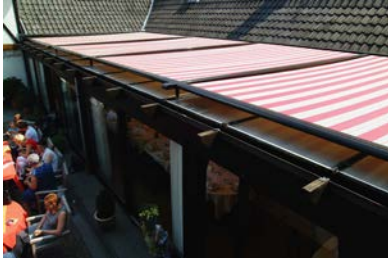


Solharo®

Solar protection for glass Conservatories and for Sun Rooms




The Solharo® is the ideal solar protection solution for sunrooms and conservatories. With a simple flick of a switch, the motorized shade will automatically extend to shade and lower the temperature in the room.

PRODUCT FEATURES:

- Protects against the sun and lowers the temperature in the sun room, significantly lowering cooling costs.
- The fabric blocks the sun before it hits the glass for more effective solar control.
- Prevents fading of your furniture, carpets, curtains, and wallpaper.
- Can cover small to large sun rooms
- Great for residential and commercial applications.
- Easy motorized operation standard
- Hundreds of fabric or mesh colors to choose from
- Seven standard frame colors
- Custom frame colors available

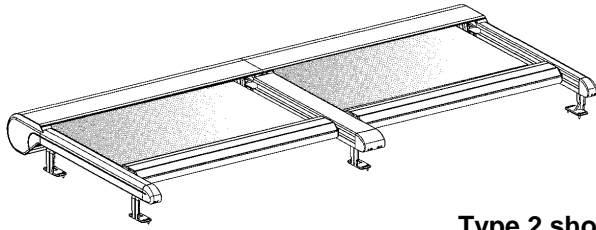


Awning Style	Type	Standard Frame Colors	Standard Widths	Standard Projections	Recommend Application	Recommend Fabrics to Use
	Solharo® Tensioned Track System	White, Desert Ivory, Mocha, Brown, Bronze, Grey, Black, Taupe, Forest Green	Through 27' See chart	5' through 19' 8" See Chart	Sun Rooms, Wood Structures	Para, Sunbrella, Dickson, Awntex, Soltis

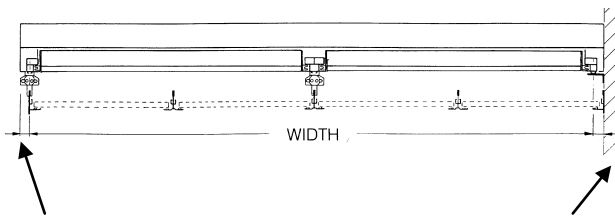
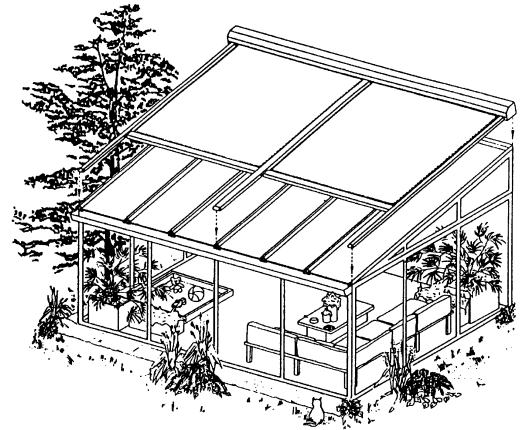
SUNAIR® AWNINGS & SCREENS
 ©2012 AWNINGS UNLIMITED INC.
 P.O. Box 1068 7785 Rt. 175,
 Jessup, MD 20794

JESSUP, MD 800 – 548 – 0408
PHOENIX, AZ 877 – 272 - 3920

MEASURING SOLHARO®



Type 2 shown



The cassette or end Tracks extends 1" beyond the center measurement of each track

MEASURING:

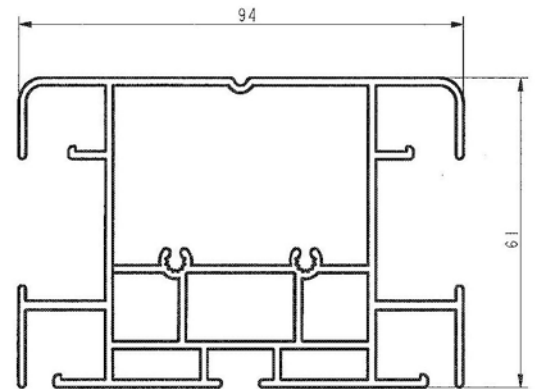
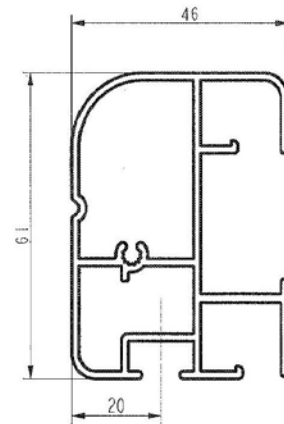
USING STANDARD & A TYPE BRACKETS:

The most important measurement is the measurement center to center of each beam of the structure. Supply a drawing showing each beam or truss system the Solharo will be attached to. The Solharo® will then be manufactured with the guides or tracks running center of the beams. From the center of the outside lateral guides the system extends 1" on each side (see drawing above). If multiple bays are required indicate where the center of each track needs to be. The bays can vary in size and it is not necessary to have each bay the same size. Consult the office if a bay is less than 6'7". The Solharo® system can not extend down and around the curve. For proper coverage extend the track 12" straight beyond curve of the sunroom.

USING B TYPE BRACKETS, OR B ON THE SIDE AND A TYPE BRACKETS IN MIDDLE:

Measure the same way, as using standard brackets except the center of the outer awning lateral guides have to be measured outside of each beam/conservatory profile rather than the center to accommodate side mounting of the B bracket. If you want to top mount any middle rafters, then use the A brackets and measure the center of any middle beams.

If you are only using B type brackets, then the center of the awning guides should be the outside of the beams of the structure (See technical data sheet).



The aluminum housing containing the roller system is 6 ½" inches high or 165 mm high with the brackets

Different mounting situations can be accommodated (see Technical sheet.)

SOLHARO®

1. GENERAL

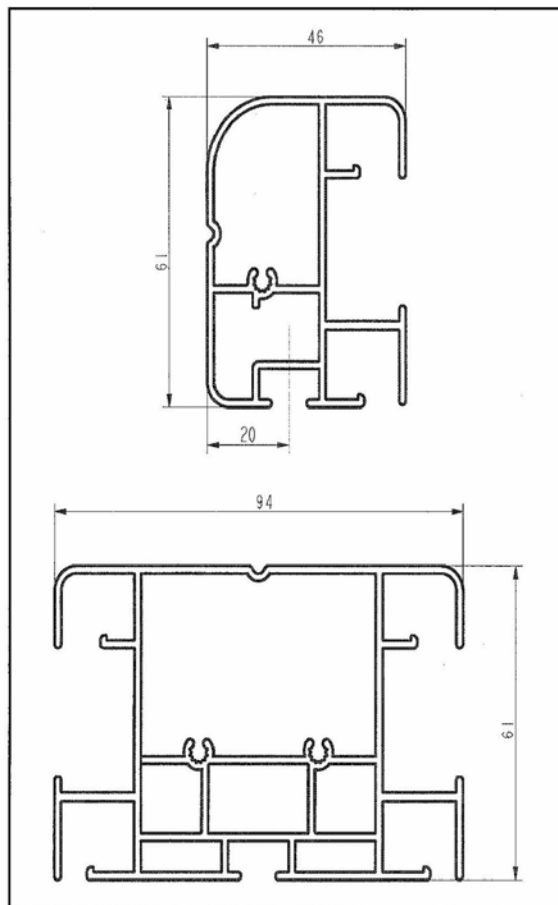
The SOLHARO® tensioned track system is specially designed for installation above a sunroom or wood trellis structure. The advantage of this type of installation is that the rays of the sun causing excessive warmth within the sunroom area are prevented from striking the glass.

