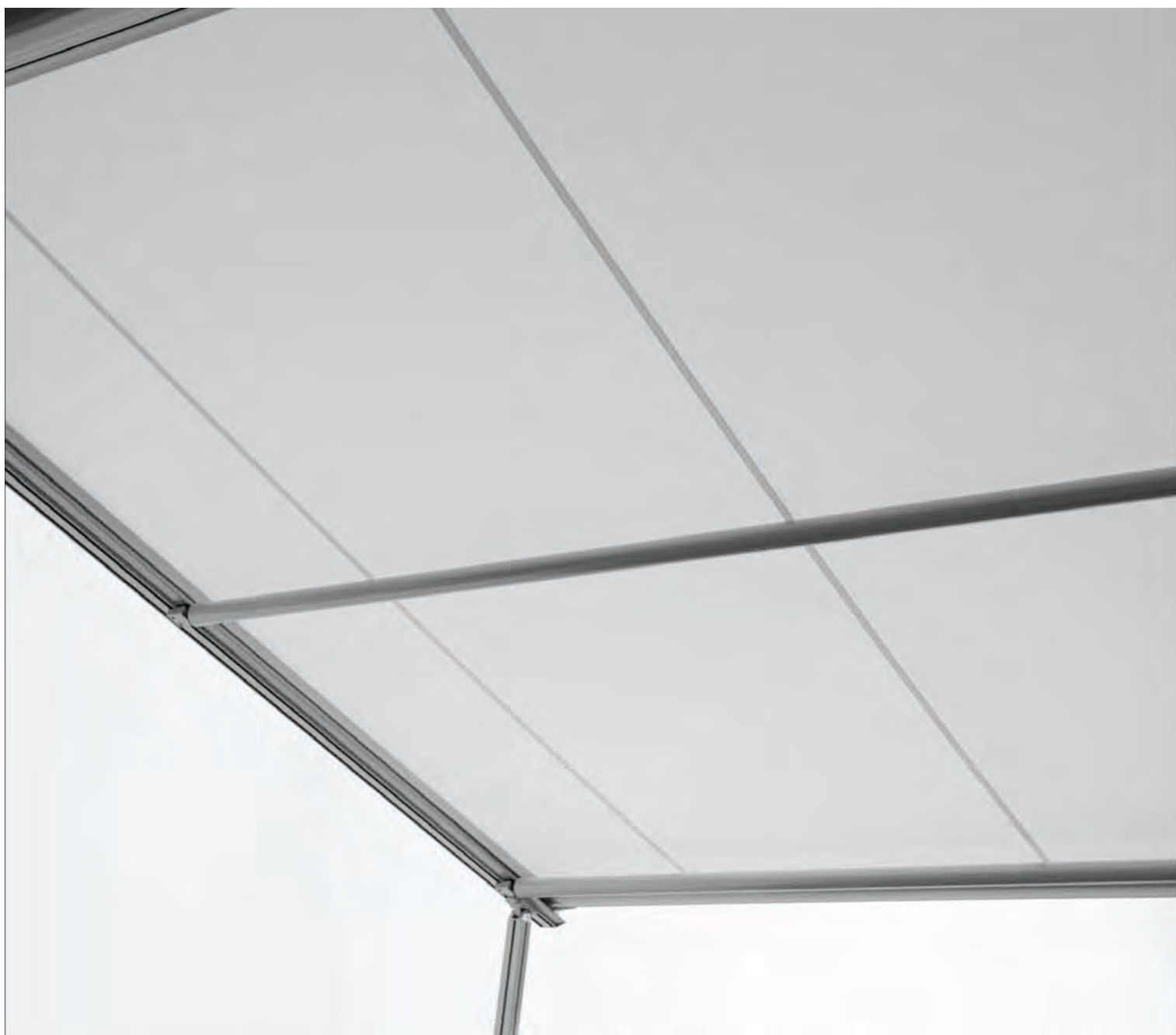


INSTALLATION INSTRUCTIONS

VARIO-PERGOLA
self supporting sunroof



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1. SAFETY NOTES, WARNINGS AND MOUNTING INFORMATION

1.1 EXPLANATION OF THE SAFETY NOTES

Safety notes and important information are integrated in the text as appropriate. The following symbols are used to alert the reader/user of the instructions.



This symbol means that the relevant note is important for the safety of persons or for the function of the awning.



This symbol highlights important product information for the installation engineer or user.

1.2 GENERAL SAFETY INFORMATION



Only qualified and duly specialised companies or trained specialist personnel may be permitted to mount the awning.



