

Two strong ones from weinor's conservatory awning family



We reserve the right to make technical alterations. December 2006

Conservatory awnings
WGM
2030/2020
Design





WGM 2030 Design



WGM 2020 Design multi-section curved unit with WGM 2030 single section flat unit

The top awnings

They are flexible and can be fitted to almost any conservatory: the **WGM 2020 Design** and **2030 Design**. Whether flat, curved, multi-section or multi-section curved units, both these models are good looking high-tech shades from weinor's conservatory awning family.

Technical Details

Max. sizes

WGM 2030 Design flat unit

- Single section: Axial dimension (width) up to 650 cm
Projection up to 650 cm
- Multi section: Axial dimension (width) up to 2000 cm
Projection up to 650 cm

WGM 2020 Design curved unit

- Single section: Axial dimension up to 500 cm
Projection up to 600 cm
- Multi section: Axial dimension up to 1200 cm
Projection up to 600 cm

Technical equipment

- Guaranteed smooth-running combination of winding and guiding technology (European patent No. EP 0546297)
- Service friendly circular tensioning system (European patent No. EP 000000559959A3) with

TEX cord, patented cord coiling mechanism built into the outer rail and pre-tensioned

- Removable inspection cover
- Light tensioning with gear mechanism in the outer rail
- Patented carriage system for one-sided winds (angled up to 10°)
- Gutter built into outer rail
- Protective brushes keep heavy rain out of the casing
- Casing overhangs only 19 mm to the side
- Intelligent coupling system for multi-section units
- Large selection of support brackets
- Distance bars for wider units and ones with longer projection

Pattern

- Large selection of fabrics from the current weinor collections

Powder coating

- In 47 standard colours

- 6 standard contrasting colours for top and outer rail end caps
- Surface permanently resistant to scratching and weather
- Maintenance-free, rust-free, reliable

Drive

- Motor as standard

Options

Drive

- Remote control

Controls

- Sun and wind monitors
- Automatic rain sensor

Accessories

- Heating system Tempura
- Light Bar Lux

The technical product highlights of the WGM 2030/2020 Design



WGM 2030 Design

Little casing overhang

With its slim casing whose side caps only overhang by 19 mm, the **WGM 2030** is also suitable for fitting in difficult places, e.g. in niches.

The cover caps

are of high quality cast aluminium and give the side channels of the **WGM 2030/2020 Design** an elegant look when closed. Their shape and colour harmonises with the awning casing cover caps.



Gutter in outer rail

The gutter

Should the **WGM 2030/2020 Design** get wet in driving rain, the rainwater runs off to the sides in a controlled manner, just as off a roof of suitable pitch.



Protective brushes in the awning casing

Protective brushes

In heavy rain the protective brushes stop water getting into the cassette, especially when the **WGM 2030/2020 Design** is not fitted at an angle but rather horizontally, e.g. with a minimum pitch angle of 5°.



*Thanks to the carriage system, the **WGM 2030** and **2020 Design** open and retract very quietly*

The carriage system

Precision rollers reduce the friction considerably. This means that opening and retracting are extremely quiet.
(European patent No. EP 0545062)



Example: support bracket "Gothic"

The support brackets

A wide selection of different support brackets is available for the conservatory awning. It is even possible to fit them in awkward locations.

The technical product highlights of the WGM 2030/2020 Design



Open outer rail with patented tensioning system

The tensioning system

Its simple but at the same time robust design is simply captivating. The Tex cord, developed for ocean sailing, does not stretch and is both tear and tension proof. The combination of winding and guiding technology ensures that the cord is wound quietly in a controlled manner. The tensioning mechanism is easily accessible and service friendly in the outer rail.

The tension in the fabric can be adjusted simply with an Allen key. The refined technology ensures that the fabric stays permanently taut. (Patent applied for P 4207821.0)



Patented cord drum and slider

When the **WGM 2030** flat units are delivered, the cord is already threaded into the outer rail and in the end cap.



Fabric tension can be adjusted easily



WGM 2030 with threaded cord

The technical product highlights of the WGM 2020 Design curved unit



Open single section **WGM 2020 Design** curved unit



Retracted single section **WGM 2020 Design** curved unit



The cord is guided through the area of the bend

Horizontal and vertical shade in one unit

The **WGM 2020 Design** was designed to provide vertical and horizontal shade in conservatories. The only other way to do this is with **WGM 2030 Design** flat units in combination with **Aruba** window awnings. Depending on the dimensions of the conservatory to be covered, the WGM curved unit is the best solution.

