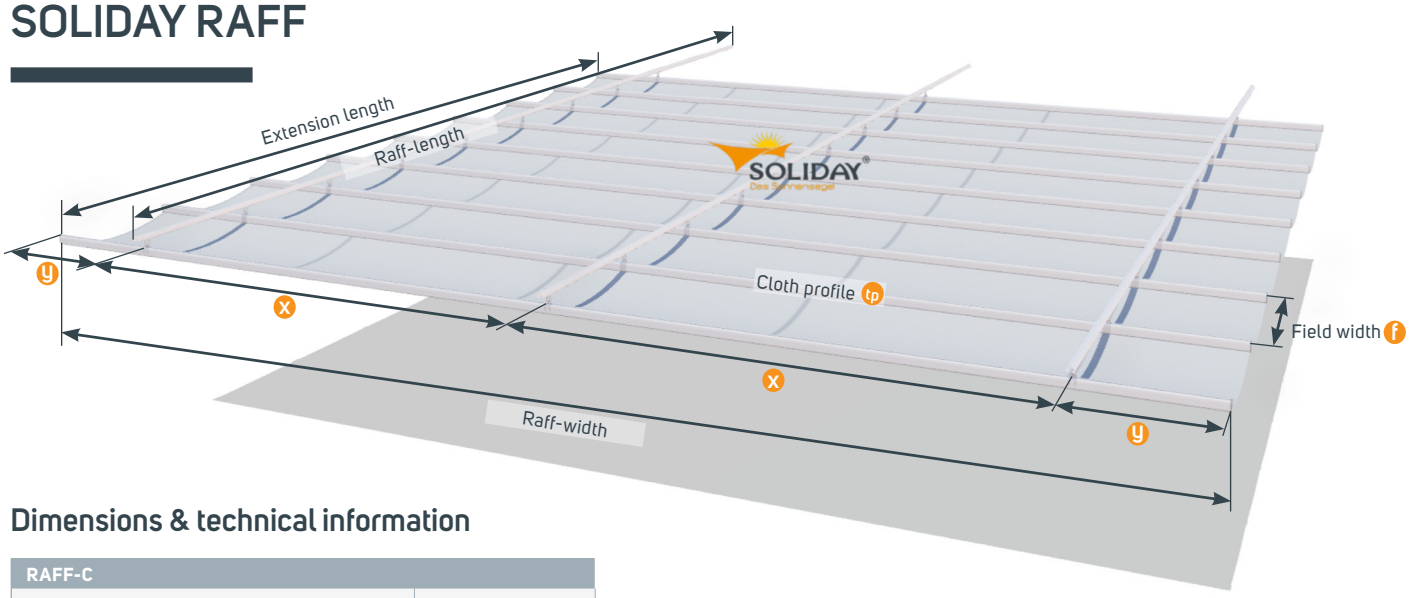
SOLIDAY®
Sunsails & Outdoor-Lounges

PLANNING ASSISTANCE
SOLIDAY RAFF



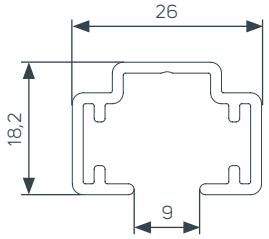
Dimensions & technical information

RAFF-C	
Max. length:	10000 mm
Max. width*:	10000 mm
Max. guide rail spacing outdoor x:	3000 mm
Max. guide rail spacing indoor x:	*4000 mm*
Max. overhang outdoor y:	1000 mm
Max. overhang indoor y:	*1500 mm*

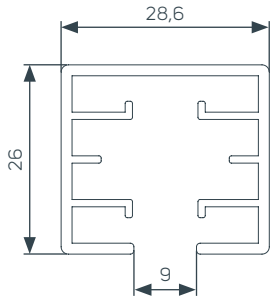
RAFF-M guide rail	
Max. length:	10000 mm
Max. width*:	8000 mm
Max. distance of the guide rails outdoor x:	3000 mm
Max. distance of the guide rails indoor x:	*4000 mm*
Max. overhang outdoor y:	1000 mm
Max. overhang indoor y:	*1500 mm*
Minimum mounting distance guide rail:	every 700 mm

**Max. width with Austronet 950:* *3900 mm*

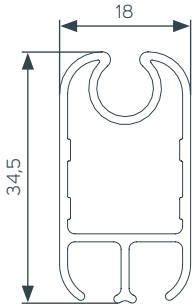
RAFF-M wire rope	
Max. length:	10000 mm
Max. width*:	6000 mm
Max. distance of the wire rope guides outdoor x:	2000 mm
Max. distance of the wire rope guides indoor x:	*3000 mm*
Max. overhang outdoor y:	1000 mm
Max. overhang indoor y:	*1500 mm*



