All information contained in this document was provided by the manufacturer of the components for this particular model. As a fabricator/distributor, Retractableawnings.com Inc. claims no liability with respect to these documents as we are not engineers and did not complete any of the information, engineering or calculations in this document.

All measurements in this document are metric. To convert from metric (meters, centimeters and millimeters) to imperial (feet and inches) visit this website:
http://www.onlineconversion.com/length_common.htm
**Important information:**

- A winter protection bag cannot be used for the variation with protective roof.
- In cases where the distance between furthest extension point and point of tensioning cable deflection on tensioning element is greater than 100cm, please contact the manufacturer in order to discuss the headroom height, system movability and the increased wear and tear on tensioning cable.

**Twister-Sail:**

- At gradients of 0% to 40% (0° to 22°)
- Water drains off automatically from a gradient of approx. 14% (8°)
**Measurements for SHADEONE® Structure**

**View from above:**

- System width 200 - 600 cm.
- System width for horizontal tensioning element from 300 cm.
- End of sail attachment rail to beginning of console: 10 cm.
- Mount consoles at equal distances.
- Width of consoles: 10 cm.
- Width of fabric screen = width of system - 19 cm.
- Outer edge of system & end of tensioning element: 1.5 cm.
- Tensioning element installed horizontally.
- Distance between tensioning cables: approx. 3 cm less than width of system.

**Measurements for wall consoles:**

- Installation screws for movement area.
- M10 thread.

**Number of wall consoles:**

<table>
<thead>
<tr>
<th>Width of system (mm)</th>
<th>Number of consoles</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 - 575 cm</td>
<td>1 pcs.</td>
</tr>
<tr>
<td>500 - 550 cm</td>
<td>2 pcs.</td>
</tr>
<tr>
<td>500 - 525 cm</td>
<td>3 pcs.</td>
</tr>
<tr>
<td>500 - 500 cm</td>
<td>4 pcs.</td>
</tr>
<tr>
<td>500 - 475 cm</td>
<td>5 pcs.</td>
</tr>
<tr>
<td>500 - 450 cm</td>
<td>6 pcs.</td>
</tr>
<tr>
<td>500 - 425 cm</td>
<td>7 pcs.</td>
</tr>
</tbody>
</table>

**Alternative to wall consoles:**

- Console rail
- (N.B.: Not compatible with winter protection bags)

**Important informations:**

- A winter protection bag cannot be used for the variation with protective roof.
- In cases where the distance between the tensioning cable deflection on tensioning element is greater than 100 cm, please contact the manufacturer in order to discuss the headroom height, system moveability and the increased wear and tear on tensioning cable.

**Twister-Sail:**

- At gradients of 0% to 40% (0° to 22°)
- Water drains off automatically from a gradient of approx. 14% (8°)

**Please note:**

(a) The outer-most installation holes at either end should be closer than 20 cm to the edge of the system.
(b) The internal distances between the installation holes should be no greater than 100 cm.

**Example of installation:**

[Diagram of installation setup]

[Page number: 3]
**Important information:***

- A winter protection bag cannot be used for the variation with protective roof.
- In cases where the distance between furthest extension point and point of tensioning cable deflection on tensioning element is greater than 100 cm, please contact the manufacturer in order to discuss the headroom height, system movability and the increased wear and tear on tensioning cable.

**Twister-Sail:**
- At gradients of 0% to 40% (0° to 22°)
- Water drains off automatically from a gradient of approx. 14% (8°)
MEASUREMENTS FOR MODULAR SYSTEM | SHADEONE® FRAME

View from above:

Distance column axis - column axis = system width - 3 cm
Width of fabric screen = width of system - 19 cm

Distance between tensioning cables: approx. 3 cm less than width of system

Important information:
- A winter protection bag cannot be used for the variation with protective roof
- In cases where the distance between furthest extension point and point of tensioning cable deflection on tensioning element is greater than 100 cm, please contact the manufacturer in order to discuss the headroom height, system movability and the increased wear and tear on tensioning cable.

Twister-Sail:
- At gradients of 0 % to 40 % (0° to 22°)
- Water drains off automatically from a gradient of approx. 14 % (8°)

Example of installation:
(For more examples of installation, see page 16 onwards)
View from above:

- Cross beam: Round Aluminium profile section Ø85 mm
- System width INOX: 200 - 600 cm
- Consoles preassembled at equal distances
- Outside of cross profile mounting plate
- End of sail attachment
- 10 cm

Width of fabric screen = width of system - 19 cm

Distance column axis - column axis = system width - 3 cm

Optional floor plate 5”

Side view:

- Cross profile mounting plate
- Extension length INOX: 150 - 375 cm

Variation with protective roof
- Round Alu section profile Ø85 mm
- 5"
- ca. 30 cm

Variation without protective roof
- Round Alu section profile Ø85 mm

Important information:
- A winter protection bag cannot be used for the variation with protective roof
- In cases where the distance between furthest extension point and point of tensioning cable deflection on tensioning element is greater than 100 cm, please contact the manufacturer in order to discuss the headroom height, system moveability and the increased wear and tear on tensioning cable.