The carriage system

The patented carriage system plays a particularly important role on the curved unit because the cord is led precisely through the bend. (Patent No. EP 054062)

Distance bars

The fabric is fed through the bend over 1 to 3 distance bars, depending on the angle of bend. The standard internal radius of the bend is 300 mm.



Distance bars in the area of the bend

Cord guides

guarantee that the **WGM 2020 Design** curved unit will function perfectly.



Support bracket at the joint



Distance bar brackets round off the elegant looks of the curved unit

Multi-section side channels

The guide rails of curved units may be in several parts. If so, the support brackets should be placed at the joints.

The technical product highlights of the WGM 2030/2020 Design



Coupled 2-section WGM 2030 Design unit, view of whole unit, open...



... and retracted

Flat and curved multi-section and series-connected units

Both with bend (**WGM 2020 Design**) and without bend (**WGM 2030 Design**) coupled as multi-section units are the ideal shades for even the largest conservatories.

Fabric rolled out the same distance

The precision rollers in the carriage and the patented coupling system ensure that the fabric in all sections opens the same distance. The fabric sections open and retract together. That is one of the amazing technical highlights.



WGM 2020 Design series-connected unit with one motor for each section



WGM 2030 Design series-connected unit with differing projections, with one motor for each section

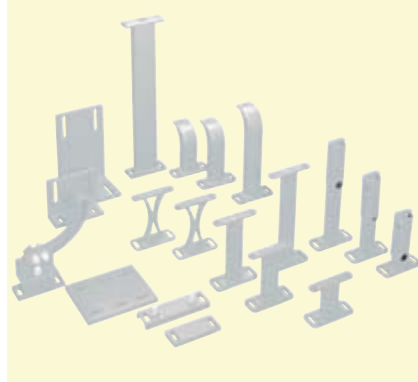
The series-connected unit

is an alternative to the multi-section unit with double side channels. A series-connected unit is several units side-by-side which are not coupled, each with its own motor drive. Attachment brackets are used to join the individual side channels and are fixed centrally on the conservatory section.

The technical product highlights of the WGM 2030/2020 Design



Coupling between the fabric rollers. They can be adjusted with only an Allen key



Wide variety of brackets for individual shade locations

Coupling of multi-section units

Above a certain size, two individual units are coupled and driven by one motor using a double side channel. The coupling system makes the fabric sections of multi-section units infinitely adjustable. Equal lengths of fabric look good. They can be adjusted at any time.

Fitting the second casing with a fabric roller and the infinite adjustment of the fabric is particularly simple. The left half of the unit is fitted first. The advantages of fitting the tensioning system remain.

Brackets, support brackets and angle brackets

There are a variety of different brackets available for all versions of the WGM 2030/2020 Design.

Be it a curved unit, curved unit with solar bend, curved unit with special radius, flat unit or multi-

section unit – there is a suitable weinor solution for every shady problem, no matter how complicated. From the universal support bracket to the “modern” support bracket, in a variety of heights. (Please also see the current weinor price list.)



Universal support bracket



X-shaped support bracket



Optically identical, both awnings open the same distance



Standard support bracket “Gothic”



Standard support bracket “Modern”

Product benefits at a glance

Designation	Material	Surface treatment	Qualities	Your advantages
Casing section Outer rail Guide section Support bar	Aluminium, extruded	Chrome-free pre-treated, powder coated	Surface permanently resistant to scratching and weather	You choose the powder coating colour for your awning to suit your conservatory. Pre-treating the profiles prevents corrosion altogether, even on damaged surfaces.
Bends	Aluminium, extruded	Chrome-free pre-treated, powder coated	Surface permanently resistant to scratching and weather	Secure function due to cord guides in the area of the bend.
Cord in tensioning system	Tex cord as used in ocean racing			Robust, tear and tension proof, runs quietly
Patented tensioning system	With angle drive for tensioning			Easily accessible and can be adjusted at any time
Patented coiling and guiding system	Cord drum of high grade plastic Sliders: plastic, stainless steel			Controlled and quiet winding
Gutter in outer section	Aluminium, extruded	Chrome-free pre-treated, powder coated	Surface permanently resistant to scratching and weather	Rainwater runs off to the sides in the gutter.
Support brackets Fixing brackets	Aluminium, extruded or cast aluminium	Machine-edged, chrome-free pre-treated, powder coated	Surface permanently protected	Rust protection, down to the last detail
Casing and outer rail end caps	Plastic Cast aluminium	In 6 standard coloured coatings	Surface permanently weather-resistant	Choose the colours for the end caps to match the fabric, the conservatory or tone-in-tone.