Guide Rail
RAFF-M & Outdoor Curtains

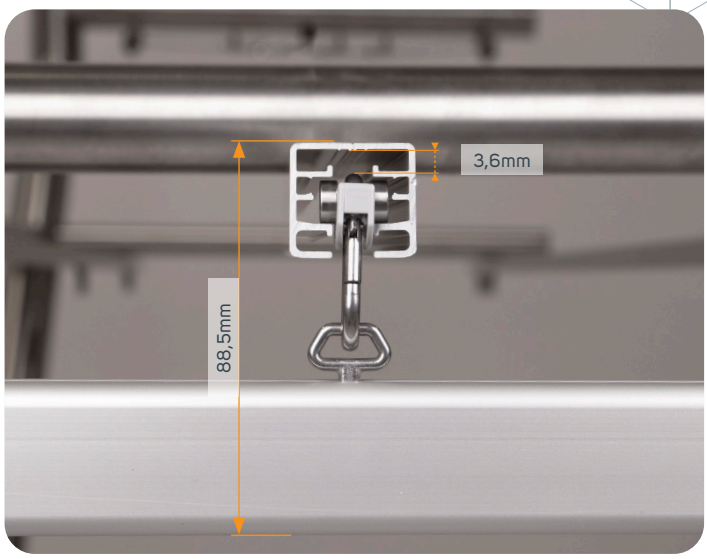


Guide Rail
RAFF-C

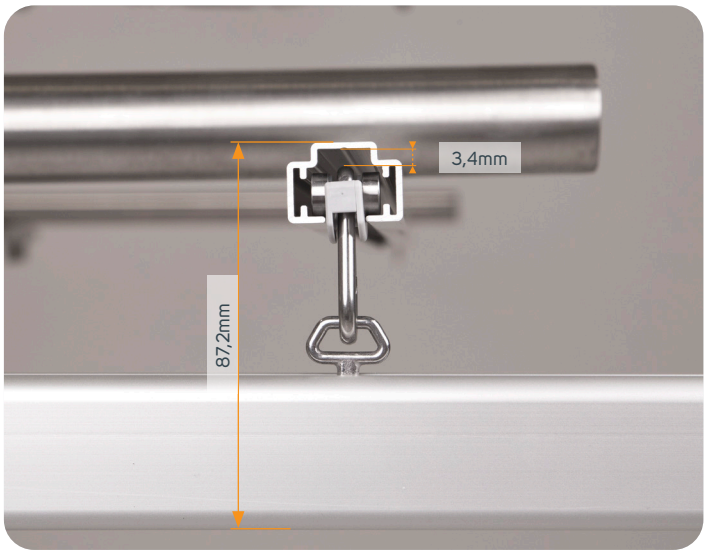


Cloth Profile TP3
RAFF-C & RAFF-M

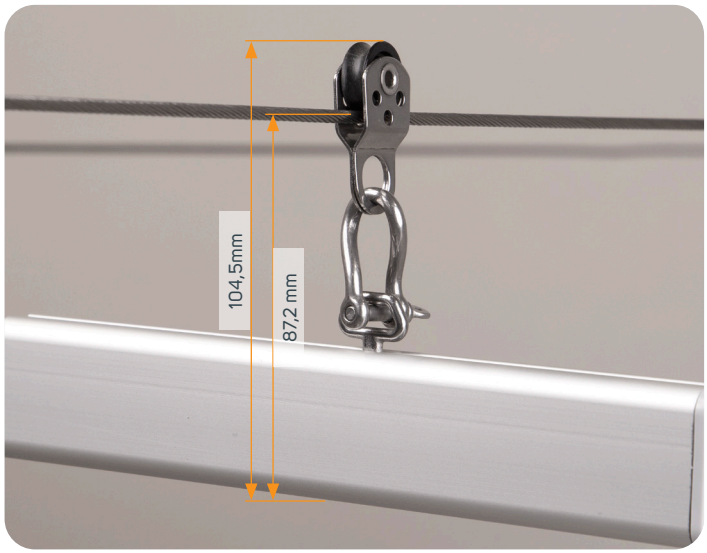
DIMENSIONS IN MM



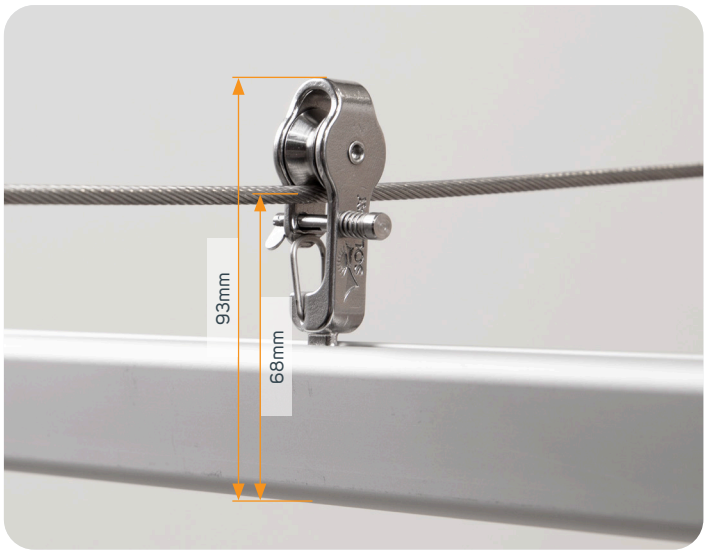
RAFF-C guide rail suspension
Guide rail C - screw head height max. 3.6 mm