The fabric is rolled up in a box frame attached to the guide bars, which are attached to the sunroom sections by means of brackets. There is an air space between the awning and the glass surface. The bracket system for attaching the guide bars to the roof section is designed for minor adjustment if needed.

2. THE PROFILES

2.1. Guides

- Material: extruded aluminum, Powder coated.
- Color: the standard colors are White, Sand, Forest Green, Silver, and brown.



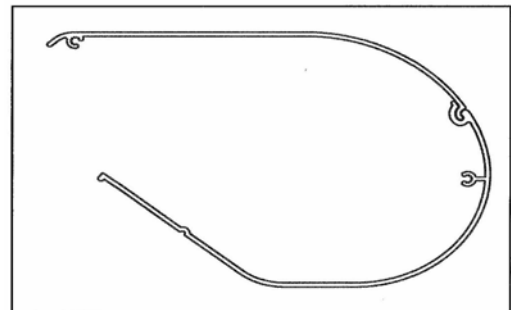
- Two types:
 - Lateral guides: installed laterally, with a guide bar slot on one side only.
 - Center guides: installed centrally, with a guide bar slot on either side. Minimum width per section is 6'7" wide
- The profiles have a hollow chamber into which the bracket support pins fit.
- Aluminum cover coated in the color of the frame.

2.2. The roller-tube

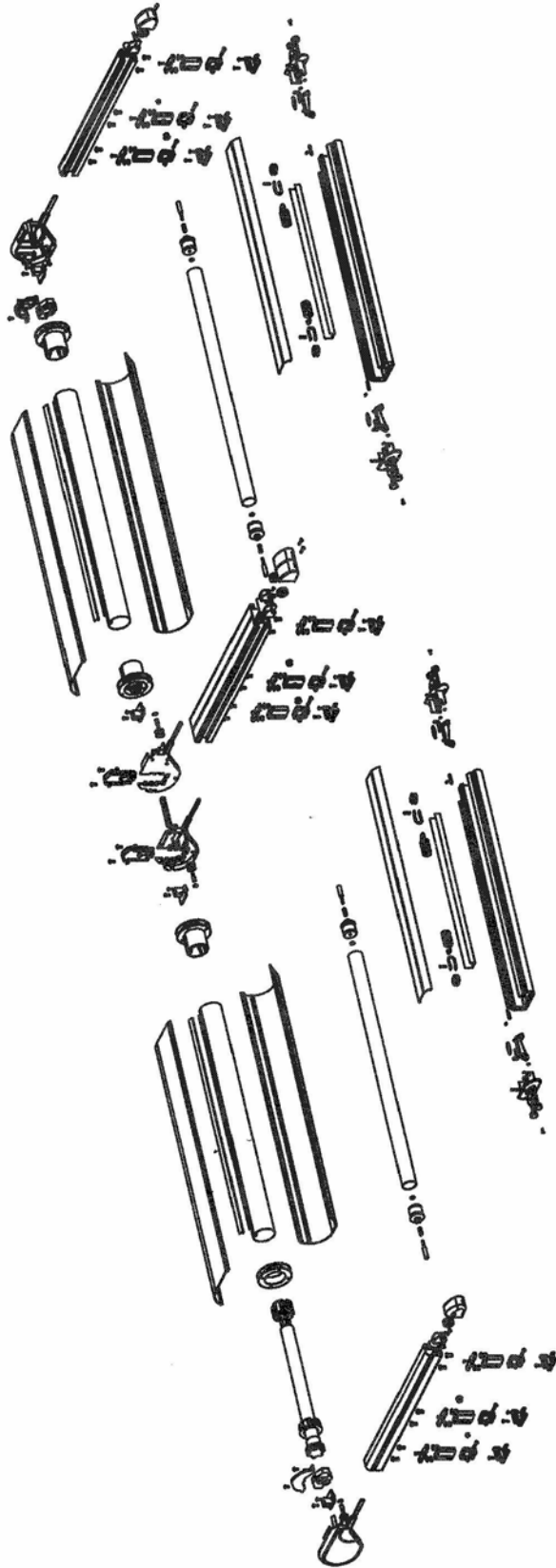
- Material: Either a galvanized steel tube, or aluminum as needed and provided with a groove for attaching the fabric.
- Function: rolling up and down the blind.
- Roller Tube Diameter: 78 mm

2.3. The box frame

- Material: extruded aluminum 2,5mm thick.
- Color: as standard .
- Dimension: 145mm x 215mm or 5 ¾" x 8 ½".
- Consists of two sections:
 - a removable upper section or cover
 - a fix lower section

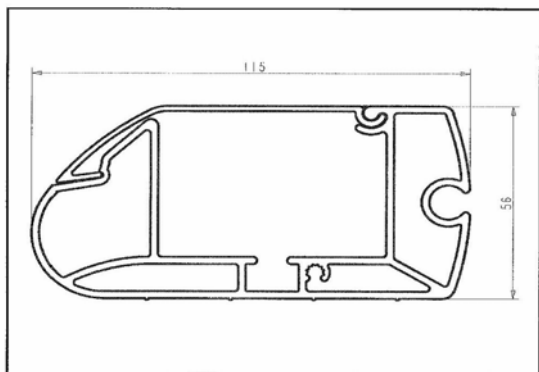


Exploded View



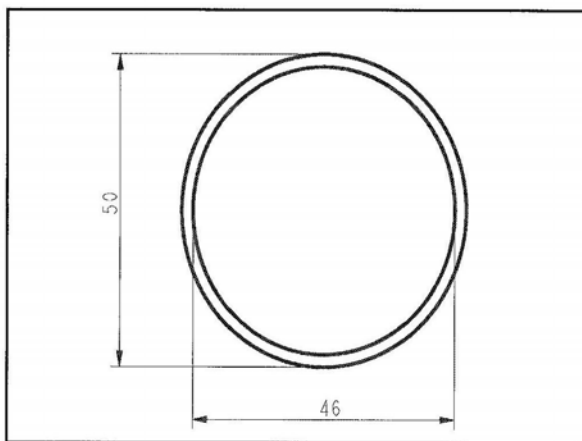
2.5 The Front Bar / end profile

- Material: extruded aluminum, powdercoated
- Colors: As standard
- Function:
 - The base: is provided with a slot for the attachment of the fabric.
 - The closed section: is clipped to the base.
 - This profile runs along the slots in the lateral guide bars.