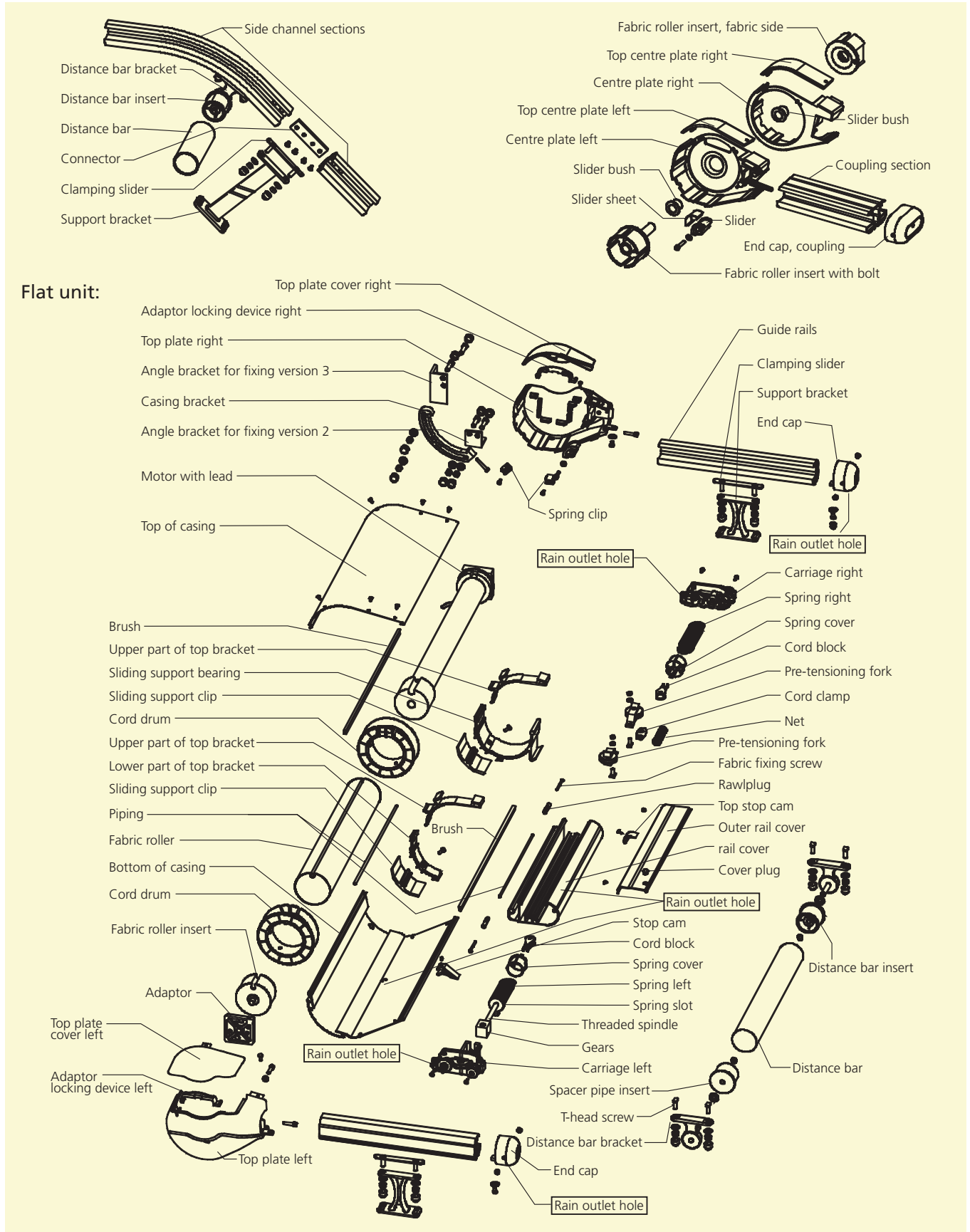
Product benefits at a glance

Designation	Material	Surface treatment	Qualities	Your advantages
Screws	Stainless steel		Non-corrosive	No rust, no appreciable wear and tear
Awning material	Acrylic		Spin-jet dyed, impregnated	The weinor fabric collection offers a wide variety of sophisticated patterns.
Drive motor			Precisely manufactured robust design	The awning is opened and retracted by an electric tubular motor housed in the fabric roller which can be operated, for example, by a wall switch.