RAFF-M guide rail suspension
Guide rail M - screw head height max. 3.4 mm



RAFF-M wire rope guide suspension



Raff-M wire rope guide suspension with SOLIDAY wire rope pulley

RAFF-M wire rope

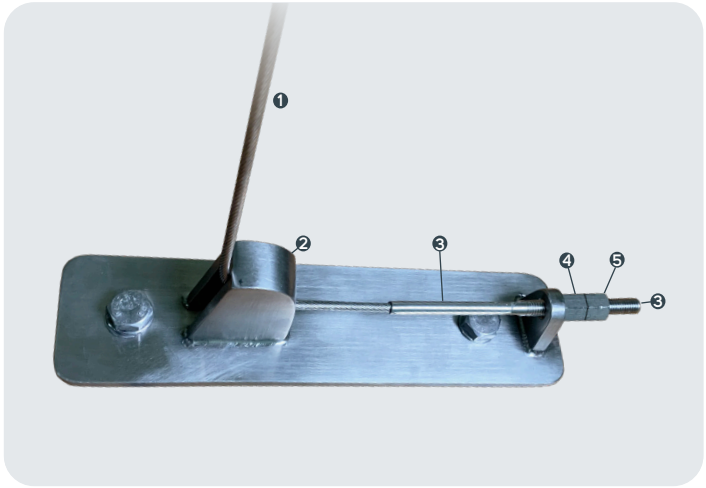
The new „RAFF-M wire rope" system represents an advanced solution for the installation of the RAFF-M. The innovation of this system is based on specially developed wall plates that act both as anchor points and as tensioning elements for the wire ropes. The wire rope is installed by threading it into the wall plate, followed by a 90° bend and securing. The wire rope is threaded at both ends, allowing it to be securely fastened and tensioned to the wall plates using nuts.

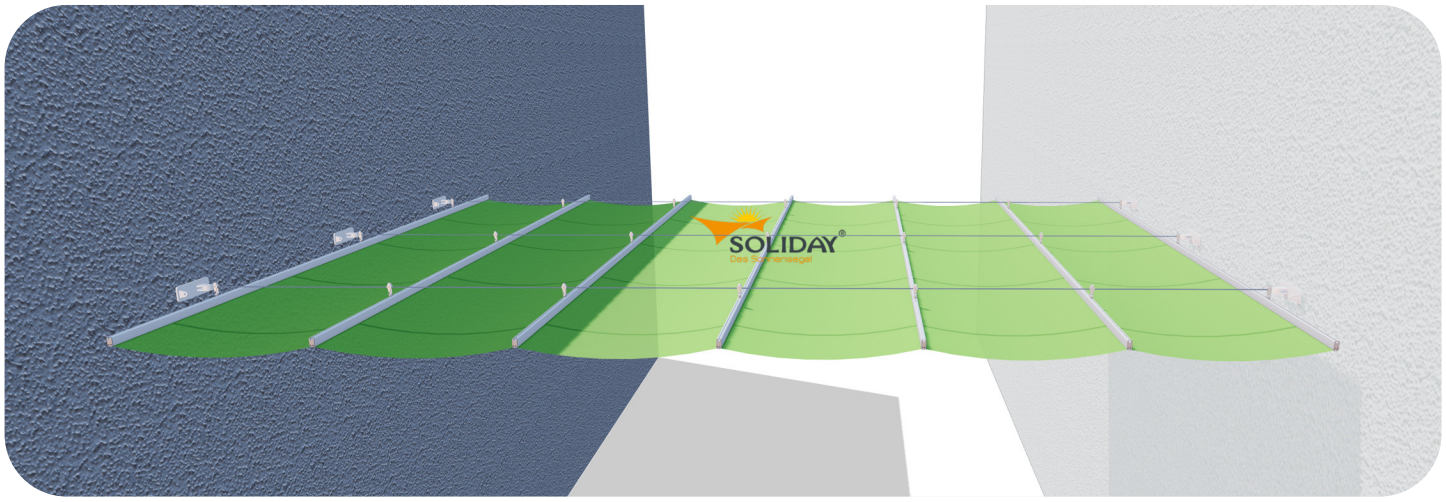
The system offers two variants of the wire rope mounting set for installation:

- **„To exact size":** This variant comes with pressed-on threads on both sides, ideal for precisely pre-planned installations.

- **„Rounded up":** With this option, one end of the wire rope is provided with a pressed-on thread, while the other end is equipped with a screwable thread that can be assembled on site. This allows adjustments to be made directly at the installation site, even under difficult conditions.

❶ 4mm wire rope
❷ 90° bend
❸ Pressed-on thread or screw-on thread
❹ Hexagon nut for tensioning
❺ Lock nut for securing





A key aspect of planning and installation is the parallelism of the wire rope guides. To ensure even load distribution and optimum functionality of the RAFF sunsail, the wire rope guides should be no more than 2 meters apart and aligned parallel to each other. The maximum length of the RAFF system is determined by the shortest measured length between the opposite wall plates of the wire rope guides (clear length).

Calculation of package dimensions Standard & Raincut

Definition of package height & package length

Package height: The total height of the closed system including the suspension.

Package length: The total length of the closed system excluding the guide rail or wire rope guide.

Package height Standard

Formula:
Package height = Field width (f) / 2 + Suspension height

Example
Package height = f/2 + 88,5 mm
454 mm / 2 + 88,5 = 317 mm

Package height Raincut

The height of the Raincut package depends on the RAFF width. The higher the width of the RAFF sunsail, the higher the package, but only on one side with water drainage;

the height increases by 10 mm per meter!

Example:
Raff width: 3500 mm
Field width: 421 mm

421 / 2 + 88,5 = 299 mm (Package height 1)

3500 / 100 = 35 + 299 (Package height 1) = 334 mm (Package height 2)