Always observe the information and notes in the installation and operation instructions. A failure to observe the relevant information will render the manufacturer's liability null and void.



The safety-at-work and accident prevention regulations specific to each country must be complied with. In particular, a person performing special work at height must be suitably secured. The notes on the product and its packaging must be observed

2. INSTALLATION

2.1 TOOLS, RESOURCES AND MATERIALS

- Measuring tape 10m
- (Percussion) drilling machine
- Cordless screwdriver
- Drill bits, suitable for the drilling substrate and the mounting pieces
- SW 4, SW 5; SW 6 and SW 8 Allen keys
- Torx bit Tx 25
- Ratchet with extension and sockets, respectively ring spanners SW 13 and SW 17
- Steel drill bits, diameter 4.5mm and 5.5mm
- Spirit level and string for alignment of the brackets
- Test cable, resp. adjustment set (for initial operation)
- Aluminium chop saw to shorten the posts

2.2. PREPARING THE INSTALLATION



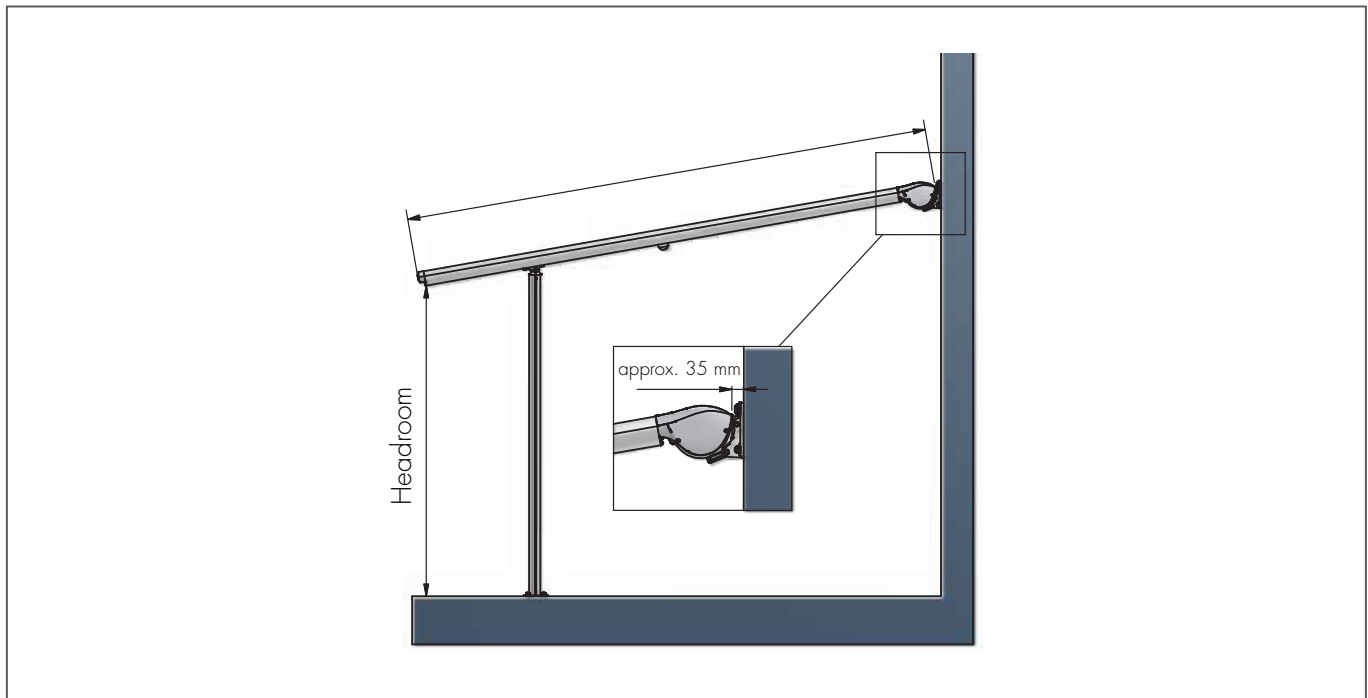
Secure the installation zone (the secured zone must be at least equivalent to the size of the fully deployed awning). If the awning is hoisted to higher installation positions with ropes, the awning must be removed from the packaging. When attaching the hoisting ropes, ensure that the awning is properly fastened, but not damaged. Hoist the awning exclusively in horizontal position and evenly.



