = $120^\circ$ 4-Point-Truss: Angle between 2 sides = $90^\circ$
<b>Standard : LongNose</b>	$\geq 90^\circ$	2-Point-Truss: Angle between 2 sides = $180^\circ$ 3-Point-Truss: Angle between 2 sides = $120^\circ$ 4-Point-Truss: Angle between 2 sides = $90^\circ$
<b>LongNose : LongNose</b>	$\geq 110^\circ$	<b>4-Point-Truss is not possible.</b> The angle between 2 sides is $90^\circ$ . Required is min. $110^\circ$ .

**Real-life examples:**



Two vertical banners (each fixed on both sides) over a 90° angle,  
Clamps at the corner pipe: Standard : LongNose

## 9. Tips for disassembly and storing

The *BackCover Profile* is compact and lightweight. You can roll up the banner including the profile and store it. So you don't have to reinsert the round keder every time. A nice side benefit is that rolling up around a profile makes wrinkle-free storing easier.

### Narrow hangings with one profile per round keder

Narrow banners - up to 3m wide - can be easily rolled up: Use one profile as a stable core and wind the banner around it.

rolled up

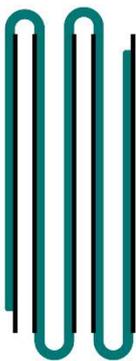


BackCover Profile  
Molton / Banner

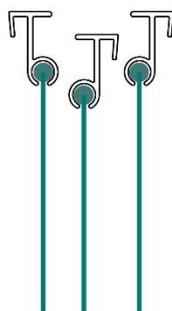
### Wide hangings with several profiles

Of course it's also possible to handle wide hangings (>3m) easily. For these lengths, the round keder is threaded into several profiles. Due to the interruptions, you can first fold the hanging like a meter stick and then wind it around the profile bundle.

Top View



Side View



rolled up



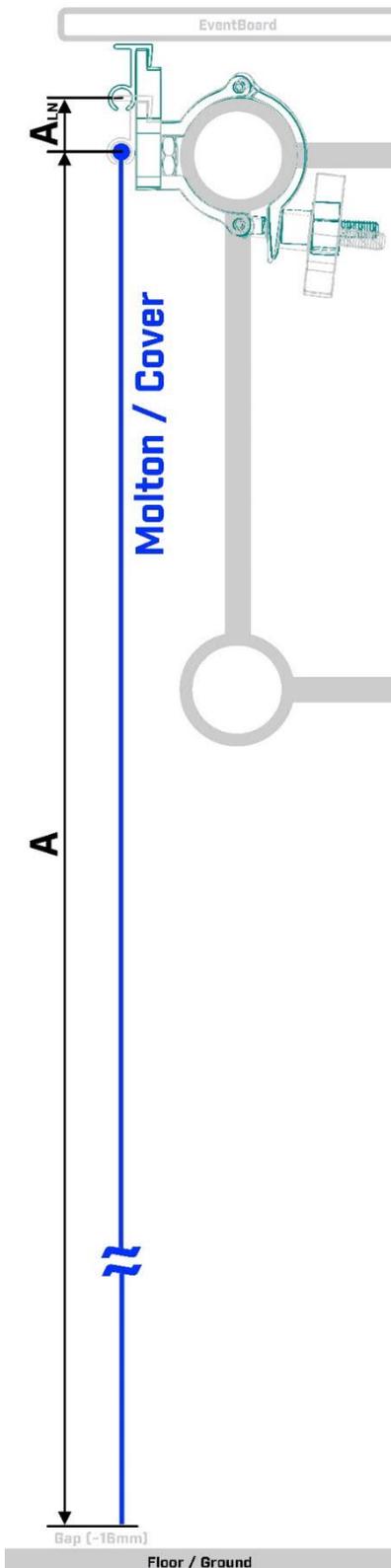
BackCover Profile  
Molton / Banner

#### Tip:

It's a good idea to store the rolled-up hanging inside a 3-point or 4-point truss.

## 10. Fabrication of single-sided hangings

On this page we show you how to make a hanging with one-sided fastening. With these information you can determine the correct height by yourself.