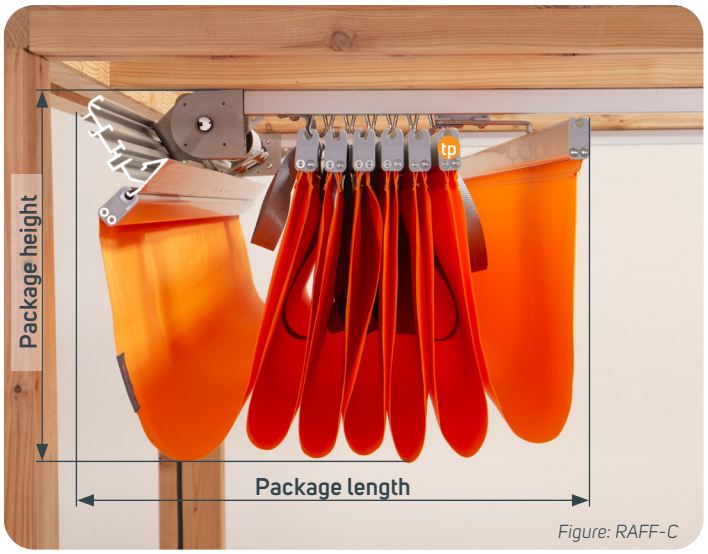


Figure: RAFF-C

Package view

Package length RAFF-C

(n) = Number of cloth profiles (tp)

Extension length < 6 m:
Formular: ((n) - 2) * 22mm + 305mm = Package length in mm

Extension length > 6 m:
Formular: ((n) -2) * 22mm + 360mm = Package length in mm

Package length RAFF-M

Extension length < 6 m:
Formular: (n) * 22 + 50mm = Package length

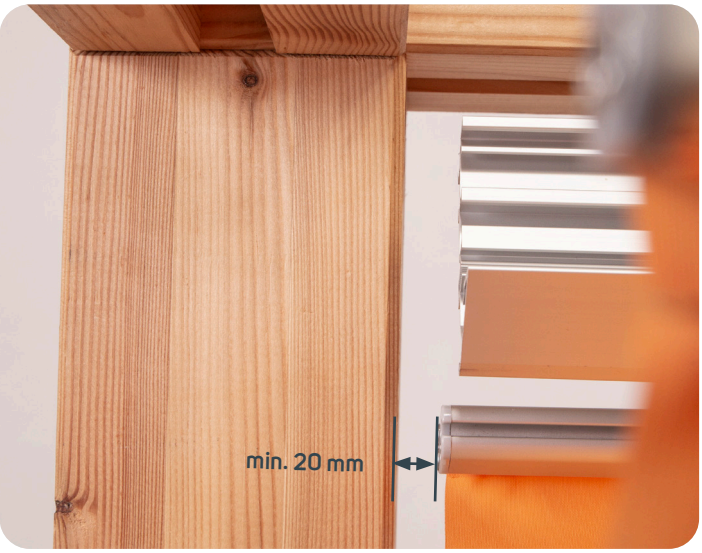
Raff canopy

We strongly recommend protecting the parked RAFF sunsail (when retracted) with a permanent canopy. The use of materials such as sheet metal, glass or other weatherproof alternatives ensures that the sail is effectively protected from the weather and its service life is significantly extended.

Planning a RAFF system

When planning, it is important to consider whether the RAFF system is to be installed outdoors (outdoor) or in a protected area (indoor). In a protected environment, the distance between the guide rails or the guide wire rope as well as the overhang can be designed more generously.

40 mm should be deducted (20 mm per side) if the RAFF system is installed inside beams, rafters or walls. This allows sufficient space between the cloth profile and the beams, rafters or walls.



WHEN PLANNING IN THE APP, THE OVERHANG MUST ALWAYS BE SET ACCORDING TO THE ACTUAL INSTALLATION! If this is not observed, it is possible that the distances between the guide rails during installation are greater than the maximum specified guide rail distance.

Confection - Field width

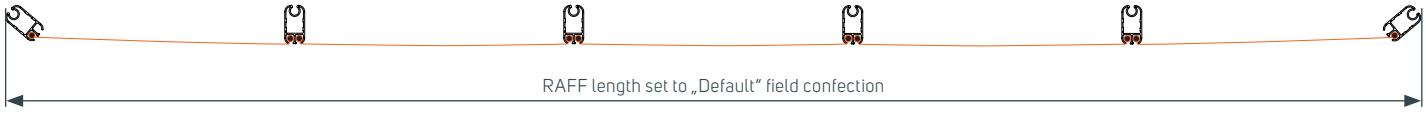
We endeavor to work in a resource-saving manner in order to avoid waste as far as possible when making up the raff fields. The width of the fields therefore depends on the width of the raw material (fabric rolls), which can vary depending on the material and color.

Maximum

Sailcloths are cut to size with optimized waste up to 800 mm with the smallest number of cloth profiles..

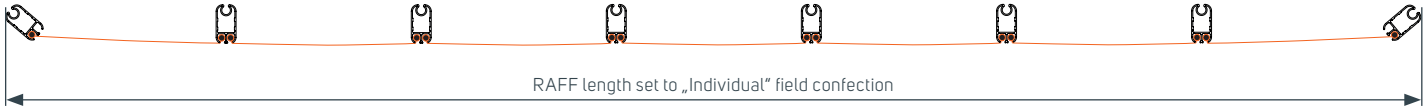
Default

Sailcloths are cut to optimize waste in line with a low package height.



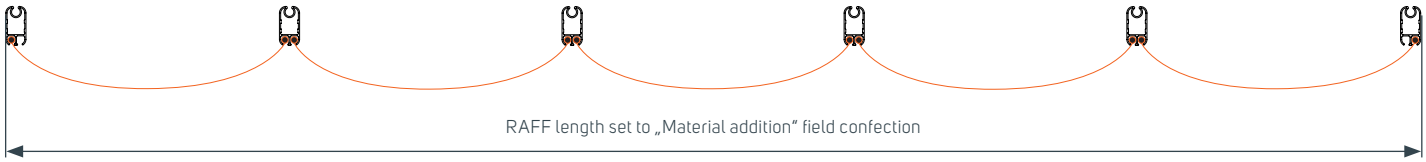
Individual

The number of fields can be increased individually within the waste-optimized sizes, resulting in smaller field widths and a higher number of cloth profiles. This can be useful if you are restricted by the package height. If the field width is reduced, the package height is also reduced, but the package length increases due to the additional cloth profiles.