2.4. Units with over 16'6" projection will need (OPTIONAL) intermediate roll(s)

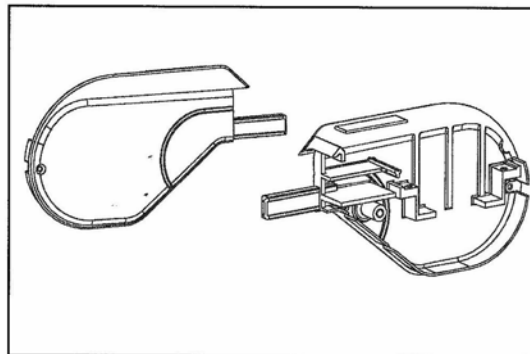
- Material: extruded aluminum tube 050mm x 2mm wall thickness, powdercoated.
- Function: supporting the fabric in case of larger extension.
 - Over 5001mm or 16'6" projection:
 - delivery of an intermediate roll (being installed in the middle of the extension height).
 - Extension smaller than 16'6" or 5001mm: Intermediate roll not necessary.



3. OTHER COMPONENTS

3.1. The Side consoles

- Material: Cast aluminum.
- Dimensions: 145 x 215mm or 5 3/4" x 8 1/2".



3.2. The carriages

- Material: Luran
- Color: as standard white, brown, and black.
- Function: connection of front bar and the guides, It has wheels that run along the slots in the lateral guide.

3.3. The tensing system

- Material: the castors, axles, etc. are made of non-corroding materials.
- Function: the entire awning and extension pole is kept under constant tension by means of a spring, a rope, and a 02,5mm cable.

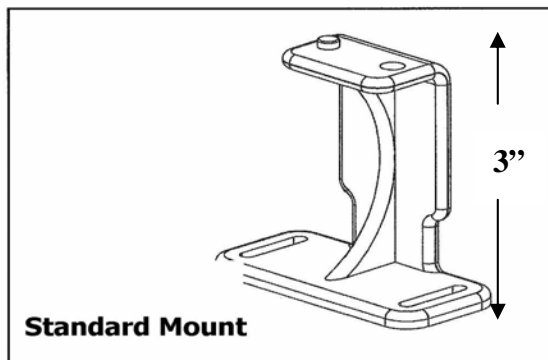
The awning remains tensed in any position, so that an adequate ventilation between the awning fabric and the glass cover is ensured.

3.4. Attachment of the side guides

Standard brackets included in the price **Std. 3" tall.**

Note: Measure center of track to center of track

- Bracket material: aluminum
- Color: coated in the color of the frame
- Function: used for any type of glass-covered sunroom or conservatory frameworks and for all wooden pergolas and veranda systems use Standard Mount (See sketch below).

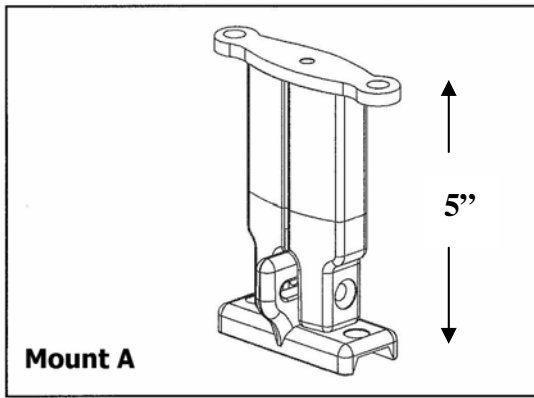


The clearance between the guides and the glass-profiles can be increased by means of higher attachment brackets (see fig below.).

Special order (additional cost, Check availability):

Possible lengths are 120mm (5"), 200mm (8"), 300mm (12") or 400mm (16") as an option.

- Take into account that the Solhara profiles are under a higher load.
- May only be used when there is no danger of turning over.
- The attachment system is in two parts:
 - a. The upper part: is pressed into the groove below the lateral and central guides.
 - b. **The lower part, exists in two versions:**
 1. Higher attachment point **A 5" tall:**
Measure same as standard brackets.
 - For any type of glass-covered conservatory frameworks and for all wooden pergolas and veranda systems.
 - Is screwed on the wood or into the groove at the top of the profiles, wherein the rubber seal is fitted. (mounting A – fig...)

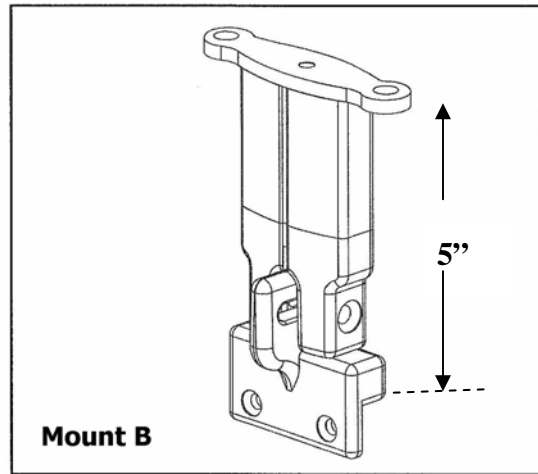


2. Higher side attachment point **B 5" tall:** (See top right)
 - For all types of sun rooms with the glass beneath Side Mount.
 - Is fixed to the profile with two bolts. (mounting B – fig...)

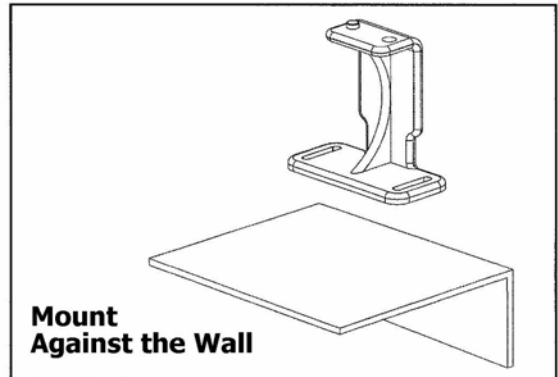
IMPORTANT! (B Brackets):

Note: Unit width must be wider when using the B brackets than when you use the standard brackets to accommodate the attachment of the side mount brackets B to the side of the conservatory framework.

Note: Measure outside of track to outside of track for the end tracks. Measure any intermediary middle tracks the same way.



- Additional mounting possibilities:
 - If the attachment is not possible according to either, mounting A or mounting B, there is always the possibility of adopting attachment against a wall (fig...). For this, use a standard, L-profile.



- The distance between two brackets should not exceed 63" or 1600 mm.

Note: In case of an intermediate roll, the awning will be mounted on higher aluminum attachment points 120mm.

3.5. Coupling 2 lateral guides.

To couple 2 systems use the coupling parts. There are 2 coupling parts:

- The coupling plate:
 - Material: aluminum.
 - Function:
 - The plate is placed underneath the 2 lateral guides. In the plate there are 4 holes provided for the screws. The screws glide into the groove of the guides (2 per guide) and so the plate is screwed down. In the middle of the plate there are 3 holes provided for the attachment point.
 - When the attachment point is directly mounted on the left or right guide, the coupling will be done by mounting the plate behind the attachment points.
- The angle coupling:
 - Material: Aluminum.
 - Function:
 - The angle is placed underneath the 2 lateral guides. The horizontal surface which is placed underneath the guides, has 2 holes for the screws. The screws glide into the grooves of the guides (1 per guide) and so the angle is screwed down.
 - The vertical surface has 1 hole for the fixation of the attachment point A or B.
 - Only when the attachment point is mounted in the middle

There are 2 different sets which can be ordered as an option.