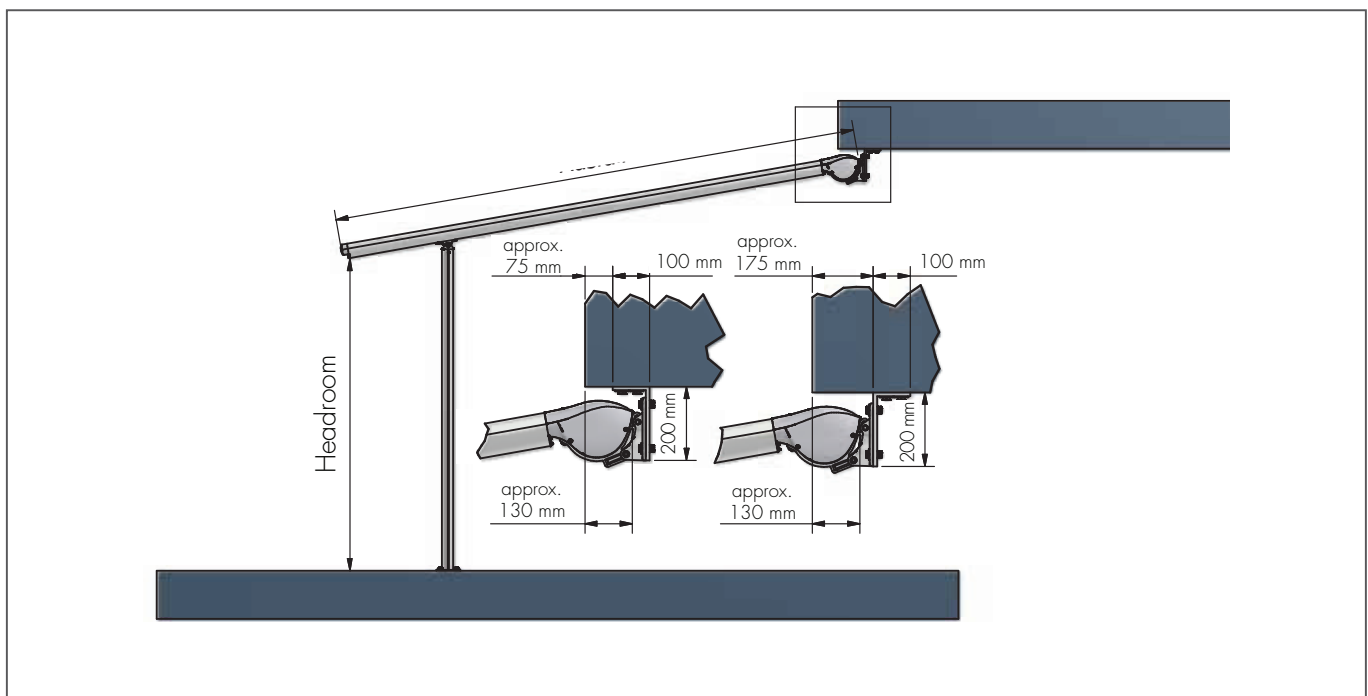
If the information above is not observed, the awning system may fall down and put the health of persons at risk!

2.3. MOUNTING SITUATIONS

Wall installation of VARIO PERGOLA



Ceiling installation of VARIO PERGOLA with angle towards the back or towards the front

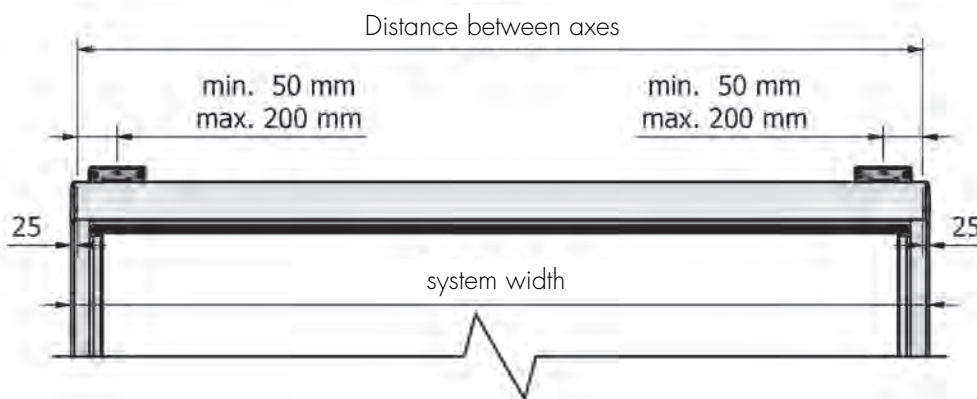


2.4. MOUNTING HEIGHT AND POSITION OF THE BRACKETS



Mounting height: The awning can produce crushing forces and shear stresses, for instance between the fall bar and the distance tube or casing and at the rollers of the moving fall bar. To protect human safety, the mounting height must be at least 2,50m. If the situation requires a mounting height less than the stated minimum height, the awning must be operated exclusively with a switch mounted at a location from where the moving parts can be observed.