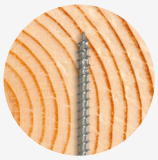
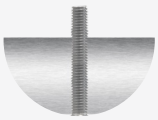
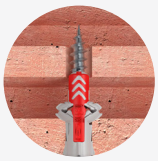
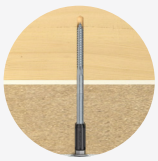


Material addition

In order to increase the effect of cloud formation in the RAFF sail, it is possible to loosen the overall fabric tension in the sail by adding 0-30% cloth within the sizes optimized for cutting. This addition of material increases the effective length of the gathered shade by this value and leads to a slight, regular cloud formation in the sail over the area to be shaded.



Attaching the guide rail to different surfaces

	**Wood**: 4 x 40 mm countersunk head screw A4 (ex.: Würth Assy)
	**Metal**: M4 x countersunk head screw stainless steel A2/A4 (Use high-strength threadlocker)
	**Concrete**: Ø 6 mm dowel + 4 x 40 mm countersunk head screw
	**Brick:** Ø 6 mm dowel + 4 x 40 mm countersunk head screw
	**Sand-lime brick / cellular concrete**: Ø 6 mm dowel + 4 x 60 mm countersunk head screw
	**Brick thermal insulation composite system**: Stand-off installation system (ex.: Fischer Thermax Stand-off installation 8)
	**Wood thermal insulation composite system**: Stand-off installation system (Bsp.: Fischer Thermax Stand-off installation 8)

Checking the pergola construction

It is important to carefully check the construction on which the RAFF system will be installed before planning in order to avoid mistakes during installation. There are some important points that should be taken into account:

- **Diagonals**: It is advisable to check the diagonals of the pergola or construction on which the RAFF system will be installed. An equal length of the diagonals ensures correct alignment of the system.
- **Parallelism**: It is necessary that the guide rails or wire rope guides of the RAFF system run parallel to each other. This aspect is extremely important during installation.

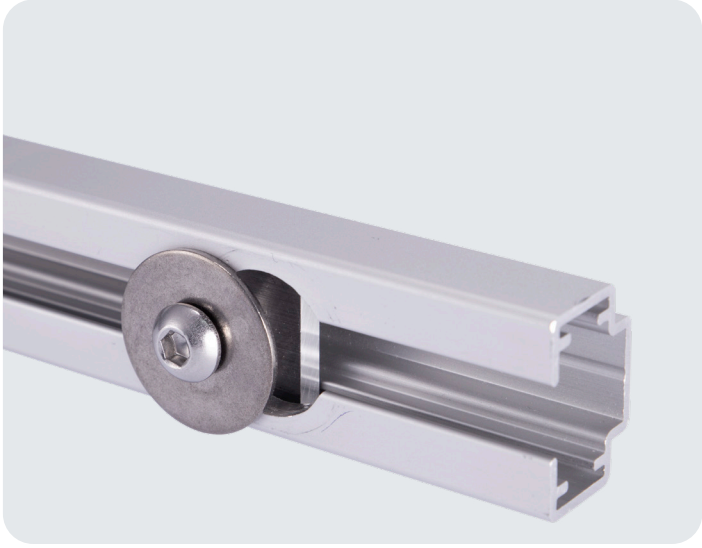
By paying attention to these points before and during installation, you can ensure that the RAFF system works properly and achieves optimal results.

Notch

The „notch" option is automatically selected as standard in the RAFF-M configuration with guide rail. This notch makes it possible to mount the guide rail flush, allowing the glide rollers to be easily inserted through the notch.

the RAFF-C configuration, however, the notch is included as standard.

If the notch is not selected, a minimum clearance of 30mm must be maintained or the rail opening must remain completely free.