- Set coupling plate:
 - Consists of: The coupling plate and the attachment means.
 - Function:
 - When the attachment point is mounted in the middle.
 - When using the higher attachment point, the profile higher attachment point is directly fixed on the plate.
 - In that case, the upper part of the attachment point will not be used.
- Set coupling duo:
 - Consists of: The coupling plate, the angle coupling and the attachment means.
 - Function:

- When the standard attachment point is placed in the middle, the attachment point upper part should be replaced by the angle coupling.
- When the standard attachment point is placed left or right on the guide, the coupling will be done independently of the attachment point, by mounting the coupling plate behind the attachment points

4. TECHNICAL DATA

- Minimum width per section: 2,00m (6'7")
- Maximum width per section: 4,50m (14'9")
- Maximum projection: 6,00m (19'8")
- Maximum area per fabric: ca20m²

The different (box) sections are delivered separately and are to be connected on the job site.

5. WEIGHT

- The approaching weight = Width x 8.18 lbs per meter (width)

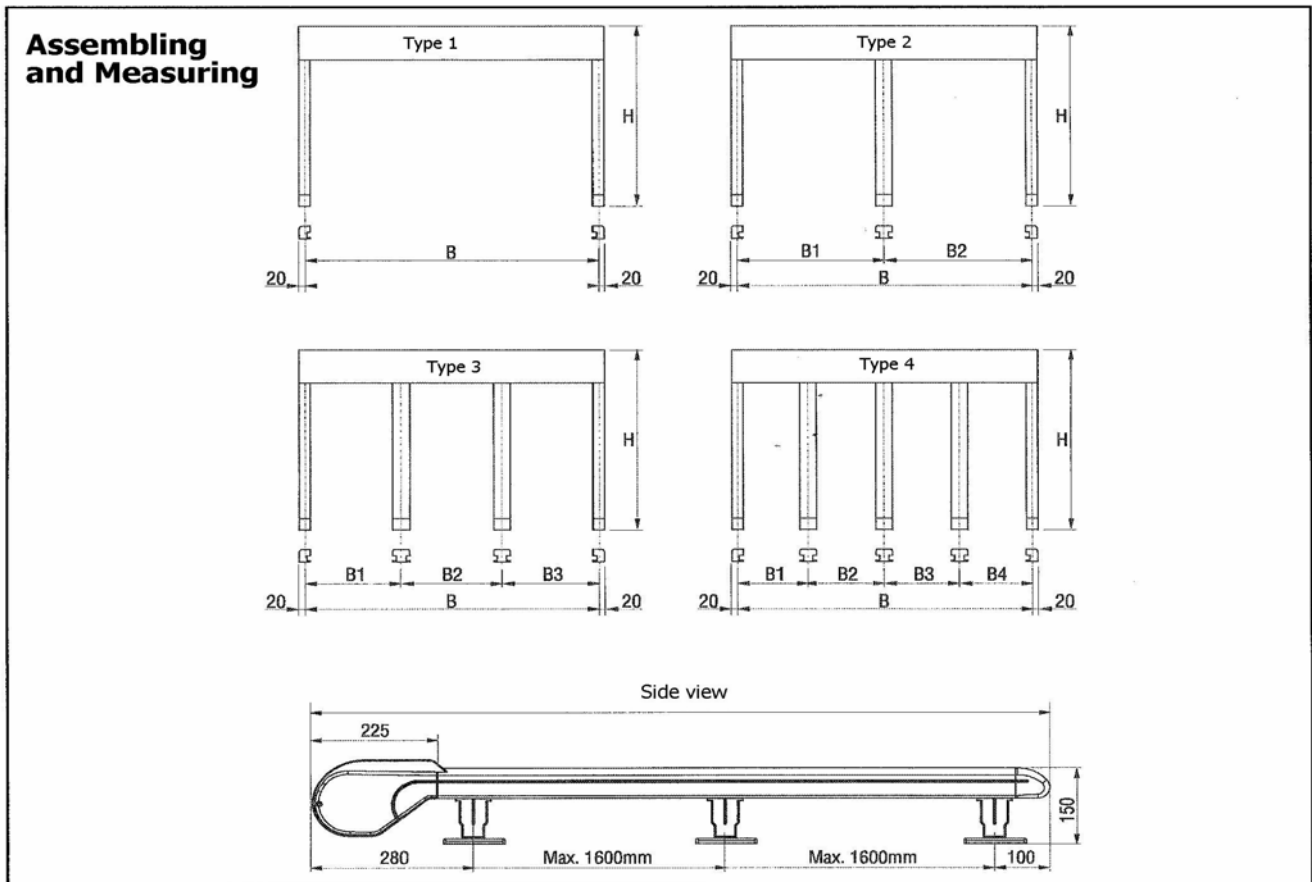
6. OPERATION

6.1. Motor Operation

- Drive via tubular motors: 110 volt (60Hz):
 - Fitted with a SOMFY motor,
 - Motor can be mounted on the far left or right side of the system as desired.
- Motor Cable:
 - Standard 6 ft..
 - Optional: 12 ft. or 24 ft.
 - RTS technology Somfy motors can be used for smaller systems and is an upgrade.
 - For larger systems use a standard motor and a Centralis Remote kit.
- A standard a single-pole switch is provided with all standard hard wire motors.

6.2. Automation

- Accessories:
 - Group Control
 - Wind-and-Sun sensors
 - Timers



7. FABRICS

- Choice between two types

7.1. Acrylic

- Composition: Acryl fibre solution Dyed
- Color: Patterns and colors chosen from the standard Para, Sunbrella, and Dickson collection
- Weight: Varies +/- 290-300 gr/m²
- Thickness: Varies +/- 0,5mm
- The fabrics are treated for rot and mold, and have waterproof and dirt-repelling qualities.

7.2. Mesh type fabrics:

Types: Soltis 86, Soltis Air, and Awntex 70 Standard.

Up charge: , Mermet Natte 4500 & 5500,

Soltis:

- Composition: Polyester threads, at both sides with PVC enveloped.
- Color: Different unicolors chosen from the standard collection.
- Weight: =/- 330-350 gr/m²
- Thickness: =/- 0,4-0,45mm
- The fabrics have excellent ventilation qualities, leave the view outwards and are very easily cleaned.

8. MEASURING AND ASSEMBLING

8.1 Guidelines for the correct measuring of the Solharo®.

Width:

Using Standard brackets & A brackets

- The total width of every unit or bay is Center of track to center of track of the structure or center of conservatory framework. The outside of the tracks and cassette frame is always 1 one'' (1) or 20mm more in width on each side than the center of the track or attachment points.
- Middle tracks are measured center to center

Using B brackets

Measure the same way as using standard brackets except the center of the outer lateral guides have to be measured as the outside edge of the conservatory tracks/ beams rather than the center of the beams to accommodate side mounting of the B type brackets on the

conservatory/beams. In other words, the center to center measurement of the lateral awning guides is the end of beam/ track to end of beam/track of the structure. Again, the outside of the Awning lateral tracks and cassette frame is always 1 one” (1) or 20mm more in width on each side than the center of the track or attachment points. Any middle lateral guides for a type 2 and 3 system will also be measured on the side of the beam on wood structures when all brackets used are type B..

