## Equipment

## Markisolettes

|  | Markisolettes |  |  |
| :---: | :---: | :---: | :---: |
|  | 101 | 109 | 150 |
| Drive and operation |  |  |  |
| - Motor | $\bullet$ | $\bullet$ | $\bullet$ |
| - EWFS and/or WMS radio motor | 0 | 0 | - |
| - Plug-in connector, loose | - | - | $\bullet$ |
| - Plug-in connector, wired | $\bullet$ | $\bullet$ | 0 |
| - Control systems | 0 | 0 | 0 |
| - Crank | 0 | 0 | 0 |
| Mechanically coupled curtains |  |  |  |
| - Motor 2 curtains | 0 | 0 | 0 |
| - Motor 3 curtains | 0 | 0 | - |
| - Crank 2 curtains | 0 | 0 | 0 |
| - Crank 3 curtains | - | - | - |
| Lateral guides |  |  |  |
| - Round profile $\varnothing 40 \mathrm{~mm}$ | - | - | - |
| - Round profile Ø 035 mm | - | $\bullet$ | - |
| - C profile $20 / 38 \times 40 \mathrm{~mm}$ (with groove) | $\bullet$ | $\bullet$ | $\bullet$ |
| - C profile $25 \times 30 \mathrm{~mm}$ (open front) | - | - | - |
| Mounting situation |  |  |  |
| - with spacing (flexible distance to the facade) | $\bullet$ | - | 0 |
| - without spacing (direct installation) | - | - | $\bullet$ |
| Projection system |  |  |  |
| - Standard projection | 594 mm | 511 mm | 511 mm |
| - max. projection angle | $150^{\circ}$ | $150^{\circ}$ | $145^{\circ}$ |
| Surface treatment of aluminium parts |  |  |  |
| - powder-coated according to | WAREM | ur World | RAL 9006 RAL 9016 RAL 8016 satin finish |
| - Special coating | 0 | 0 | 0 |
| - C0 anodised | 0 | 0 | $\bullet$ |
| - anodised in colour | 0 | 0 | 0 |
| Fabric |  |  |  |
| - Standard/Lumera acrylic | 0 | 0 | 0 |
| - All Weather, Perfora acrylic | $\bullet$ | $\bullet$ | $\bullet$ |
| - Screen | $\bullet$ | $\bullet$ | - |
| - Soltis-92 | 0 | 0 | 0 |
| - Twilight Pearl/Metal | 0 | O | 0 |
| - WAREMA SecuTex fabric A2 | 0 | 0 | 0 |
| - standard <br> - optional <br> - not available |  |  |  |


fig. 240: Markisolette 101
1 Cover panel
2 Fabric shaft
3 Fabric
4 Lateral guidance
5 Projection system 5.1 Connecting rail
5.2 Drop arm
5.3 Pressure spring
5.4 Windlock mechanism

6 Drop profile
7 Guiding tube

## Application

Textile external sun shading system with projection effect for shading large vertical facade areas, e.g. transom and mullion facades.
The upper part of the fabric remains parallel to the glass.

## Operation

## Basic motor, 230 V, 50 Hz

LT50 with mechanical limit switch-off (optionally with EWFS/ WMS plug receiver)
EWFS radio motor, $230 \mathrm{~V}, 50 \mathrm{~Hz}$ (optional)
W-MP with electronic limit switch-off

## WMS radio motor, $230 \mathrm{~V}, 50 \mathrm{~Hz}$ (optional)

WMS-MP with electronic limit switch-off
More information about drives from page 218.

## Crank

Screw gear with crank rod and collapsible crank

| Material: | aluminium |
| :--- | :--- |
| Surface: | C0 anodised |

Ratio:
Crank holder:
3:1 or 7.8:1 (for larger and coupled facade awnings)
plastic (grey, white or brown), crank holder with magnet optional
Mechanical coupling may result in displacement of the drop profiles by $\pm 20 \mathrm{~mm}$ (coupling play).

## Cover panels (1)

Half-round cover panel, aluminium, extruded
Material:
aluminium, extruded
Material thickness: 2.5 mm
Dimensions ( $\mathrm{H} \times \mathrm{D}$ ): $191 \times 181 \mathrm{~mm}$, incl. water drip (type 2.3)
Dimensions (r): inside 71 mm
Max. individual length: 4000 mm
Surface: powder-coated, optionally anodised
The front leg is bent outwards by 48 mm at an angle of $45^{\circ}$ to provide weather protection.