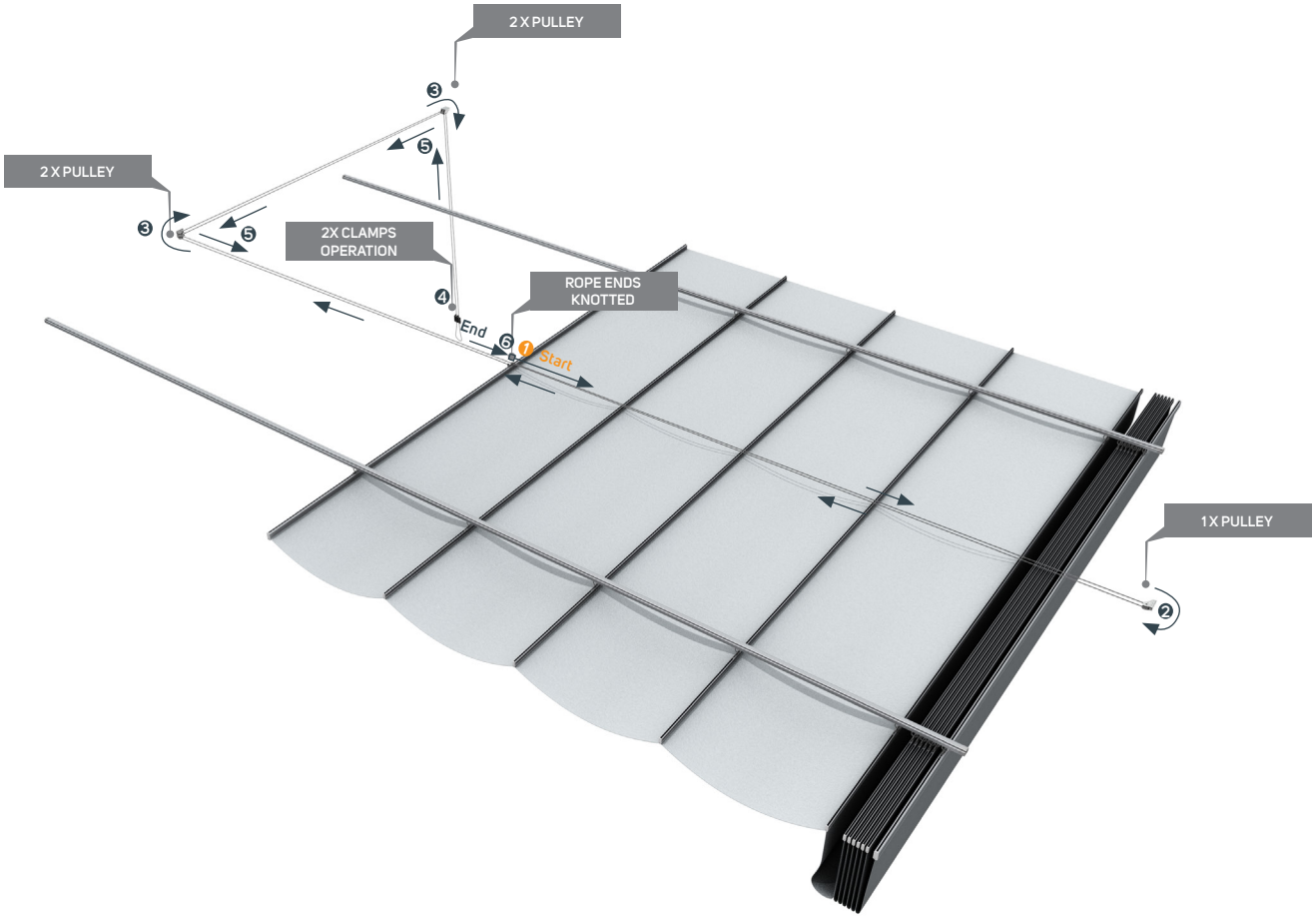


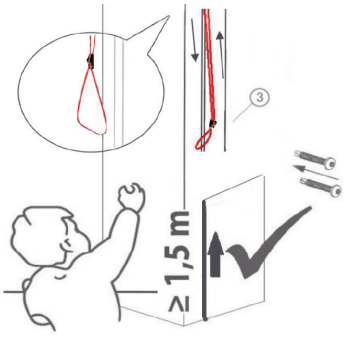
Notch

Pulley System

The pulley system is the simplest and safest method of opening and closing a RAFF-M. When planning, it is helpful to know where the operating point is located and how the pulley system will run. The rope run basically always follows the same pattern:

1. One end of the rope is attached to the first profile.
2. The other end is guided to the last profile and guided in the direction of pull-out by a guide pulley.
3. Another pulley is used to guide the rope to the desired operating point and then downwards.
4. A loop is formed at a height of at least 1.5 m and secured with two clamps.
5. The loose end of the rope is guided back to the first cloth profile using two further pulleys.
6. The loose end of the rope is also attached to the first cloth profile.





Mounting safety device endless rope holder

WARNING

Children, especially small children, can get caught and strangled in the loops of cords or chains and internal cords for operating the equipment. There is a risk that they will wrap cords or chains around their necks. To avoid this, keep the cords or chains out of the reach of children.

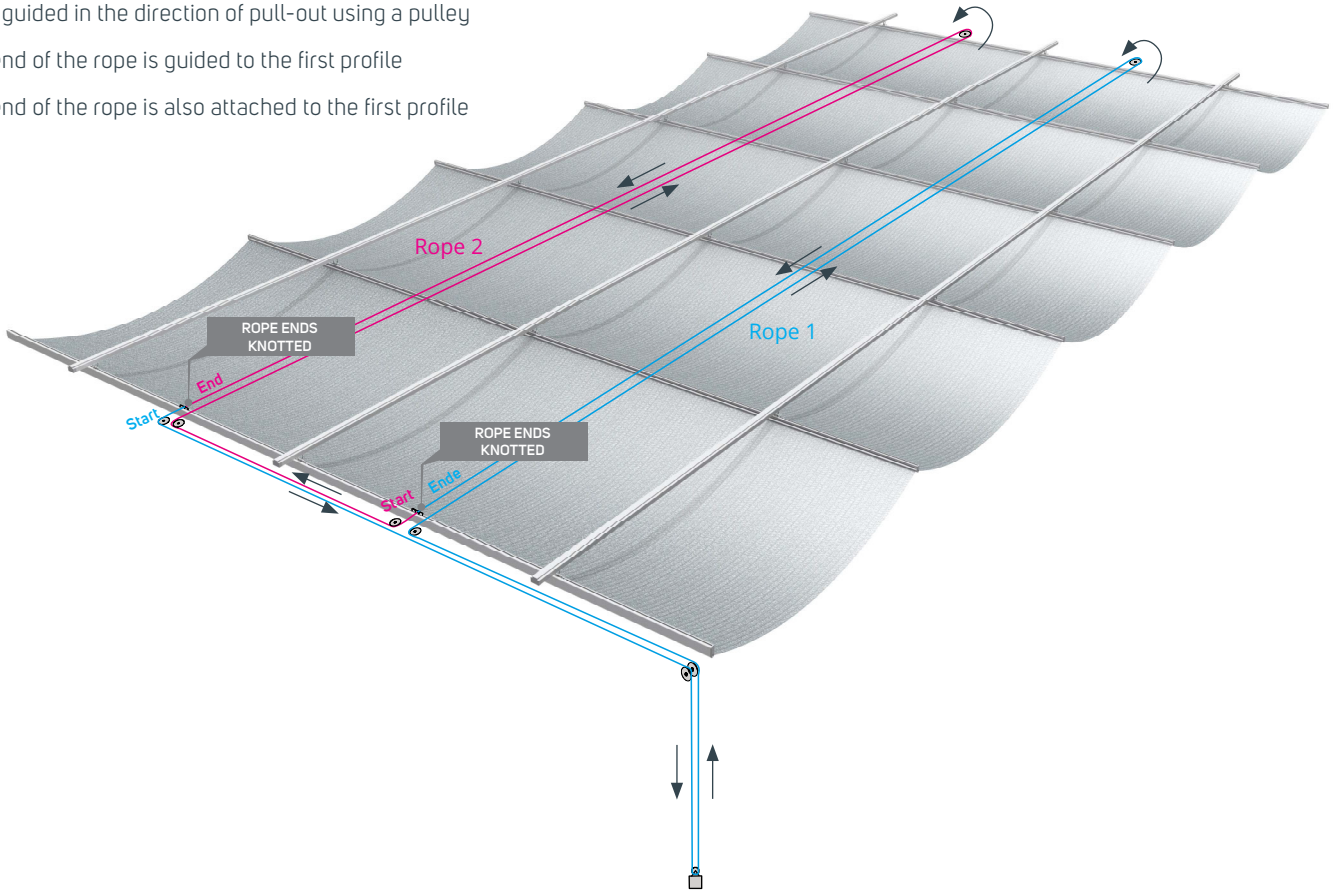
Beds and furnishings should not be near the cords or chains.