- On conservatory glass sunrooms, you can use the B bracket in combination with the A (5” Extended top bracket). Any middle awning lateral guides tracks that use the 5” A brackets in combination with the B bracket must then be measured on the center rather than the side. On a type 2 system, you would then measure from end to center to the other end.

Projection:

- The projection/extension is measured from the backside of the box or cassette to the front side of the tracks including the cassette cover.
- Note: The end profile or front bar does not retract inside the cassette.

8.2. The assembly

- Review of the attachment points (item 3.4)
Attention: The allowed distance between two attachment points (brackets) of a guide or track is max. 1600mm or 63”.
The max overhang is 500mm or 20” beyond the curve or last bracket.

(SEE SEPARATE ASSEMBLY INSTRUCTIONS)

9. COLORS

White, Brown, Silver, Sand, and Forest Green.

10. ATTACHMENT POINTS

Rust-free attachment points and accessories are always inclusive.

11. PACKING

The Solharo® is packaged in solid cardboard cartons

12. USE AND MAINTENANCE

Suitable use and maintenance greatly increase the life of the sun awning.

- **Do not use the awning as a rain or wind awning.**

- Regular maintenance of the awning prevents unnecessary wear or problems with the function.

FRAME & CABLES:

- Cleaning of the frame: Use tepid water instead of aggressive substances that can affect the paint and protective layers.
- Lubricate the Rollers and Tedlar rope / cables once a year.
- Check tension in cable / springs.
- Units operating with a “Sun & Wind Control will experience a higher rate of wear on the cables.

FABRIC:

- Cleaning of the fabric: dry with a stiff brush.
- Stubborn stains: a tepid water and mild soap solution, rinse with clean water.
- See each manufacturers warranty and cleaning instructions of each type of fabric.

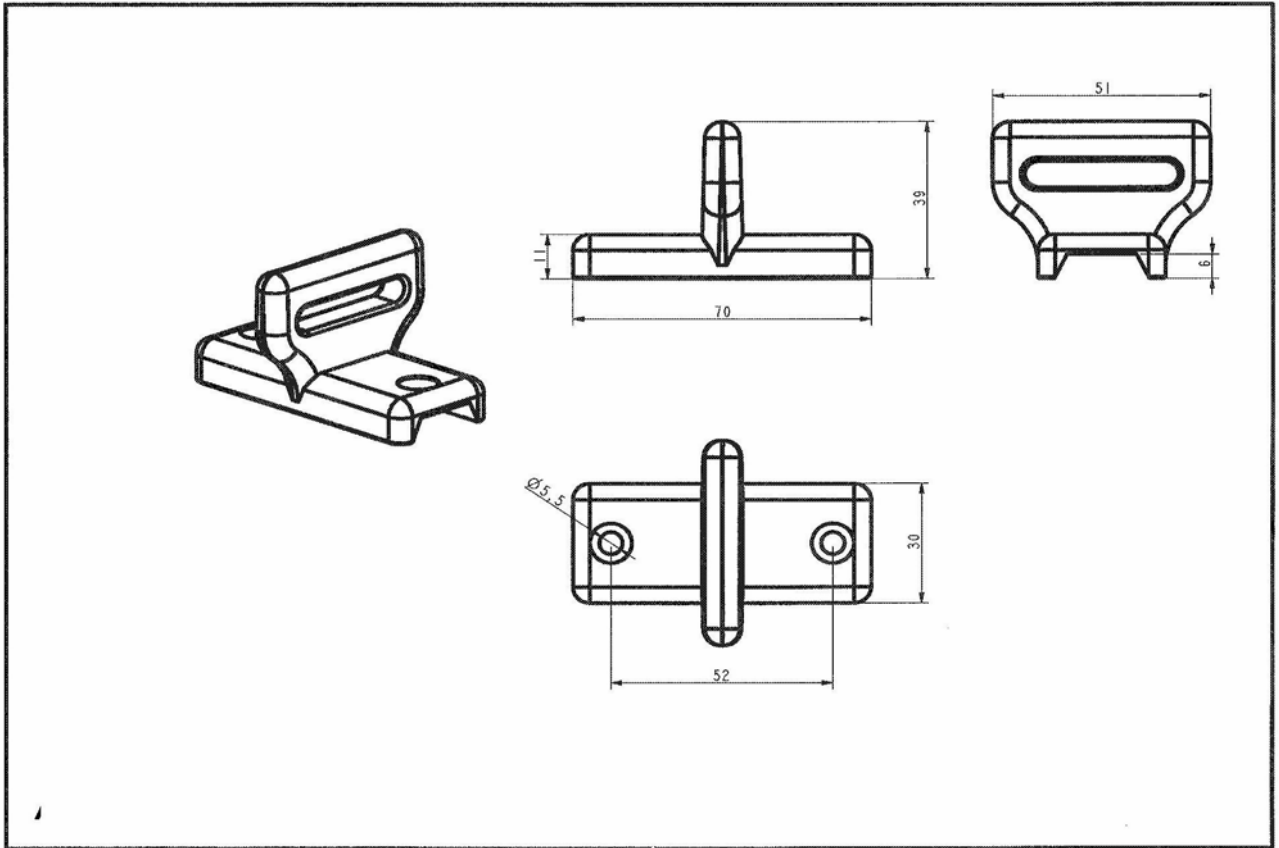
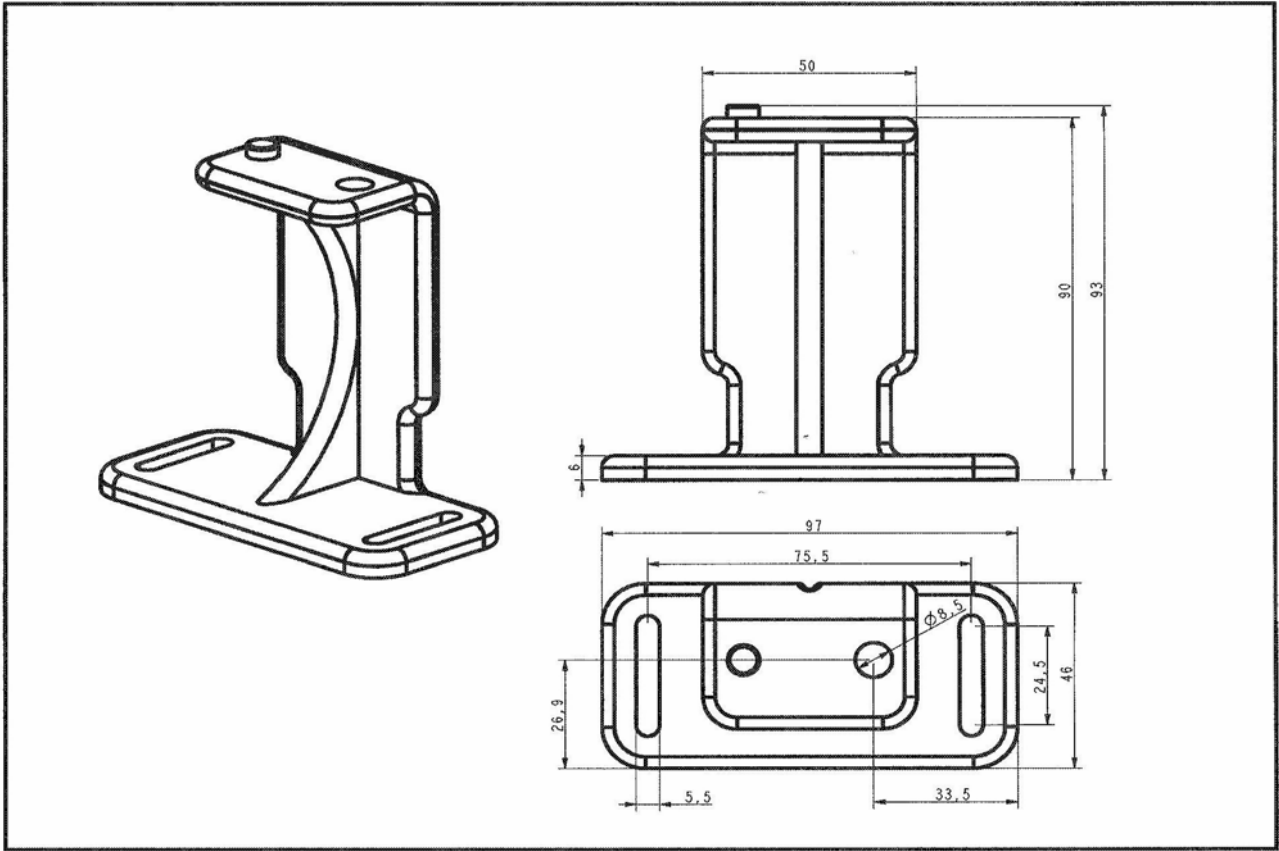
Let the awning dry fully before rolling it up (even after an unforeseen rain shower).