Position of the brackets:

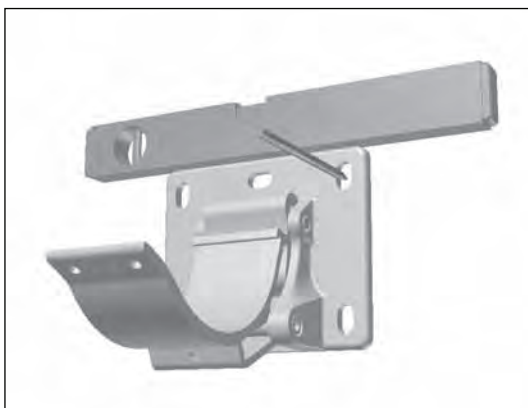


Do not exceed the maximum fixing positions of the brackets! This could lead to damages to, respectively malfunctions of, the awning.

Drilling holes for the brackets: Transfer the drilling outlines of the brackets to the determined bracket positions.



Select the appropriate drill bit for the respective base material and mounting method.



2.5. MOUNTING TECHNIQUE

Bracket mounting

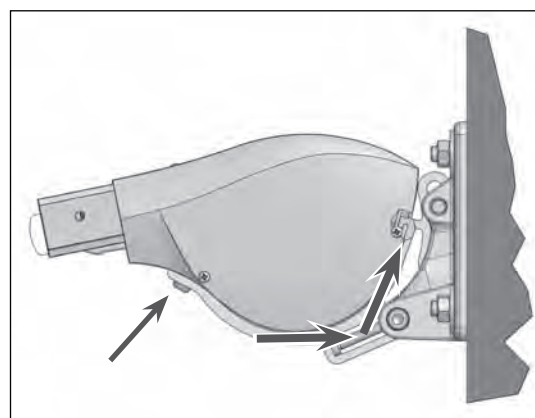
Loosely fasten all brackets and achieve true alignment. Even out irregularities of the base by using suitable spacers. Then tighten all screws and check that brackets are firmly attached.

2.6. MOUNTING THE CASING

- ① Ensure that sufficient personnel is available to lift the awning.

At first ensure that both brackets have the same inclination. Then hook up the awning (slightly tilted upwards) in the rear locking element of the bracket and lower it down. Secure the casing with round head screws and the square nuts inserted in the front clamping channel of the casing.

- ① If the installation is made with ceiling angles, the brackets must be tilted to hook up the box.



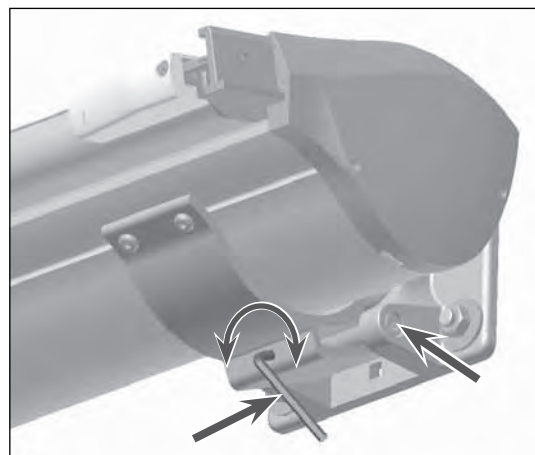
Pre-adjusting the inclination:

- Loosen the two side screws of the brackets with SW 8 Allen key.
- Adjust the inclination by turning the screw in the pivoting part with SW 6 Allen key.