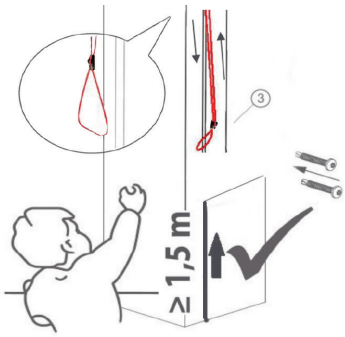
Before use, also observe the safety and operating instructions in the assembly and operating instructions.

Double pulley system

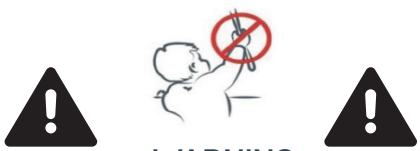
The double pulley system is used for very wide systems so that opening and closing is performed evenly across the width. When planning, it is helpful to know where the operating point is located and how the pulley system will run. The rope run basically always follows the same pattern:

1. One end of the rope 1 is attached to the first profile on one side
2. A pulley is used to guide the rope to the desired operating point and then downwards
3. A loop is formed at a height of at least 1.5 m and secured with two clamps
4. The other end is guided further to the other side of the profile and to the last profile
5. The rope is guided in the direction of pull-out using a pulley
6. The loose end of the rope is guided to the first profile
7. The loose end of the rope is also attached to the first profile
8. One end of rope 2 is attached to the first profile on the other side of „End“ rope 1
9. Guide the rope over two pulleys to the other side and to the last profile
10. The rope is guided in the direction of pull-out using a pulley
11. The loose end of the rope is guided to the first profile
12. The loose end of the rope is also attached to the first profile





Mounting safety device endless rope holder



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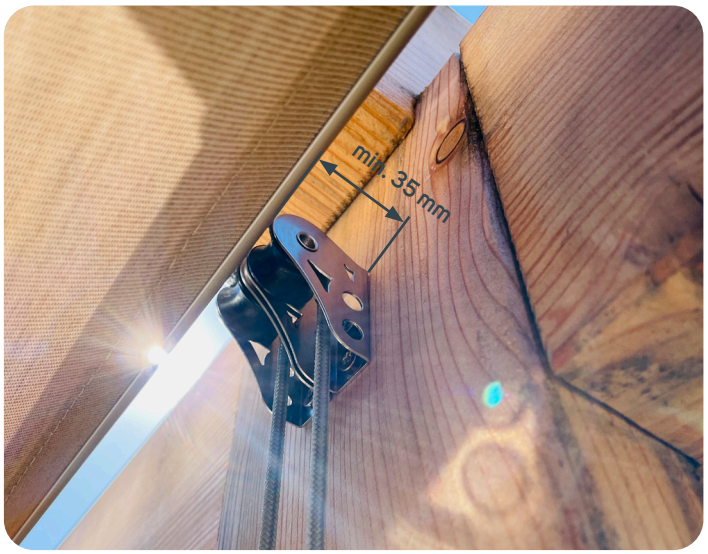
Beds and furnishings should not be near the cords or chains.

Before use, also observe the safety and operating instructions in the assembly and operating instructions.

Pulley size

If the pulleys of the pulley system are installed directly at the height of the cloth profiles, a space of 35 mm must be allowed for the pulley(s) and the Raff length of the pulley(s) must be reduced accordingly. This adjustment ensures that the Raff system is properly tensioned in the „Standard" cloth confection and that the pulley system operates smoothly.