Twister-Sail:
- At gradients of 0% to 40% (0° to 22°)
- Water drains off automatically from a gradient of approx. 14% (8°)

Example of installation:
(For more examples of installation, see page 18 onwards.)
**View from above:**

- Optional floor plate 5°
- Outside of cross profile mounting plate
- End of sail attachment rail to beginning of console: 10 cm
- Cross profile mounting plate
- Optional floor plate 0°
- Outer edge of column
- Optional floor plate 5°
- Outer edge of system

**Distance column axis - column axis = system width = 3 cm**

**Width of fabric screen = width of system = 19 cm**

**System width INOX: 200 - 600 cm**

**Consoles preassembled at equal distances**

**Optional floor plate 5°**

**Cross beam: Round Aluminium profile section Ø85 mm**

**5.5 cm**

**Side view:**

- Cross profile mounting plate
- Extension length: 150 - 500 cm
- Frame height INOX: 180 - 300 cm
- Standard height: 200 cm

**Variation without protective roof**

- Roll-up canopy
- Round Alu section profile Ø85 mm
- Plexiglas canopy

**Variation with protective roof**

-大约 35 cm
-大约 18 cm

**Important information:**

- A winter protection bag cannot be used for the variation with protective roof.
- In cases where the distance between furthest extension point and point of tensioning cable deflection on tensioning element is greater than 100 cm, please contact the manufacturer in order to discuss the headroom height, system movability and the increased wear and tear on tensioning cable.

**Twister-Sail:**

- At gradients of 0% to 40% (0° to 22°)
- Water drains off automatically from a gradient of approx. 14% (8°)

**Example of installation:**

(For more examples of installation, see page 18 onwards)
**View from above:**

- Crossbeam: Round Aluminium profile section Ø 85 mm
- Optional floor plate 5" for double column
- Floor plate 0" for double column
- Outside of cross profile mounting plate
- Cross profile mounting plate
- Optional floor plate 0"
- Console preassembled at equal distances
- System width INOX: 200 - 600 cm
- Extension length INOX: 150 - 275 cm
- Distance between tensioning cables: approx. 3 cm less than width of system
- Width of fabric screen = width of system - 10 cm

**Side view:**

- Cross profile mounting plate
- Extension length: 150 - 275 cm
- Round Aluminium profile Ø 85 mm
- Roll-up canopy
- Ploegas canopy
- Distance from bottom of tensioning cable to fabric
- Length of tensioning cable

**Important information:**
- A winter protection bag cannot be used for the variation with protective roof
- In cases where the distance between furthest extension point and point of tensioning cable deflection on tensioning element is greater than 100 cm, please contact the manufacturer in order to discuss the headroom height, system movability and the increased wear and tear on tensioning cable.

**Twister-Sail:**
- At gradients of 0% to 40% (0° to 22°)
- Water drains off automatically from a gradient of approx. 14% (8°)

**Example of installation:**
(For more examples of installation, see page 18 onwards)
View from above:

- Width of frame: 400 - 600 cm
- Length of frame: 200 - 375 cm
- Width of fabric screen: width of frame - 22 cm
- Width of frame: width of Twister-Sail system + 3 cm
- Distance between tensioning cables: approx. 6 cm less than width of system
- Rollable protective roof

Side view:

- Height of frame: 260 cm (standard height: 248 cm)
- Length of frame: width of Twister-Sail system + 12 cm
- Rollable protective roof

Frame profile (Brushed stainless steel):

- Ground fixation plate:

Example of installation:

(For more examples of installation, see page 18 onwards)

Important informations:
- The tensile forces occurring at the individual columns and ground fixation plates depend on the size of the system and wind load design and can be inquired by the manufacturer.
- Example: for a CUBE system with a width and extension of 6m x 5.75m and a wind load design for wind class 3 (=wind force 6 respectively wind velocity max. 49m/s), a minimum of 850N tensile force per column and ground fixation plate is to be expected.
- Each of the four columns / ground fixation plates must be properly connected to the ground. (Fixation of the column position + protection against wind abrasion).
- The type of connection must be selected to match the ground and the expected tensile load.
MEASUREMENTS FOR SHADEONE® WHEN ROLLED UP