## Round cover panel, extruded aluminium

## two-piece

Material: aluminium, extruded
Material thickness: 2.5 mm
Dimensions ( $H \times D$ ): $146 \times 146 \mathrm{~mm}$ (type 8.3)
Dimensions (r): inside 70.5 mm
Max. individual length: 4000 mm
Surface: powder-coated, optionally anodised

fig. 241: Cover panels

## Fabric shaft (2)

Material:
galvanised steel
Material thickness: 1 mm
Dimensions ( $\varnothing$ ): $\quad 78 \mathrm{~mm}$
Profile: groove tube
Surface: plain
Fixing: can be clamped to the rail using fabric shaft consoles
With piping groove for attaching the fabric

## Fabric (3)

Fabric qualities:
Standard/Lumera acrylic
Perfora/All Weather acrylic
Soltis-92
Screen
Twilight Pearl/Metal
WAREMA SecuTex fabric A2
More information about the fabrics on page 214
Designs: $\begin{aligned} & \text { according to current WAREMA collec- } \\ & \text { tion }\end{aligned}$
Special fabrics not included in our current collection are only available upon request and at a surcharge.

## Lateral guidance (4) <br> Rail

## Round profile

Material:
Dimensions ( $\varnothing$ ):
Profile:
Surface:
Fixing:
C profile
Material:
Material thickness: 2 mm
Dimensions (WxH): 20/38×40 mm
Profile:
Surface:
Fixing:
C profile with mounting groove powder-coated, optionally anodised guide rail bracket, two-piece, aluminium
End cap: plastic, black

fig. 242: Guide profiles

## Projection system (5) <br> Connecting rail (5.1)

| Material: | aluminium |
| :--- | :--- |
| Material thickness: | 5 mm |
| Dimension $(\mathrm{B})$ : | 25 mm |
| Profile: | flat profile |
| Surface: | powder-coated, optionally anodised <br> Slider: |
| plastic, for guiding in the rail |  |
| Drop arm (5.2) |  |
| Material: | aluminium |
| Material thickness: | 4 mm |
| Dimensions $(\mathrm{W} \times \mathrm{H}):$ | $30 \times 20 \mathrm{~mm}$ |
| Profile: | angle-shaped profile |
| Surface: | powder-coated, optionally anodised |
| Projection angle: | circular up to $150^{\circ}$ <br> Projection: |
|  | 594 m |

## Pressure spring (5.3)

Situated in the joint, nearly invisible

## Material: steel, resistant to corrosion

Windlock mechanism (5.4)
Includes height-adjustable windlock mechanism in the guide rail for additional locking
against gusts of wind.
Effective at projection angles of $90^{\circ}-150^{\circ}$.

## Drop profile (6)

Material: aluminium, extruded
Material thickness: 2 mm
Dimensions ( $\varnothing$ ): $\quad 40 \mathrm{~mm}$
Profile: round profile, mounting groove optional
Surface: powder-coated, optionally anodised
Connection from drop arm to drop profile through 2-point fixing using a plastic insert in the drop profile.
Available as models "visible" (standard) or "concealed in fabric" (optional). To provide optimal fabric tension and wind protection the drop profile is weighted down with galvanised steel profiles.

## Guiding tube (7)

Material: aluminium, extruded
Material thickness: 2 mm
Dimensions ( $\varnothing$ ): 40 mm
Profile: round tube
Surface: powder-coated, optionally anodised
The guiding tube is fixed to the lateral connecting rails and locked using stainless steel bearing bolts.

## Connecting and fixing parts

Within the facade awnings
Material: A2 steel or aluminium
Weights

fig. 243: Weight type 101

## Markisolette 101

## Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours, four anodised-look colours (WC31 - WC34) and further colours according to WAREMA Colour World (in WAREMA colour specification). Other colour specifications, special colours and anodisation are available on request at a surcharge.
For anodised facade awnings the visible cast aluminium parts are powder-coated to match the anodised colour.

## General note

For transom and mullion facades, markisolettes with motor drives should be preferred over crank drives, since the gear outlet goes through the facade and placement of the drilled holes can often be difficult.

## Notes:

Soltis 92 fabrics are bonded crosswise for order widths starting at 1800 mm.

Screen fabrics can be used crosswise up to a curtain length of 1900 mm . The maximum order width is then 3000 mm .