### General calculation

Dim.	Typical (with distance to floor)	Exact (without distance = length to floor)
<b>A</b>	= [Top Edge] - 40mm	= [Top Edge] - 23,5mm
<b>A<sub>LN</sub></b>	= [Top Edge] - 15mm	= [Top Edge] + 0,5mm

[Top Edge] = top edge of truss = outer dimension of truss assembly (height)

### Example 1: Truss height 100cm (= top edge)

Setup: 1x 50cm Truss + 1x Truss-Corner

Dim.	Typical (with distance to floor)	Exact (without distance = length to floor)
<b>A</b>	960mm	976,5mm
<b>A<sub>LN</sub></b>	985mm	1000,5mm

### Example 2: Truss height 108cm (= top edge)

Setup 1: 1x 29cm Truss + 50cm + Box-Corner

Setup 2: 2x 29cm Truss + 1x Truss-Corner

Dim.	Typical (with distance to floor)	Exact (without distance = length to floor)
<b>A</b>	1040mm	1056,5mm
<b>A<sub>LN</sub></b>	1065mm	1080,5mm

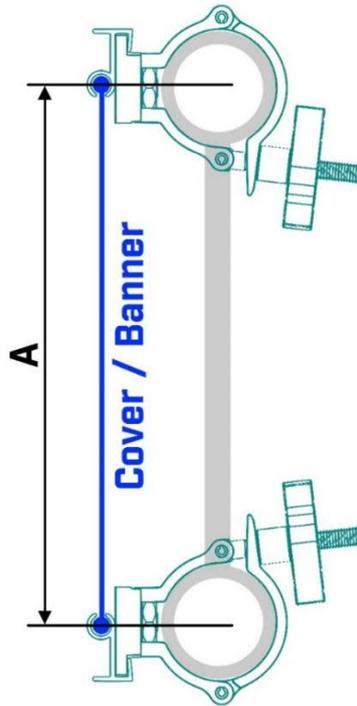
The above values are based on a truss with outer dimensions of 290mm x 290mm and 50mm main pipe.

### Hint:

For the typical values, the hanging ends with a distance of ~16mm to the floor.

## 11. Fabrication of double-sided hangings (Standard clamp used)

This page shows you how to make a hanging in correct height if you want to cover one side of the truss completely. You want to use the *BackCover Holder Standard* on both sides.



**The center of round keder is located 1.5mm outwards from pipe center.**

If you use the same type of clamp (Standard) on both sides, this is the correct value for the banner height:

Dim.	Typical	Min. ... Max.	Exact
A	240mm ( = pipe distance )	225mm ... 255mm ( = pipe distance ± 15mm )	243mm ( = pipe distance + [ 2 x 1,5mm ] )

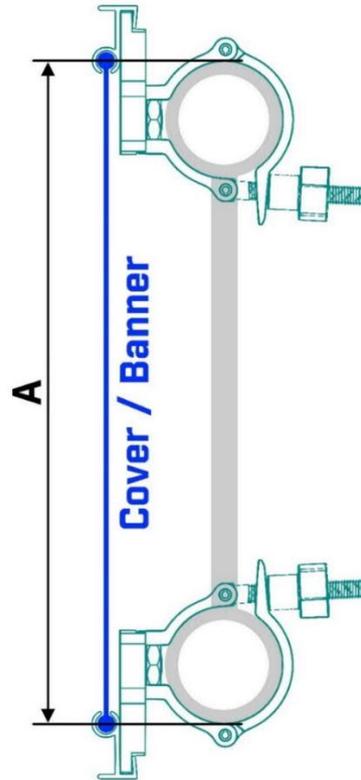
For the above values, we assume a truss with outer dimension 290mm x 290mm and 50mm main pipe.

### Rule of thumb for *BackCover Holder (Standard)*:

For a 50mm pipe (= common truss type) the round keder is approximately at the same level as pipe center.

## 12. Fabrication of double-sided hangings (LongNose clamp used)

This page shows you how to make a hanging in correct height if you want to cover one side of the truss completely. You want to use the *BackCover Holder Longnose* on both sides.