Detailed perspective A:
wall installation with protective roof (acrylic glass)

N.B.: A winter protection bag cannot be used for the variation with protective roof

Detailed perspective A:
wall installation without protective roof

Rolled up Approx. 150

Detailed perspective A:
wann installation with rollable protective roof

Rolled up Approx. 160

Detailed perspective B:
installation on ceiling without protective roof

Rolled up Approx. 150
MEASUREMENTS FOR SHADEONE® INOX
WITH ROUND STAINLESS STEEL COLUMNS

Outlet for tensioning cable:

Profile section:

1850 - 3000 mm (Standard length: 2420 mm)

5°

Fixing screw: 40

Hole for tensioning crank: 1440 mm

Optional floor plate (attached and screwed on)

Dependent on length of columns (160 - 260 mm)
At a standard length of 210 mm

Outlet for tensioning cable

250 mm

63 25 63 74 250 mm

50

190 30 14 14 250 mm
MEASUREMENTS FOR SHADEONE® INOX
WITH SQUARE STAINLESS STEEL COLUMNS

1850 - 3000 mm (Standard length: 2420 mm)

5°

Fixing screw: 40

Hole for tensioning crank: 1440 mm

Outlet for tensioning cable:

Profile section:

Optional floor plate (attached and screwed on)

Dependent on length of columns (160 - 260 mm)
At a standard length of 210 mm

Outlet for tensioning cable
SUMMARY OF IMPORTANT INFORMATION:

(1) Max. overall tube length of the elbowed jack column: 300 cm
(2) Elbowed length must be no less than 150 cm from the top to the bend (Standard 150 cm)
(3) The angle of the elbowed bend must be between 0° and 45° (Standard 45°)
(4) Measurement of extension: distance from front edge of cylinder to top of jack column: at least 15 cm!
(5) Optional floor plates:
   - Single column (round or square) & double column (round or square): if the angle between floor plate and jack column axis is 85°, the floor plate is screwed on; otherwise it is welded on.
MEASUREMENTS FOR SHADEONE® INOX STAINLESS STEEL COLUMN
75 CM HEIGHT ADJUSTABLE (ROUND / SQUARE)

Dependent on length of column (210 - 260 mm)
At a standard length of 210 mm

Optional floor plate
(attached and screwed on)

Dependent on length of column (210 - 260 mm)
At a standard length of 210 mm

Optional floor plate
(attached and screwed on)

(4) PLEASE NOTE:
Positioning of height adjustable (and the second associated tension element): minimum distance from front edge of completely extended sail to tip of stainless steel column: min. 30 cm!

(3) PLEASE NOTE:
Crank rotation axis: a radius of 25 cm around the crank rotation axis is needed in order to adjust the height. No objects should be placed in its way.

SUMMARY OF IMPORTANT INFORMATION:
(1) Total length of jack column: min. 242 cm, max. 300 cm
(2) Height of crank rotation axis: 100 cm to < length of column minus 85 cm > (Example: with a jack column length of 300 cm, the crank rotation axis would be at a height of 100 to 215 cm. Standard: 110 cm distance from tip of stainless steel column)
(3) Crank rotation axis: a radius of 25 cm around the crank rotation axis is needed in order to adjust the height. No objects should be placed in its way (determine height of crank rotation axis accordingly).
(4) Positioning of stainless steel column: minimum distance from front edge of completely extended sail to tip of stainless steel column: min. 30 cm!
(5) Angle between direct line from the top of the stainless steel column to point at which sail and stainless steel axis are mounted onto wall must be between 85° and 105°
(Example: if stainless steel column is vertical, the maximum gradient of the sail can be 15°)
MEASUREMENTS FOR SHADEONE® STRUCTURE TENSIONING ELEMENT
INCLUDING 2 DESIGN PIPE CLIPS (TWO-PART)

1485

Design pipe clip (two-part)

14

46.5

200

1085

100

100

Movement enabled!

Movement enabled!