The following applies to both fabrics: All units should then be used crosswise on the facade in order to give a uniform appearance across the entire building.

Acrylic fabrics with an order width of more than 1200 mm are made from several individual lengths of fabric.

fig. 244: Measuring instructions for Markisolette 101

Use our free planning program at www.sunshadingplanner.com to plan your sun shading
systems - here you can configure the product and create a technical drawing to be integrated into your plans.

## Construction limit values

|  | Type of fabric | Individual unit |  | Mechanically coupled curtains |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Crank | Motor | max. 2 Crank | max. 3 <br> Motor |
| Min. width (mm) |  | 500 | 625 | 500 | $690{ }^{1)}$ |
| Max. width (mm) | Acrylic - all qualities - | 3000 | 4000 | 5000 | 12000 |
|  | Screen | 3000 | 3000 | 5000 | 7500 |
|  | Soltis-92 | 3000 | 4000 | 5000 | 12000 |
|  | Twilight Pearl/Metal | 2500 | 2500 | 5000 | 7500 |
|  | WAREMA SecuTex fabric A2 | 2400 | 2400 | 4800 | 7200 |
| Max. height (mm) | Acrylic - all qualities - | 3500 | 3500 | 3500 | 3500 |
|  | Screen | 3000 | 3500 | 3000 | 3500 |
|  | Soltis-92 | 3000 | 3500 | 3000 | 3500 |
|  | Twilight Pearl/Metal | 3000 | 3000 | 3000 | 3000 |
|  | WAREMA SecuTex fabric A2 | 2700 | 2700 | 2700 | 2700 |
| Max. area ${ }^{2)}$ <br> ( $\mathrm{m}^{2}$ ) | Acrylic - all qualities - | 10.5 | 14.0 | 17.5 | 42.0 |
|  | Screen | 9.0 | 10.5 | 15.0 | 26.3 |
|  | Soltis-92 | 9.0 | 14.0 | 15.0 | 42.0 |
|  | Twilight Pearl/Metal | 7.5 | 7.5 | 15.0 | 22.5 |
|  | WAREMA SecuTex fabric A2 | 6.5 | 6.5 | 13.0 | 19.4 |

[^0]
## Markisolette 101

Distances and number of brackets

|  | Distances of brackets in mm |  |  |  |  | Number of brackets for rail lengths in mm <br> Number of brackets |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | a |  | $\frac{\mathrm{b}}{\max .}$ | $\frac{\mathrm{c}}{\mathrm{~min} .}$ | max. |  |  |  |
|  | min. | max. |  |  |  | 2 to | 3 to | 4 to |
| $\varnothing 40$ | 180 | 300 | 2300 | 70 | 350 | 2500 | 4800 | 6000 |
| $20 \times 40$ | 180 | 300 | 2000 | 70 | 300 | 2300 | 4300 | 6000 |
| $38 \times 40$ | 180 | 300 | 2000 | 70 | 300 | 2300 | 4300 | 6000 |

## Application example

## Markisolette 101

with half-round cover panel type 2.3
Round guide rail ø $\mathbf{4 0} \mathbf{~ m m}$

fig. 245: Markisolette 101, with half-round cover panel type 2.3

Markisolette 101
in on-site channel - right rolling blind
Round guide rail $\varnothing \mathbf{\boxed { 0 }} \mathbf{~ m m}$
Attention! This is a principle sketch which has to be adapted to the respective on-site situation by a mounting example from our Applied Engineering department.

fig. 246: Markisolette 101, in on-site channel - right rolling blind

## Application example

Markisolette 101
with half-round cover panel type 2.3
Round guide rail ø $\mathbf{4 0} \mathbf{~ m m}$

fig. 247: Markisolette 101, with half-round cover panel type 2.3

## Markisolette 101

in on-site channel - right rolling blind
Round guide rail $\boldsymbol{\varnothing} \mathbf{4 0} \mathbf{~ m m}$
Attention! This is a principle sketch which has to be adapted to the respective on-site situation by a mounting example from our Applied Engineering department.

fig. 248: Markisolette 101, in on-site channel - right rolling blind

## Application example

Markisolette 101
in on-site channel,
C guide rail $20 \times 40 \mathrm{~mm}$ or $\mathbf{3 8} \times \mathbf{4 0} \mathbf{~ m m}$
Attention! This is a principle sketch which has to be adapted to the respective on-site situation by a mounting example from our Applied Engineering department.