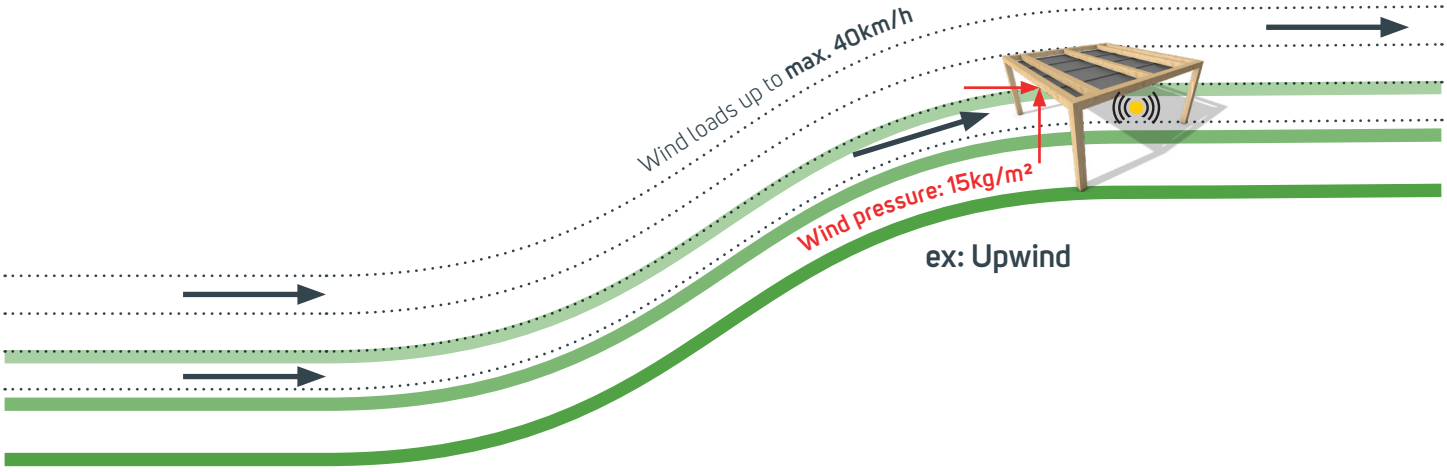
Wind loads

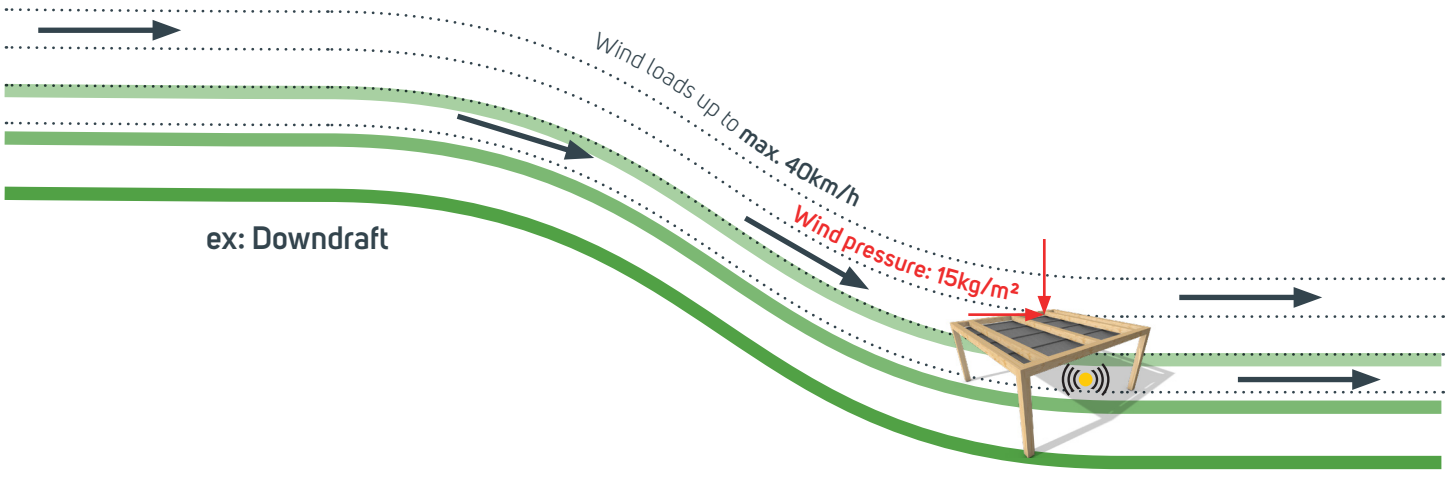
A SOLIDAY RAFF-M & RAFF-C are designed for wind loads up to max. 40km/h. In stronger winds, the system must be completely closed, otherwise damage may occur to the system, the sail cloth or the suspensions. In general, wind can lead to noise.

Based on a reference system in Schwanenstadt (Austria) in dry air at 20°C, the wind pressure on a Raff sunsail was determined to be 15kg/m² at a maximum wind speed of 40km/h. It is important to emphasize that this value is not considered statically proven, as environmental influences can vary depending on the location and influence the forces that occur.

In exposed locations, high suction/up/down winds in excess of 40 km/h can also lead to damage to the system or sailcloth. It is therefore essential to take into account local wind patterns, which depend on the geographical location, topography and surrounding structures. These factors can influence the intensity and direction of the winds, causing additional stress on the SOLIDAY Raff system.

It would be helpful to consider the specific wind and environmental conditions in order to create good conditions for the installation. This includes taking into account the calculated wind pressure of the entire system in order to adjust the fixing of the guides and the choice of suitable fixing material accordingly. Such a customized approach ensures that the sunsail has maximum performance and longevity even under variable wind conditions.





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Technical changes reserved.

THE ART OF SHADE