**The center of round keder is located 25.5mm outwards from pipe center.**

If you use the same type of clamp (LongNose) on both sides, this is the correct value for the banner height:

Dim.	Typical	Min. ... Max.	Exact
<b>A<sub>LN</sub></b>	290mm [ = pipe distance + 50mm = outer dim. ]	280mm ... 300mm [ = outer dim. of truss ± 10mm ]	291mm [ = pipe distance + { 2 x 25,5mm } ]

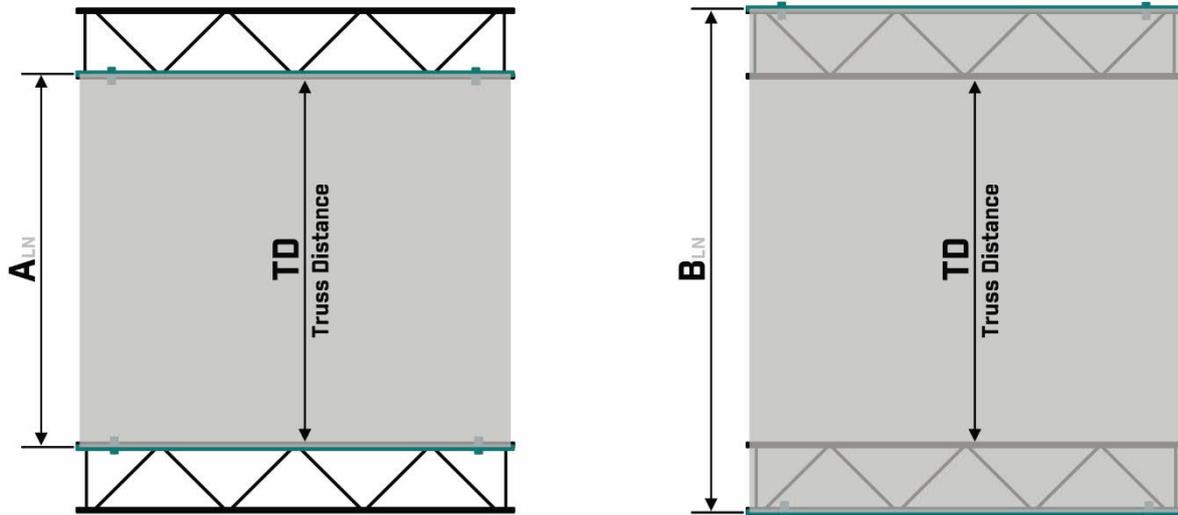
For the above values, we assume a truss with outer dimension 290mm x 290mm and 50mm main pipe.

### Rule of thumb for *BackCover Holder LongNose*:

For a 50mm pipe (= common truss type) the round keder is approximately at the same level as the outer pipe surface.

### 13. Fabrication in case of fastening between 2 trusses

This page shows you the correct way to manufacture a hanging if you want to install it between two trusses.



If you use the same type of clamps (*Standard* bzw. *LongNose*) on both sides, then these are the correct values for the height of hanging:

#### Hanging according to left example

Dim.	BackCover Holder	Mounting on main pipe	Calculation of height
<b>A</b>	Standard	both sides, inside	= TD + 53mm [ = TD + 50mm + [2 x 1,5mm] ]
<b>A<sub>LN</sub></b>	LongNose	both sides, inside	= TD + 101mm [ = TD + 50mm + [2 x 25,5mm] ]

#### Hanging according to right example

Dim.	BackCover Holder	Mounting on main pipe	Calculation of height
<b>B</b>	Standard	both sides, outside	= TD + 533mm [ = TD + 50mm + [2 x 1,5mm] + [2 x 240mm] ]
<b>B<sub>LN</sub></b>	LongNose	both sides, outside	= TD + 581mm [ = TD + 50mm + [2 x 25,5mm] + [2 x 240mm] ]

TD: Truss Distance (from outer edge to outer edge)

For the above values, we assume a truss with outer dimension 290mm x 290mm and 50mm main pipe.

## 14. Support

You can find useful videos on our website or on our Youtube channel.

Do you need more information? Our support is at your disposal.

### Contact:

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