fig. 249: Markisolette 101, in on-site channel, C guide rail $20 \times 40 \mathrm{~mm}$ or $38 \times 40 \mathrm{~mm}$

Fabric deductions
fig．250：Details of guide rails 20／40 and 38／40－fabric deductions for type 101

fig．251：Details of guide rail $\varnothing 40 \mathrm{~mm}$－fabric deduction measurements for type 101


fig. 253: Markisolette 109
1 Cover panel
2 Fabric shaft
3 Fabric
4 Lateral guidance
5 Projection system
5.1 Connecting rail
5.2 Drop arm
5.3 Pressure spring
5.4 Windlock mechanism

6 Drop profile
7 Guiding tube

## Application

Textile external sun shading system, compact design with projection effect for shading vertical facade areas, e.g. transom and mullion facades.
A part of the fabric remains parallel to the glass.

## Operation

## Basic motor, 230 V, 50 Hz

LT50 with mechanical limit switch-off (optionally with

## EWFS/WMS plug receiver)

EWFS radio motor, $230 \mathrm{~V}, 50 \mathrm{~Hz}$ (optional)
W-MP with electronic limit switch-off
WMS radio motor, $230 \mathrm{~V}, 50 \mathrm{~Hz}$ (optional)
WMS-MP with electronic limit switch-off
More information about drives from page 218.

## Crank

Screw gear with crank rod and collapsible crank; sealed joint plate and square with patented thermal barrier.
Material: aluminium
Surface: C0 anodised

Ratio:
Crank holder:
6:1
plastic (grey, white or brown), crank holder with magnet optional
The fabric shaft contains a spindle lock to provide a lower limit for the extension of the fabric.
Mechanical coupling may result in displacement of the drop profiles by $\pm 20 \mathrm{~mm}$ (coupling play).

Cover panels (1)
Half-round cover panel, curved aluminium
Material: curved aluminium
Material thickness: 2 mm
Dimensions ( $\mathrm{H} \times \mathrm{D}$ ): $143 \times 116 \mathrm{~mm}$ (type 20.3)
Dimensions (r): inside 56 mm
Max. individual length: 2500 mm
Surface: powder-coated, optionally anodised
Round cover panel, extruded aluminium
two-piece
Material: aluminium, extruded
Material thickness: 2 mm
Dimensions (H×D): $111 \times 111 \mathrm{~mm}$ (type 23.3)
Dimensions ( r ): inside 53.5 mm
Surface: powder-coated, anodising optional

fig. 254: Cover panels

## Fabric shaft (2)

Material: aluminium, extruded
Material thickness: 1.5 mm
Dimensions ( $\varnothing$ ): 62 mm
Profile: groove tube
Surface: plain
Fixing: can be clamped to the guide rail using fabric shaft consoles or wall-mounted
With piping groove for fixing the fabric.

## Fabric (3)

Fabric qualities: Standard/Lumera acrylic Perfora/All Weather acrylic
Soltis-92
Screen
Twilight Pearl/Metal
WAREMA SecuTex fabric A2
More information about the fabrics on page 214
Designs: according to current WAREMA collection
Special fabrics not included in our current collection are only available upon request and at a surcharge.

| Lateral guidance (4) |  |
| :---: | :---: |
| Rail |  |
| Round profile |  |
| Material: | aluminium, extruded |
| Dimensions ( $\varnothing$ ): | 35 mm |
| Profile: | round profile with mounting groove |
| Surface: | powder-coated, optionally anodised |
| End cap: | plastic, black |
| Fixing: | guide rail bracket, two-piece, aluminium |
| C profile |  |
| Material: | aluminium, extruded |
| Material thickness: 2 | 2 mm |
| Dimensions (W×H): | 20/38 $\times 40 \mathrm{~mm}$ |
| Profile: | C profile with mounting groove |
| Surface: | powder-coated, optionally anodised |
| Fixing: | guide rail bracket, two-piece, aluminium |
| End cap: | plastic, black |
|  |  |

fig. 255: Guide profiles

## Projection system (5)

## Connecting rail (5.1)

Material: aluminium
Material thickness: 5 mm
Dimension (B): $\quad 25 \mathrm{~mm}$
Profile: flat profile
Surface: powder-coated, optionally anodised
Slider:
Drop arm (5.2)
Material: aluminium
Material thickness: 4 mm
Dimensions $(\mathrm{W} \times \mathrm{H}): 30 \times 20 \mathrm{~mm}$
Profile: angle-shaped profile
Surface: powder-coated, optionally anodised
Projection angle: circular up to $150^{\circ}$
Projection: $\quad 511 \mathrm{~m}$
Windlock mechanism (5.3)
Includes height-adjustable windlock mechanism in the guide rail for additional locking
against gusts of wind.
Effective at projection angles of $90^{\circ}-150^{\circ}$.