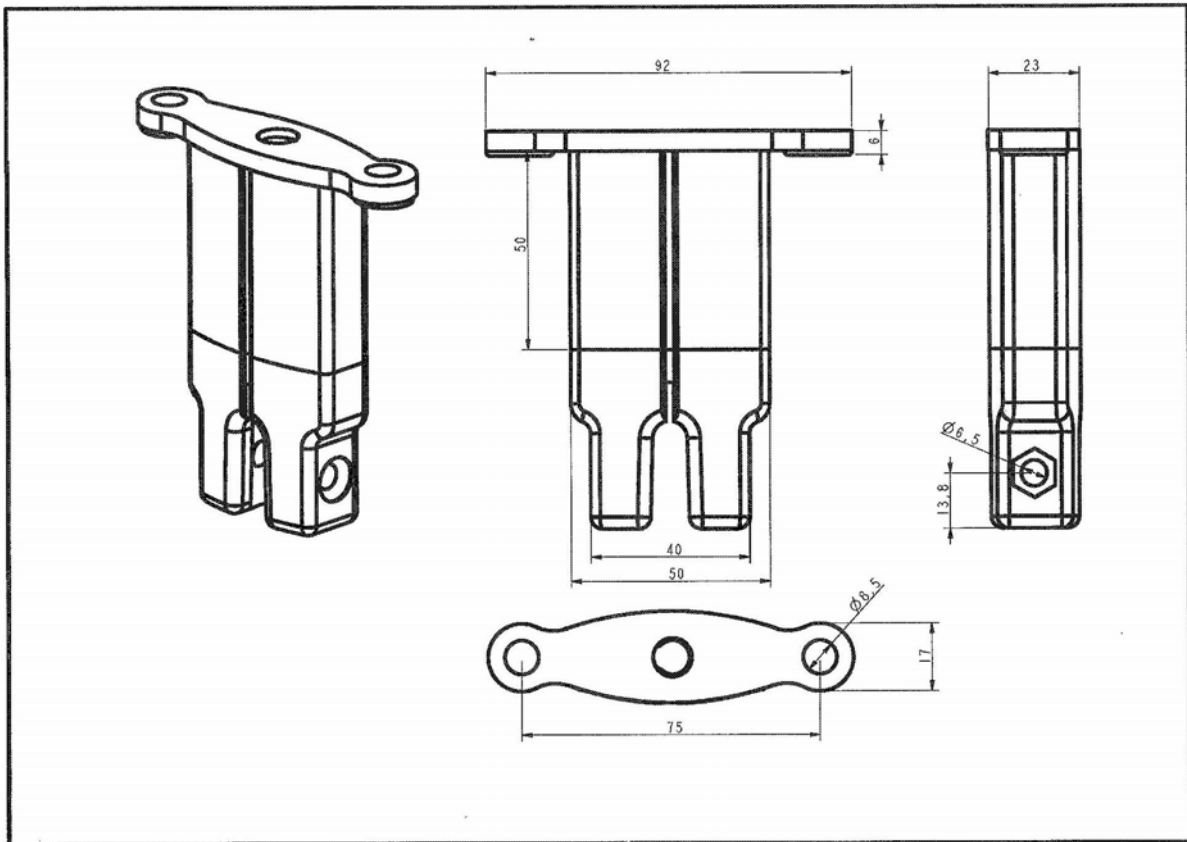
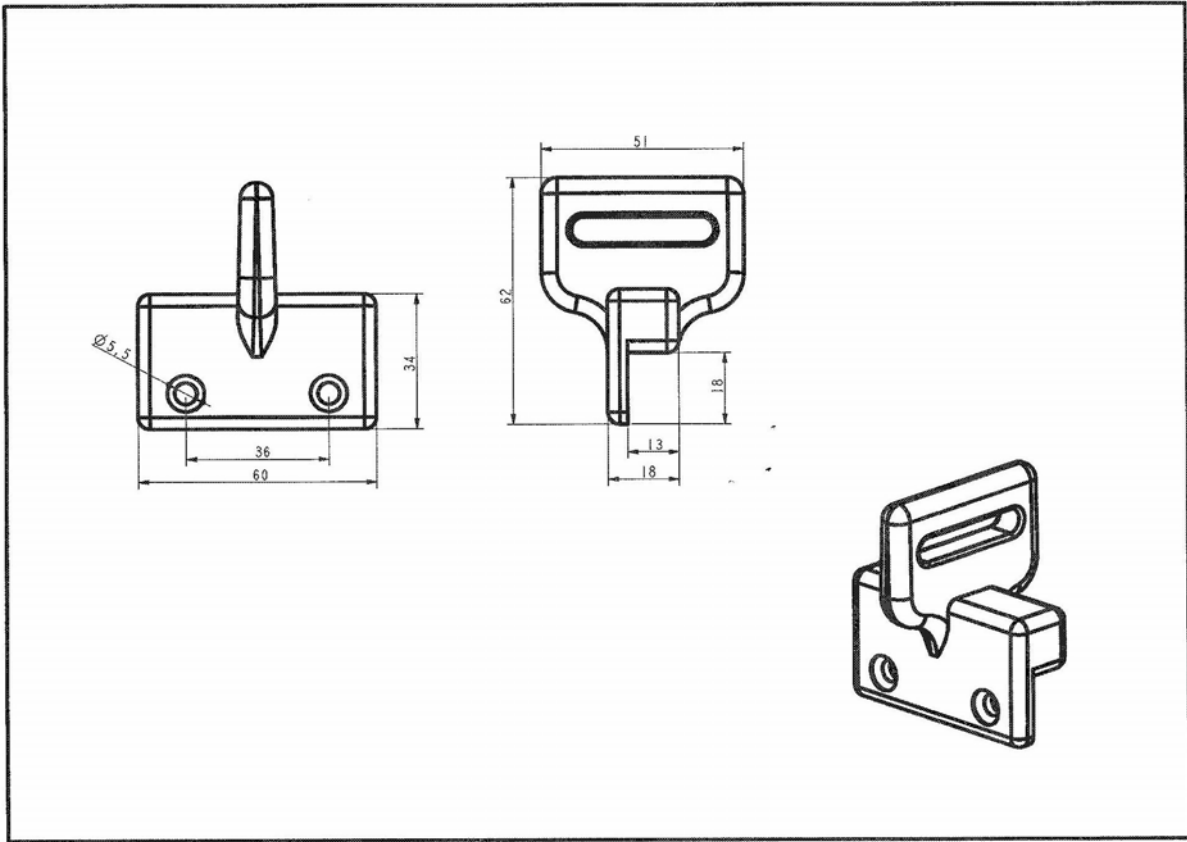
WARRANTY:

- Frame is warranted for Five (5) years
- Fabric and motors are warranted for Five (5) years by the manufacturer of these products (See separate warranty sheets from each manufacturer).
- The cable is warranted for 2 years.

13. SECURITY

For security reasons it is recommended to mount the awning according to the rules and guidelines listed above.

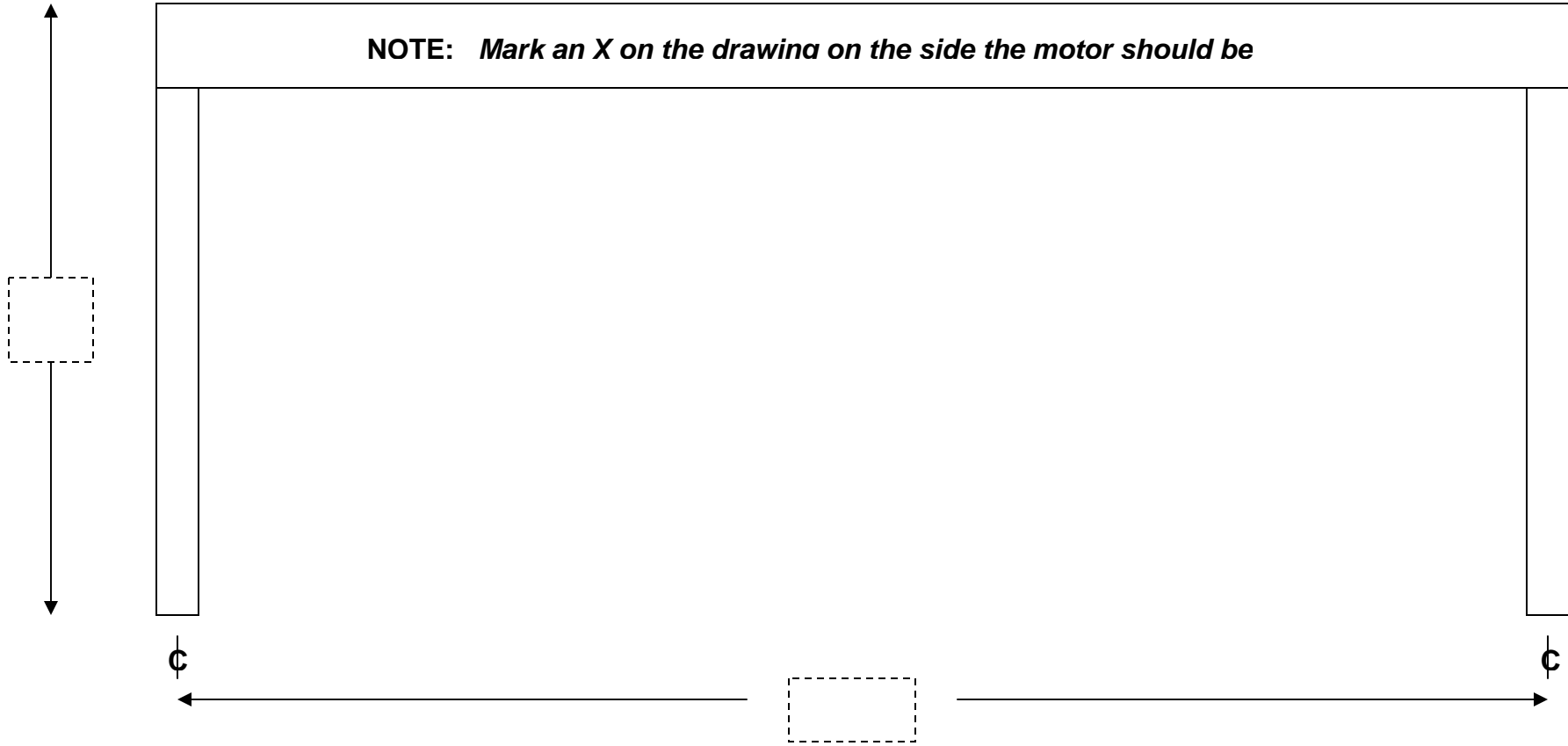




End

End

NOTE: Mark an X on the drawing on the side the motor should be



Center of track to center of track

Signed By:

NAME: _____

X _____

WORKSHEET SOLHARO® **TYPE #1** # _____ of _____

ORDER # _____ DATE: _____

CUSTOMER _____

CONTACT _____

AWNINGS UNLIMITED INC.
P.O. Box 1068
7785 Rt. 175
Jessup, MD 20794

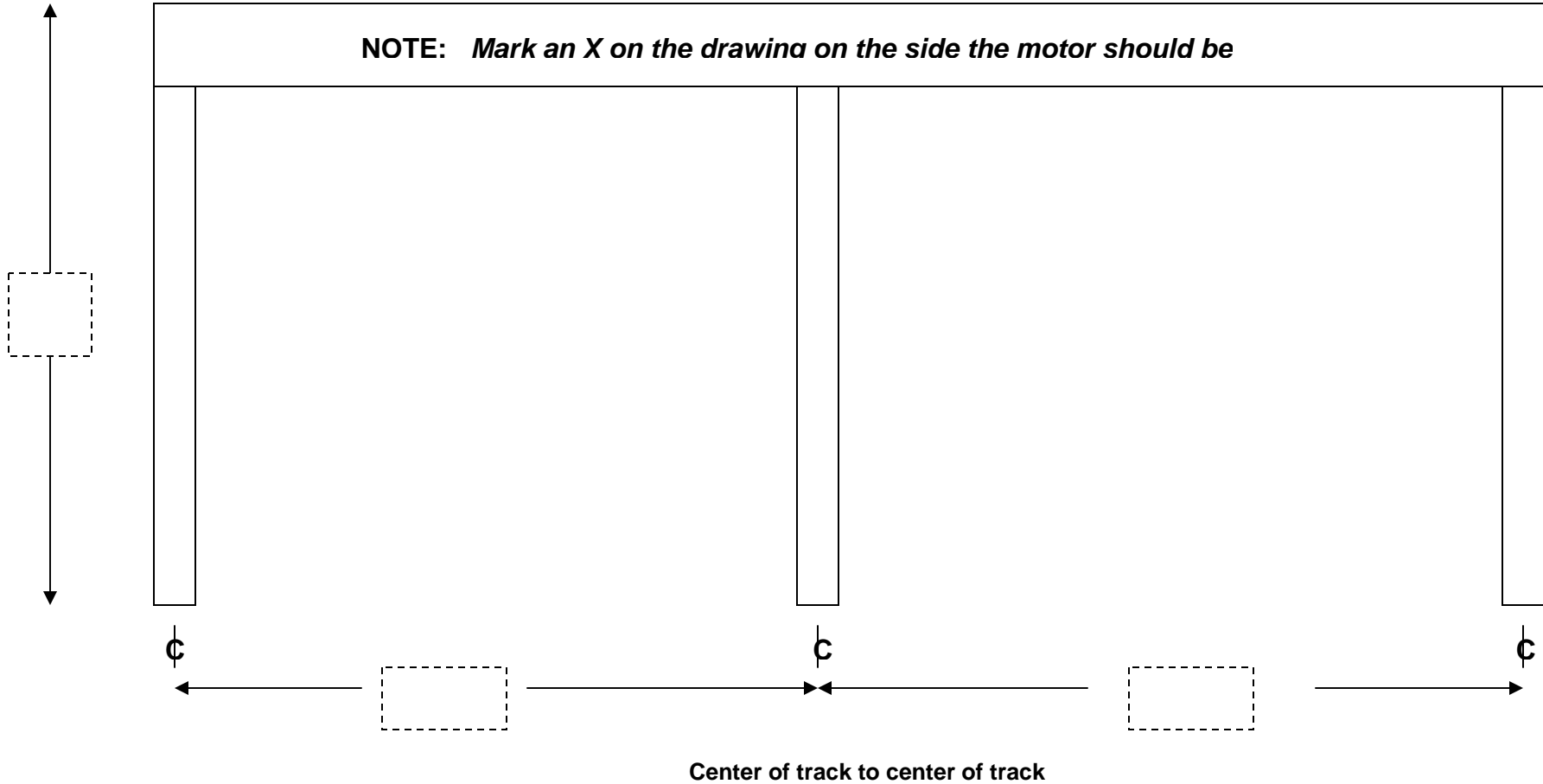
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End

End

NOTE: Mark an X on the drawing on the side the motor should be



Center of track to center of track

Signed By:

NAME: _____

X _____

WORKSHEET SOLHARO® **TYPE #2** # _____ of _____

ORDER # _____ DATE: _____

CUSTOMER _____

CONTACT _____

AWNINGS UNLIMITED INC.
P.O. Box 1068
7785 Rt. 175
Jessup, MD 20794

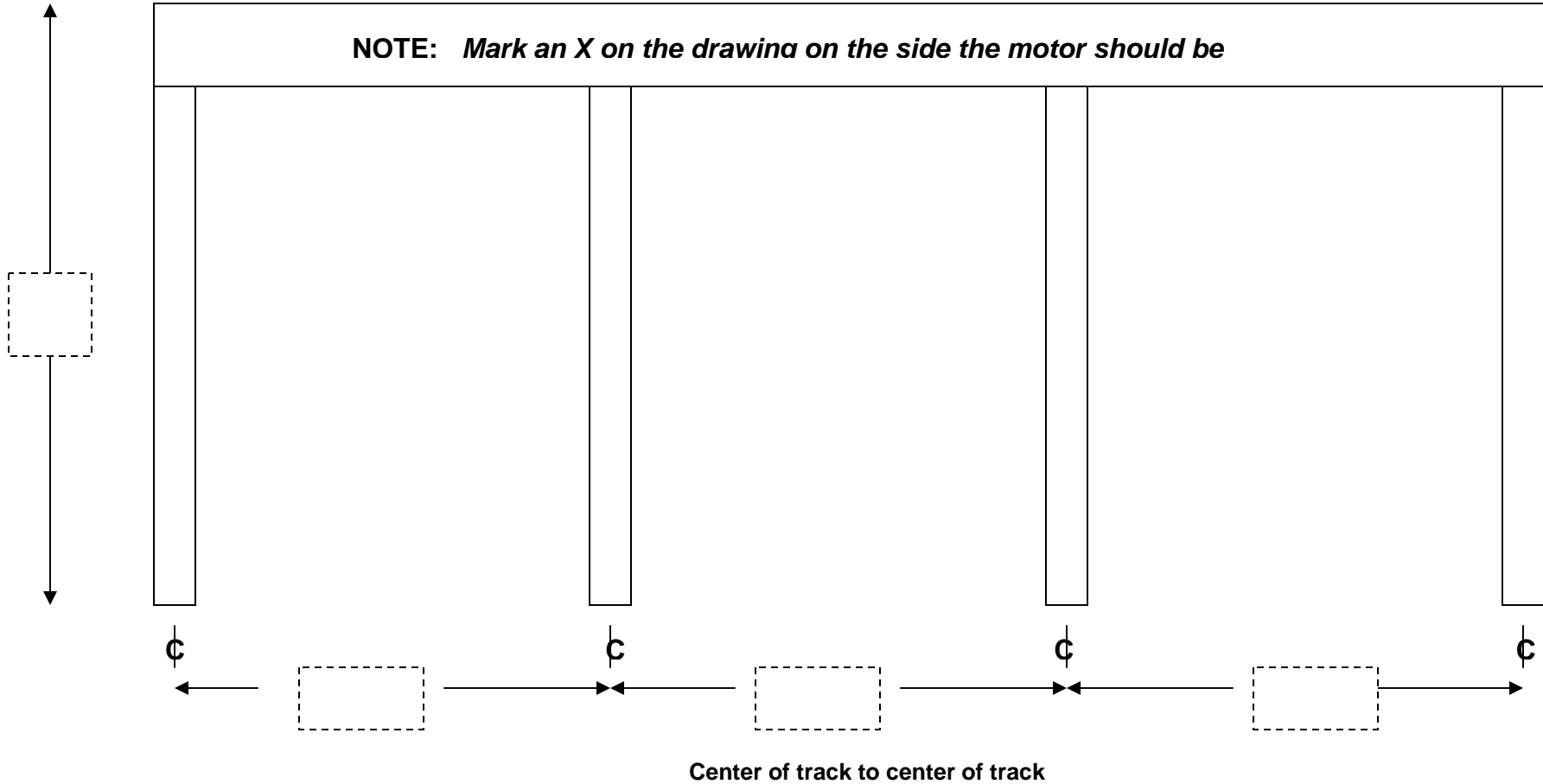
VIEW: TOP VIEW / SCALE NONE

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End

End

NOTE: Mark an X on the drawing on the side the motor should be



Signed By:

NAME: _____

X _____

WORKSHEET SOLHARO® **TYPE #3** # _____ of _____

ORDER # _____ DATE: _____

CUSTOMER _____

CONTACT _____

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P.O. Box 1068
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Jessup, MD 20794

VIEW: **TOP VIEW / SCALE NONE**

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