MEASUREMENTS DESIGN PIPE CLIP (TWO-PART) SEE INSTALLATION ACCESSORIES STRUCTURE ON PAGE 17

MEASUREMENTS FOR SHADEONE® COLUMN CONNECTOR
FOR DOUBLE COLUMN (ROUND | SQUARE) MODULAR SYSTEM MULTI

65.3

M8

160

86.4

160.6

SHADEONE® MOTOR DRIVE

DRIVE UNIT:
12 volt engine, charging electronics, battery pack, drive shaft, connection to charging unit

CHARGING UNIT:
Connected to sail connection rail, charging contact plate, plug for power supply
AC/DC respectively solar panel
**Installation Accessories for SHADE ONE® INOX**

**Important Information:**
- Installation components should only carry weight in a front-facing direction (see diagram on the right).
- Minimum distance between two installation components on one tensioning element: 60 cm

**Single Column | Clamping Elements:**
- Counter Plates (A2) + U-Brackets (A2)

**Single Column | Screw-on Elements:**
- Design Pipe Clip (A2)

**Intended Type of Mounting Screws:**
M10 - hex head screw + washer

**Double Column | Clamping Elements:**
- Clamping Elements (A2) + Counter Plates (A2)

**Double Column | Screw-on Elements:**
- Clamping Elements (A2) + Mounting Plate (A2)

**Intended Type of Mounting Screws:**
M10 - hex head screw + washer
INSTALLATION ACCESSORIES FOR SHADEONE® STRUCTURE
(SPECIAL SOLUTIONS)

Important information:
- Installation components should only carry weight in a front-facing direction (see diagram on the right).
- Minimum distance between two installation components on one tensioning element: 60 cm.

COUNTER PLATES (A2) + U-BRACKETS (A2)

DESIGN PIPE CLIP (TWO-PART) (A2)

PROFILE 40 X 40

CLAMPING BRACKET

BASE PLATES (FOR WALL INSTALLATION)

INTENDED TYPE OF MOUNTING SCREWS:
M8 - hex head screw + washer

UPGRADED INSULATION MOUNTING PROFILE (ALUMINIUM)

Profile section:

Note: Any deviations of the delivery length must be stated separately in the order! (Maximum length of profile: 600 cm)

View:

Delivery length = width of system

Note:
- Use screw foundations only for single columns and suitable ground (otherwise there is a risk of foundation movement due to stress).
- Build a suitable concrete foundation in all other cases.

SCREW FOUNDATION (GALVANISED)
 ADAPTER FOR FLOOR PLATE (GALVANISED)
25 X 25 CM – INOX
SHADEONE® VARIATIONS FOR INSTALLATION

INSTALLATION WITH 2 COLUMNS
(INOX)

INSTALLATION ONTO RAILINGS
WITH 2 COLUMNS
LEFT: 1x STRAIGHT (INOX)
RIGHT: 1x ELBOWED (INOX)
SHADEONE® VARIATIONS FOR INSTALLATION

INSTALLATION WITH:
LEFT: 1 TENSIONING ELEMENT STRUCTURE VERTICAL
RIGHT: 1 TENSIONING ELEMENT STRUCTURE PARALLEL TO DIRECTION OF EXTENSION (90° ROTATED PULLEY HEAD)

INSTALLATION WITH:
LEFT: 1 COLUMN (INOX)
RIGHT: 1 TENSIONING ELEMENT STRUCTURE VERTICAL (90° ROTATED PULLEY HEAD)
SHADEONE® VARIATIONS FOR INSTALLATION

INSTALLATION WITH TWO TENSIONING ELEMENTS STRUCTURE HORIZONTAL

INSTALLATION WITH:
LEFT: 1 COLUMN (INOX) WITH SCREW FOUNDATION
RIGHT: 1 COLUMN (INOX) WITH HEIGHT ADJUSTMENT
SHADEONE® VARIATIONS FOR INSTALLATION

INSTALLATION WITH:
LEFT: 1 COLUMN (INOX) WITH SCREW FOUNDATION
RIGHT: 1 COLUMN (INOX)
WITH CONCRETE FOUNDATION
(width x length x depth = min. 40x40x80 cm)

SHADEONE® MODULAR SYSTEMS
VARIATIONS FOR INSTALLATION

MODULAR SYSTEM MULTI
(DOUBLE SYSTEM)
SHADEONE® MODULAR SYSTEMS
VARIATIONS FOR INSTALLATION

MODULAR SYSTEM FRAME

MODULAR SYSTEM MULTI FRAME
(DOUBLE SYSTEM)
SHADEONE® MODULAR SYSTEMS
VARIATIONS FOR INSTALLATION

MODULAR SYSTEM TWIN
ABOVE: WITH ROLL-UP CANOPY
BELOW: WITH PLEXIGLAS CANOPY

MODULAR SYSTEM MULTI TWIN
(DOUBLE SYSTEM)
ABOVE: WITH ROLL-UP CANOPY
BELOW: WITH PLEXIGLAS CANOPY
All weather protection systems!

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