## Drop profile (6)

Material: aluminium, extruded
Material thickness: 1.75 mm
Dimensions (Ø): $\quad 27.5 \mathrm{~mm}$
Profile: round profile, mounting groove optional
Surface: powder-coated, optionally anodised
Available as models "visible" (standard) or "concealed in fabric" (optional).
To provide optimal fabric tension and wind protection the drop profile is weighted down with galvanised steel profiles.

## Guiding tube (7)

Material: aluminium, extruded
Material thickness: 1.75 mm
Dimensions (Ø): $\quad 27.5 \mathrm{~mm}$
Profile: round tube
Surface: powder-coated, optionally anodised
The guiding tube is fixed to the lateral connecting rails and locked using stainless steel bearing bolts.

Connecting and fixing parts
Within the units
Material:
A2 steel or aluminium
Weights

fig. 256: Diagram for weight assessment

## Description

## Markisolette 109

## Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours, four anodised-look colours (WC31 - WC34) and further colours according to WAREMA Colour World (in WAREMA colour specification). Other colour specifications, special colours or anodisation are available subject to surcharge.
For anodised markisolettes the visible cast aluminium parts are powder-coated to match the anodised colour.

## General note

For transom and mullion facades, markisolettes with motor drives should be preferred over crank drives, since the gear outlet goes through the facade and placement of the drilled holes can often be difficult.


Notes:

- Soltis 92 fabrics are bonded crosswise for order widths starting at 1800 mm .
- All units should then be used crosswise on the facade in order to give a uniform appearance across the entire building.
- Acrylic fabrics with an order width of more than 1200 mm are made from several individual lengths of fabric.
fig. 257: Measuring instructions for Markisolette 109

Use our free planning program at www.sunshadingplanner.com to plan your sun shading
systems - here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

|  | Type of fabric | Individual unit |  | Mechanically coupled curtains |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Crank | Motor | Crank max. 2 | Motor max. 3 |
| Min. width ${ }^{1)}$ (mm) |  | 500 | 630 | 500 | 630 |
| Max. width (mm) | Acrylic - all qualities - | 2500 | 2500 | 3000 | 7500 |
|  | Screen | 2500 | 2500 | 3000 | 7500 |
|  | Soltis-92 | 2500 | 2500 | 3000 | 7500 |
|  | Twilight Pearl/Metal | 2500 | 2500 | 3000 | 7500 |
|  | WAREMA SecuTex fabric A2 | 2000 | 2000 | 3000 | 6000 |
| Max. height (mm) | Acrylic - all qualities - | 2700 | 2700 | 2700 | 2700 |
|  | Screen | 3000 | 3000 | 3000 | 3000 |
|  | Soltis-92 | 3000 | 3000 | 3000 | 3000 |
|  | Twilight Pearl/Metal | 3000 | 3000 | 3000 | 3000 |
|  | WAREMA SecuTex fabric A2 | 2700 | 2700 | 2700 | 2700 |
| Max. area ( $\mathrm{m}^{2}$ ) | Acrylic - all qualities - | 6.8 | 6.8 | 8.1 | 20.3 |
|  | Screen | 7.5 | 7.5 | 9.0 | 22.5 |
|  | Soltis-92 | 7.5 | 7.5 | 9.0 | 22.5 |
|  | Twilight Pearl/Metal | 7.5 | 7.5 | 9.0 | 22.5 |
|  | WAREMA SecuTex fabric A2 | 5.4 | 5.4 | 8.1 | 16.2 |

[^1]
## Markisolette 109

Distances and number of brackets

| Rails | Distances of brackets in mm |  |  |  |  | Number of brackets for rail lengths in mm |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | a |  | b | c |  |  |  |  |
|  | min. | max. | max. | min. | max. | 2 to | 3 to | 4 to |
| $\varnothing 35$ |  |  |  |  |  |  |  |  |
| $20 \times 40$ | 150 | 250 | 2000 | 70 | 300 | 2300 | 4300 | 6000 |
| $38 \times 40$ |  |  |  |  |  |  |  |  |