To lower the awning → turn clockwise

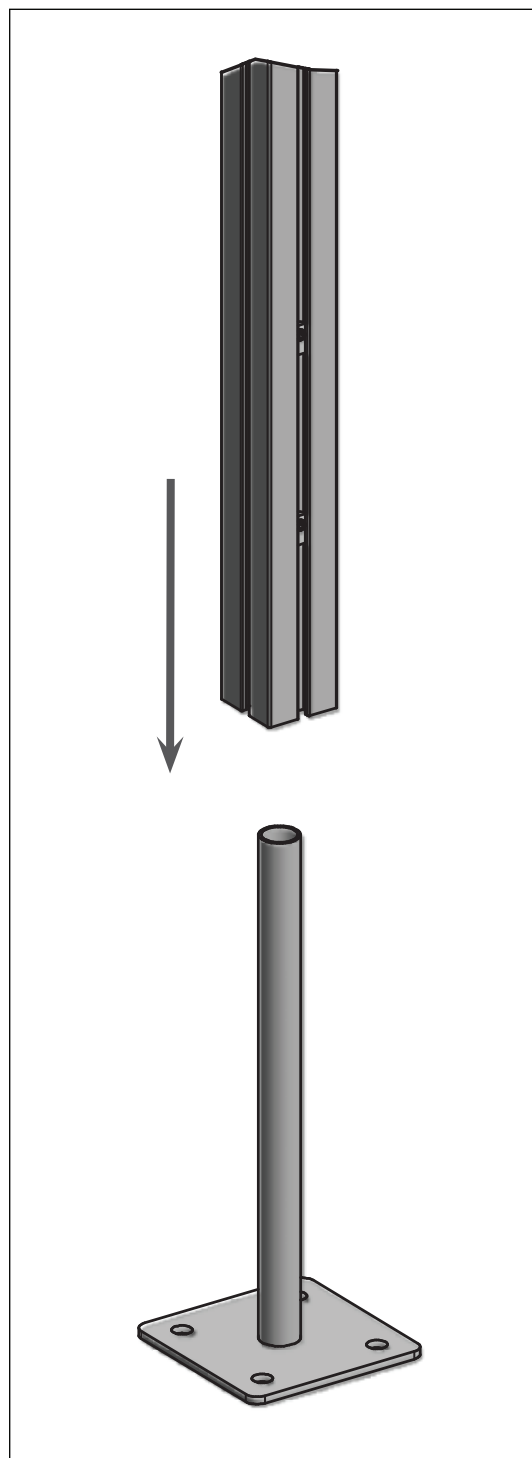
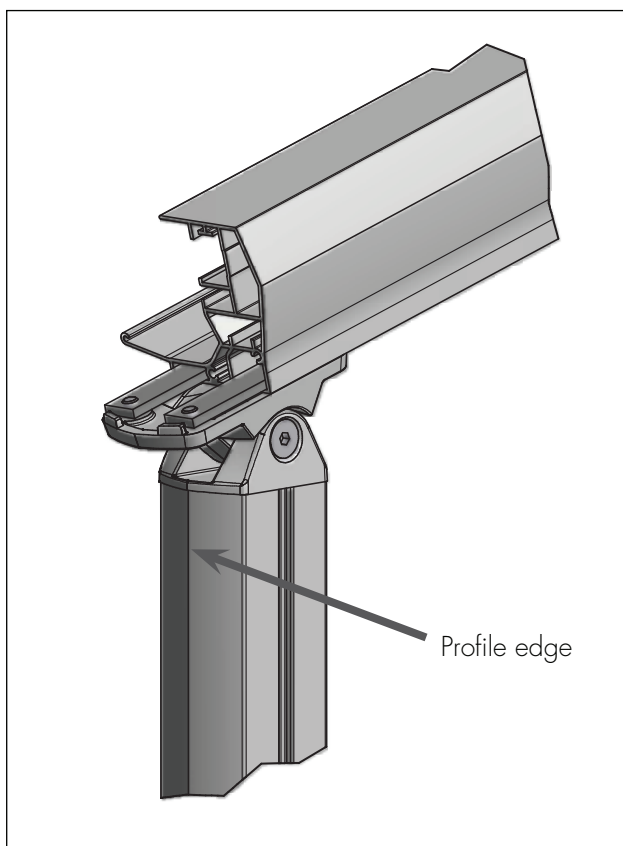
To raise the awning → turn counter-clockwise

- If the inclination is corrected significantly, adjust the brackets alternately.



2.7. MOUNTING RAILS AND POSTS

- If necessary, adjust the height of the posts to the situation on site. For this purpose, shorten the post profile on the side opposite the pivot.
- Demount the cover of the guiding rail.
- Insert the pivoting bearing with the clamping plates in the guiding rail. Ensure that the acute side of the post profile points forward. If required, slightly fix the pivot.
- Insert the post profile with the pivoting bearing into the base plate.
- Re-install the cover of the guiding rail.



- Attach the guide rails to the pegs of the casing end caps. Ensure that the end with the sink hole bore points to the pegs!