## Application example

Markisolette 109
Cover panel type 23.3
with guide rail $20 \times 40 \mathrm{~mm}$, gear 6:1

fig. 258: Markisolette 109 with guide rail $20 \times 40 \mathrm{~mm}$, gear 6:1; cover panel type 23.3

Markisolette 109
Cover panel type 20.3
Guide rail $20 \times \mathbf{4 0} \mathbf{~ m m}$

fig. 259: Markisolette 109 with guide rail $20 \times 40 \mathrm{~mm}$, cover panel type 20.3

Markisolette 109
Cover panel type 23.3
Round guide rail $\varnothing 35$ mm,

fig. 260: Markisolette 109 with round guide rail, $\varnothing 35 \mathrm{~mm}$, cover panel type 23.3

Markisolette 109
Cover panel type 20.3
Round guide rail Ø35 mm


Fabric deductions Gear outlet

Drop tube $\varnothing 27.5$ aluminium for markisolette type 109


Note:
The given dimensions change when the position of the fabric shaft console is moved
Observe drive area and bearing/coupling!
fig. 262: Fabric deductions for type 109

fig. 263: Type 109 and 209, cover panel 20.3. Possible degree values for gear 6:1.

fig. 264: Type 109 and 209 cover panel 23.3. Possible degree values for gear 6:1.

fig. 265: Markisolette 150

```
1 Cover panel
2 ~ F a b r i c ~ s h a f t
3 Fabric
4 \text { Lateral guidance}
5 Projection system
    5.1 Connecting rail
    5.2 Drop arm
    5.3 Pressure spring
    5.4 Windlock mechanism
    Drop profile
7 \text { Guiding tube}
```


## Application

Textile external sun shading system with projection effect for shading vertical punched or element windows as well as for direct installation in the reveals (sheltered from the wind). The upper part of the fabric remains parallel to the glass.

## Operation

Basic motor, 230 V, 50 Hz
LS40/LT50 with mechanical limit switch-off (optionally with EWFS/WMS plug receiver)
Plug-in connector: loose, optionally without (cable whip 2500 mm ) or optionally with wired Hirschmann coupling (motor line 0.4 m)

More information about drives from page 218.

## Crank

Screw gear with crank rod and collapsible crank;

| Material: | aluminium |
| :--- | :--- |
| Surface: | C0 anodised |
| Ratio: | $3.5: 1$ |
| Crank holder: | plastic (grey, white or brown), crank <br> holder with magnet optional |

A spindle lock is optionally built in to the fabric shaft to provide a lower limit for the extension of the fabric.
Mechanical coupling may result in displacement of the projection profiles by $\pm 20 \mathrm{~mm}$ (coupling play).

## Cover panels (1)

Closed on 3 sides
Material: aluminium, extruded
Material thickness: 1.6 mm
Dimensions ( $\mathrm{W} \times \mathrm{H}$ ): $80 \times 93 \mathrm{~mm}$ or $100 \times 114 \mathrm{~mm}$
Surface: powder-coated, C0 anodising optional
Fixing: using push-on aluminium consoles
Side covers: diecast aluminium, powder-coated
Can only be coupled with continuous cover panels.

fig. 266: Cover panels

## Fabric shaft (2)

Material: $\quad$ aluminium, extruded
Material thickness: 1.5 mm
Dimensions ( $\varnothing$ ): $\quad$ crank drive 35 mm
Motor drive, 50 mm or 62 mm depending on cover panel sizes
Profile: groove tube
Surface: plain
Fixing:
fabric shaft consoles for placing on the rail or wall installation
Fabric shaft consoles can be clipped to the rail With piping groove for fixing the fabric.

## Fabric (3)

| Fabric qualities: | Standard/Lumera acrylic <br> Perfora/All Weather acrylic <br>  <br> Soltis-92 |
| :--- | :--- |
|  | Screen |
|  | Twilight Pearl/Metal |
|  | WAREMA SecuTex fabric A2 <br> More information about the fabrics on <br> page 214 <br> according to current WAREMA <br> collection |

Special fabrics not included in our current collection are only available upon request and at a surcharge.

| Lateral guidance (4) |  |
| :---: | :---: |
| Rail |  |
| C profile |  |
| Material: | aluminium, extruded |
| Dimensions ( $\mathrm{W} \times \mathrm{D}$ ): | $20 \times 40 \mathrm{~mm}$ or $38 \times 40 \mathrm{~mm}$ |
| Profile: | C-shaped profile |
| Surface: | powder-coated, CO anodising optional |
| Fixing: | without spacing on the window frame or on the wall |

The guiding tube is fixed to the lateral connecting rails and locked using aluminium bearing bolts.

## Connecting and fixing parts

Within the markisolettes
Material:
A2 steel or aluminium
Weight table

fig. 268: Weight type 150

## Colours

Aluminium parts powder-coated with chrome-free pre-treatment in RAL 9006, RAL 9016 and RAL 8016, satin finish, C0 anodising optional. Optional powder coating of the aluminium parts in accordance with valid RAL CLASSIC colour chart (except for camouflage and luminous colours) or in six DB and also eight textured colours, four anodisedlook colours (WC31 - WC34) and further colours according to the WAREMA Colour World (in WAREMA colour specification).
Other colour specifications, special colours and colour anodising are available on request at a surcharge.
For anodised markisolettes the visible cast aluminium parts are powder-coated to match the anodised colour.

## General note

For transom and mullion facades, markisolettes with motor drives should be preferred over crank drives, since the gear outlet goes through the facade and placement of the drilled holes can often be difficult.
Type 150 is especially suited for punched windows, window bands and reveal installation.

## Drop profile (6)

Material: aluminium, extruded
Material thickness: 1.75 mm
Dimensions ( $\varnothing$ ): $\quad 27.5 \mathrm{~mm}$
Profile: round profile, mounting groove optional
Surface: powder-coated, C0 anodising optional
Available as models "visible" (standard) or "concealed in fabric" (optional).
To provide optimal fabric tension and wind protection the drop profile is weighted down with galvanised steel profiles.

## Guiding tube (7)

Material: aluminium, extruded
Material thickness: 1.75 mm
Dimensions ( $\varnothing$ ): $\quad 27.5 \mathrm{~mm}$
Profile: round tube
Surface: powder-coated

fig. 269: Measuring instructions for Markisolette 150

## Notes:

- Soltis 92 fabrics are bonded crosswise for order widths starting at 1800 mm .
- All units should then be used crosswise on the facade in order to give a uniform appearance across the entire building.
- Acrylic fabrics with an order width of more than 1200 mm are made from several individual lengths of fabric.


## Markisolette 150

Use our free planning program at www.sunshadingplanner.com to plan your sun shading
systems - here you can configure the product and create a technical drawing to be integrated into your plans.

## Construction limit values

|  | Type of fabric | Individual unit |  |  |  | Coupled (max. 2 curtains) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { Cover panel size } \\ 80 \end{gathered}$ |  | $\begin{gathered} \hline \text { Cover panel size } \\ 100 \end{gathered}$ |  | $\begin{gathered} \text { Cover panel size } \\ 80 \end{gathered}$ |  | $\begin{gathered} \hline \text { Cover panel size } \\ 100 \end{gathered}$ |  |
|  |  | Crank | Motor ${ }^{1}$ | Crank | Motor1) | Crank | Motor ${ }^{11}$ | Crank | Motor ${ }^{1}$ |
| Min. width ${ }^{2)}$ (mm) |  | 500 | 600 | 500 | 630 | 500 | 600 | 500 | $630^{3)}$ |
| Max. width (mm) | Acrylic - all qualities - | 2400 | 2500 | 2400 | 2500 | 2800 | 4000 | 2800 | 5000 |
|  | Screen | 2400 | 2500 | 2400 | 2500 | 2800 | 4000 | 2800 | 5000 |
|  | Soltis-92 | 2400 | 2500 | 2400 | 2500 | 2800 | 4000 | 2800 | 5000 |
|  | Twilight Pearl/Metal | 2400 | 2500 | 2400 | 2500 | 2800 | 4000 | 2800 | 5000 |
|  | WAREMA SecuTex fabric A2 | 2000 | 2000 | 2000 | 2000 | 2800 | 4000 | 2800 | 4000 |
| Max. height (mm) | Acrylic - all qualities -4) | 1700 | 1500 | 2500 | 2600 | 1700 | 1500 | 2500 | 2600 |
|  | Screen | 2700 | 2400 | 2700 | 2900 | 2700 | 2400 | 2700 | 2900 |
|  | Soltis-92 | 2700 | 2900 | 2700 | 2900 | 2700 | 2900 | 2700 | 2900 |
|  | Twilight Pearl/Metal | 2700 | 2400 | 2700 | 2900 | 2700 | 2400 | 2700 | 2900 |
|  | WAREMA SecuTex fabric A2 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 |
| $\begin{aligned} & \text { Max. area }{ }^{5} \\ & \left(m^{2}\right) \end{aligned}$ | Acrylic - all qualities - | 4.1 | 3.8 | 6.0 | 6.5 | 4.8 | 6.0 | 7.0 | 13.0 |
|  | Screen | 6.5 | 6.0 | 6.5 | 7.3 | 7.6 | 9.6 | 7.6 | 14.5 |
|  | Soltis-92 | 6.5 | 7.3 | 6.5 | 7.3 | 7.6 | 11.6 | 7.6 | 14.5 |
|  | Twilight Pearl/Metal | 6.5 | 6.0 | 6.5 | 7.3 | 7.6 | 9.6 | 7.6 | 14.5 |
|  | WAREMA SecuTex fabric A2 | 5.4 | 5.4 | 5.4 | 5.4 | 7.6 | 10.8 | 7.6 | 10.8 |