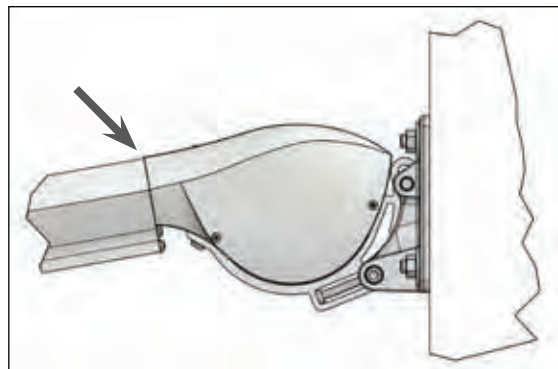
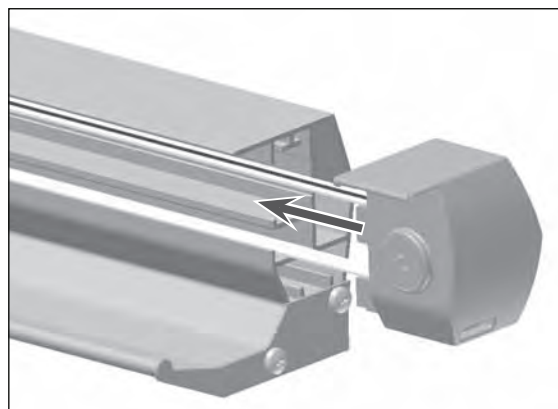
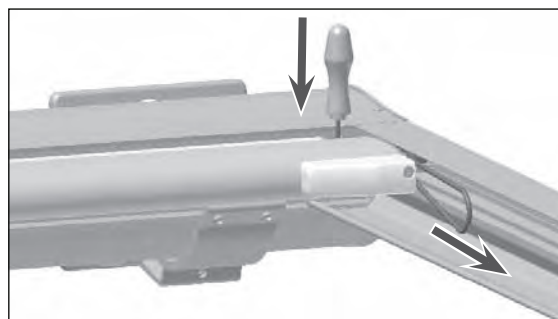
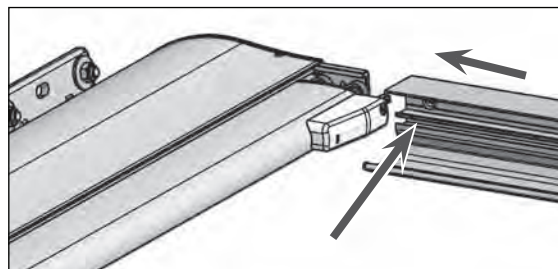


- Do not move the guide rail too much to the side and up because the peg could be torn off due to the lever effect!
- Using the cord, pull the fall bar on one side approximately 100 mm in extended direction and insert a screwdriver or other suitable tool between the fall bar and the casing to prevent the fall bar from retracting. Repeat the procedure on the second side.

- Unwind pulling strap from the end cover of the guide rail and ensure that it is not twisted. Remove the strap securing clips.



- Securing clips that are not removed can cause damages!
- Insert end caps in the guide rails (ensure the pulling strap is not twisted!) and hold in position.
- Pull the straps to exert slight tension on the fall bar, then remove the screwdriver, then let fall bar return to its home position. Check again that the pulling straps are not twisted or caught and that they also run over the deflection pulley in the casing end cap.
- Remove pulling cords for the fall bar. Adjust the inclination of the brackets (the gap between the guide rail and the casing end cap must be uniform)



2.8. MOUNTING THE DISTANCE TUBE(S):



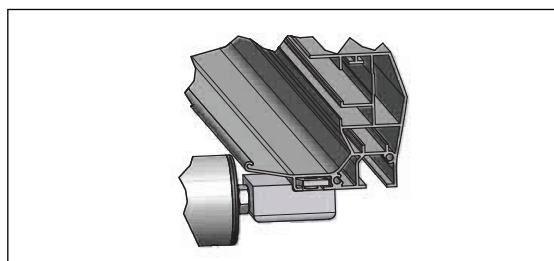
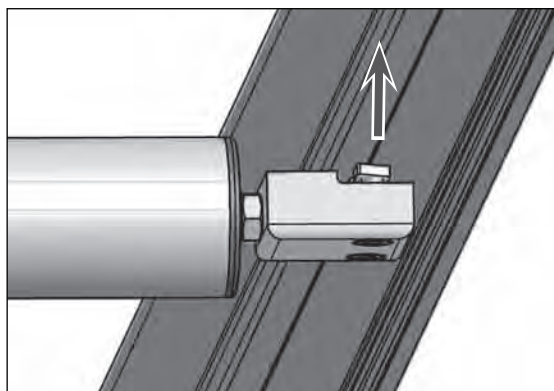
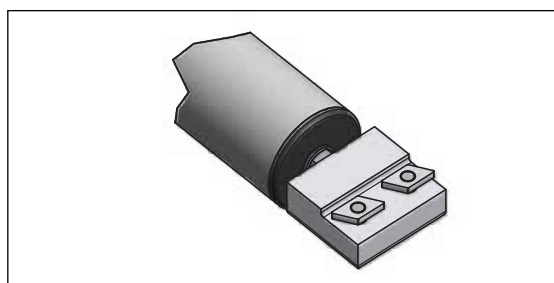
- To stabilise the parallelism of the system, mount at least one distance tube before aligning the system at the post.
- Insert the washer and turn the distance tube holder into the end cap of the distance tube until it is fully in.
- Align the tightening surfaces of both holders.
- Secure the holders in the guide rails with screws and hammerhead threaded plates.



- The writing on the hammerhead threaded plates must point towards the surface of the holder.
- The position depends on the extended length of the system. Up to an extended length of 3500mm near the posts, from 3501mm extended length distributed evenly over the length of the guide rails. The position of the distance tubes can also be adjusted to the cross seams of the fabric.
- Distribute additional distance tubes over the length of the guide rails.

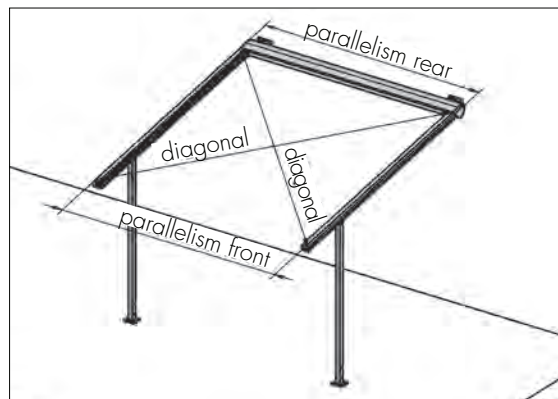


- To fasten the distance tube holders, push the screws with the hammerhead threaded plates up and twist (as described in 2.8.). Ensure that the hammerhead threaded plates have twisted correctly in the installation channel.
- After tightening, the longer diagonal must be crosswise to the clamping channel of the guide rail (see drawing next to the text).
- Lock the nuts against the end caps of the distance tube.

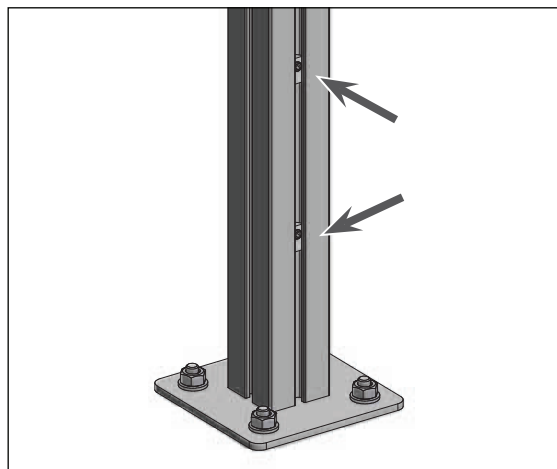


2.9. ALIGNMENT OF THE SYSTEM

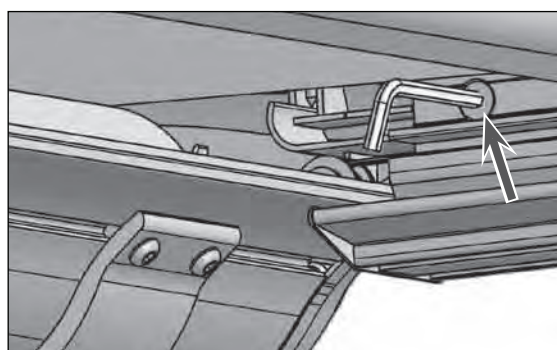
- Align the system by moving the casing in the brackets or sideways movement of the two posts in the diagonal.
- Deviations of the diagonal measurements by more than 5 mm may result in malfunctions.
- Vertically align the posts



- Fix the post profile on the post's base plate.
- For this purpose, turn the threaded pins in the groove nuts through the drillings onto the peg of the post's base plate and tighten firmly.
- Fix the post's base plate with the appropriate fixing materials on the base.