[^2]Guide rail drilled holes
$\begin{aligned} & \text { FSCH } 20 \times 40 \\ & \text { Drilled hole } 1 \\ & \text { Reveal installation }\end{aligned}$
$\begin{array}{lll}\text { D FSCH 40x38 } \\ \text { Drilled hole 2 } \\ \text { only wall installation possible! }\end{array}$
Drilled hole 2
fig. 270: Guide rail drilled holes (wall and reveal) type 150

## Guide rail brackets


fig. 271: Guide rail $40 \times 20$ with bracket no. 7

## Guide rail bracket No. 8



| FS | Distance "A" <br> in $\mathbf{m m}$ | Length of <br> bracing "X" | Art. no. | Shifting <br> range |
| :---: | :---: | :---: | :---: | :---: |
| C | 70 | 25 | $101074 \mathrm{w} /$ thread | $+2.5-4.5$ |
| C | 80 | 35 | $2012111 \mathrm{w} /$ thread | $+2.5-4.5$ |
| C | 90 | 45 | $2012112 \mathrm{w} /$ thread | $+2.5-4.5$ |
| C | 100 | 55 | $2012113 \mathrm{w} /$ thread | $+2.5-4.5$ |
| C | max. 145 | 100 | $101045 \mathrm{w} / \mathrm{o} \mathrm{thread}$ | $+2.5-4.5$ |
|  |  |  |  | N |
| N |  |  |  |  |
| N |  |  |  |  |

fig. 272: Guide rail $40 \times 20$ with bracket no. 8

## Application example

Markisolette 150
Cover panel 100
Guide rail $20 \times 40 \mathrm{~mm}$


fig. 273: Markisolette 150 with guide rail $20 \times 40 \mathrm{~mm}$; cover panel 100

fig. 274: Markisolette 150 with guide rail $20 \times 40 \mathrm{~mm}$; cover panel 100

## Application example

Markisolette 150

## in on-site shaft


fig. 275: Markisolette 150 with guide rail $20 \times 40 \mathrm{~mm}$; cover panel 80 in shaft

## Application example

## Markisolette 150 <br> Stand-off installation

Attention: when using cover panels which are closed on 3 sides in a model with guide rail brackets, weathering and/ or soiling of the fabric bale may occur.

fig. 276: Markisolette 150 with guide rail $20 \times 40 \mathrm{~mm}$; cover panel 100 ; bracket no. 8

## Markisolette 150

## Stand-off installation

Attention: when using cover panels which are closed on 3 sides in a model with guide rail brackets, weathering and/ or soiling of the fabric bale may occur.
fig. 277: Markisolette 150 with guide rail $20 \times 40 \mathrm{~mm}$; cover panel 100 ; bracket no. 7


[^0]:    ) for unit with motor
    2) The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 18)

[^1]:    Smaller widths are possible after consultation with the Applied Engineering department

[^2]:    Radio motors not possible (alternative: plug receiver)
    2) Smaller widths are possible after consultation with the Applied Engineering department!
    3) for unit with motor
    4) Glued fabric connection optional for Standard and Perfora qualities. Max. height reduced by 200 mm .
    5) The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 18).