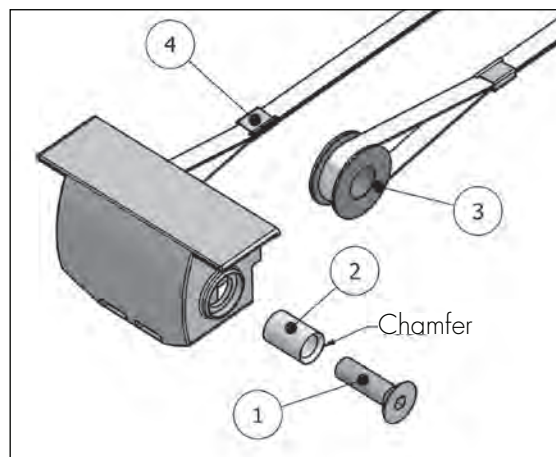
- Connect a test cable to the system and extend approximately 20cm.
- Connect the guide rails with the pegs of the casing using the countersunk screws.



3. LINE SYSTEMS



- To install line systems, at first mount all boxes and only then proceed with the guide rails and posts as described for the individual systems.
- Before inserting the end cap of the centre guide rail as described in 2.8, it is necessary to fit the second pulling strap with the pulley.
- For the installation, pull the fall bar of both systems on the side of the centre guide rail approximately 100mm in extended direction with the pulling strap, and then insert a screwdriver between the fall bar and the casing to prevent the fall bar from retracting.
- At the end cap of the centre guide rail, loosen countersunk screw (1) with an SW 6 Allen key and remove including the interior sleeve (2). Take out the deflection pulley (3) and place pulling strap over it.
- Place the pulley with the pulling strap in the end cap (ensuring that the pulling strap is not twisted!). Insert the sleeve with the chamfer of the bore pointing towards the screw head. Firmly tighten the countersunk screw.
- Now remove the strap securing clips (4) and proceed according to 2.8.



4. INITIAL OPERATION



Before the initial operation of the awning, remove all objects (e.g. ladders, tools etc.) from the full travel range (in/out) of the awning and from underneath the awning. During the trial operation, ensure that nobody is in this area – there is a risk of injury in case of a malfunction.



For trial operation, always use the test cable (no automatic control units etc.). In addition, the operator must be able to see the awning. If the test cable has not yet been connected, connect to the cable of the driving gear.

Fully extend awning and check switch-off point.



Electrical installation work and connections to the mains must be carried out exclusively by a licensed electrical company.

5. DISMOUNTING THE AWNING



- Ensure that the area around the awning is free of unauthorised personnel.
- Dismount the awning exclusively in retracted condition.
- Dismounting of the awning is the reverse of the mounting procedure.

6. TROUBLESHOOTING

TYPE OF DEFECT	CAUSE	REMEDY
Driving gear does not work	No power	Check connection (specialised company)
	Driving gear not correctly connected	Check connection (specialised company)
	Thermal protection of the driving gear activated	Wait for 15-20 mins, then operate again
	Remote control batteries empty	Check light signal on sending unit, replace batteries
	Higher-level control unit prevents manual operation	Wait until higher-level signal is not activated any more.
Driving gear does not work	End positions of the driving gear changed, or incorrect end position setting	Reset or re-program end positions (see Driving Gear Instruction Manual)
System does not close on one side	Thickness of the tapes differs	In retracted condition, apply textile tape backing to the pulley on the side on which the system does not retract sufficiently. Extend system and achieve parallel fall bar alignment.
Awning fabric sags unevenly	Not the same number of windings on the pulley	Check number of strap windings on the pulley and equalise.
	Fall bar parallelism changed or incorrectly adjusted.	Reset fall bar parallelism (see Annex)
When operated, system moves by jerks and jolts or generates indefinable noises	Rail parallelism or rectangularity changed	Reset rail parallelism or rectangularity (see item 2.9.)
	Foreign bodies or lots of dirt in the channels of the guiding rails	Clean guiding rails and spray lubricant on the rollers of the fall bar

7. ANNEX

7.1. ALIGNMENT OF THE FALL BAR

Measure the distance between the fall bar and the rail end on both sides.

The correction is made on the side that extends further. Remove countersunk screw (1) with SW 4mm Allen key and take off plastic cover (2). Get hold of the end of the strap (5) with your hand or a tool and do not let go. Loosen counternut (3) with SW13mm ring spanner. Loosen the threaded pin (4) with SW 4mm Allen key. Now give pulling strap enough rope so that the fall bar moves to the correct position. Then slightly tighten threaded pin (4) and lock with nut (3).

Wind up protruding tape and stow away in the cover. Fit cover and fasten with countersunk screw.

If the fall bar is parallel, the fabric tension should be roughly the same on either side.