Overview of product options

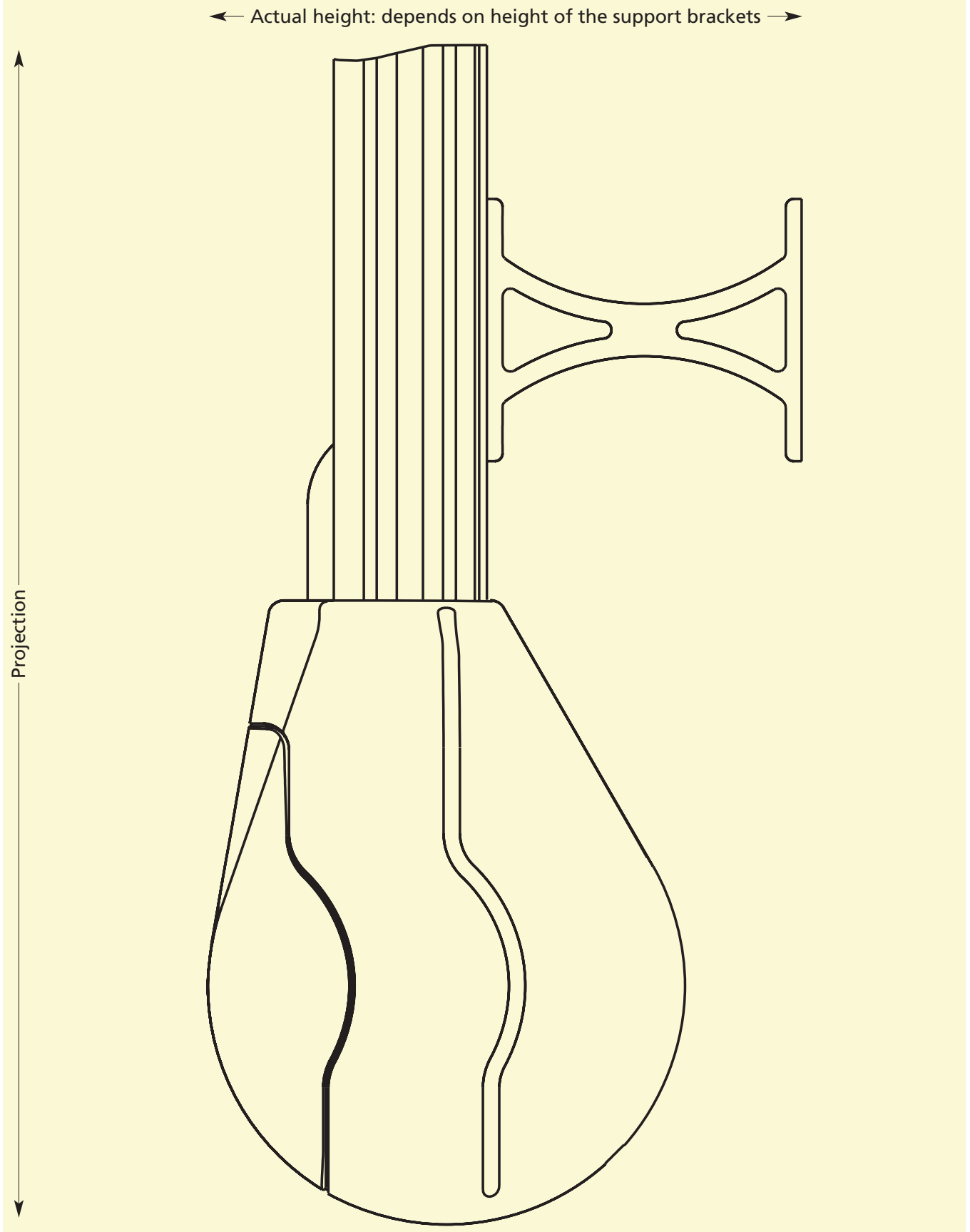
Designation	Material	Surface treatment	Qualities	Your advantages
Awning fabric from external suppliers	Acrylic	Spin-jet dyed, impregnated	Warp printed, watertight	Even greater selection of unicolour and striped fabrics.
	Soltis 92	Specially coated polyester fibre	Microvented, light permeable	Light and wind permeable sun protection
Remote-controlled drive				On request, an integrated tubular motor with WeiTronic receiver can be fitted. The WeiTronic Remoto handheld remote control makes for easy operation of the awning. See the WeiTronic section for details.

Exploded drawing of the WGM 2030/2020 Design



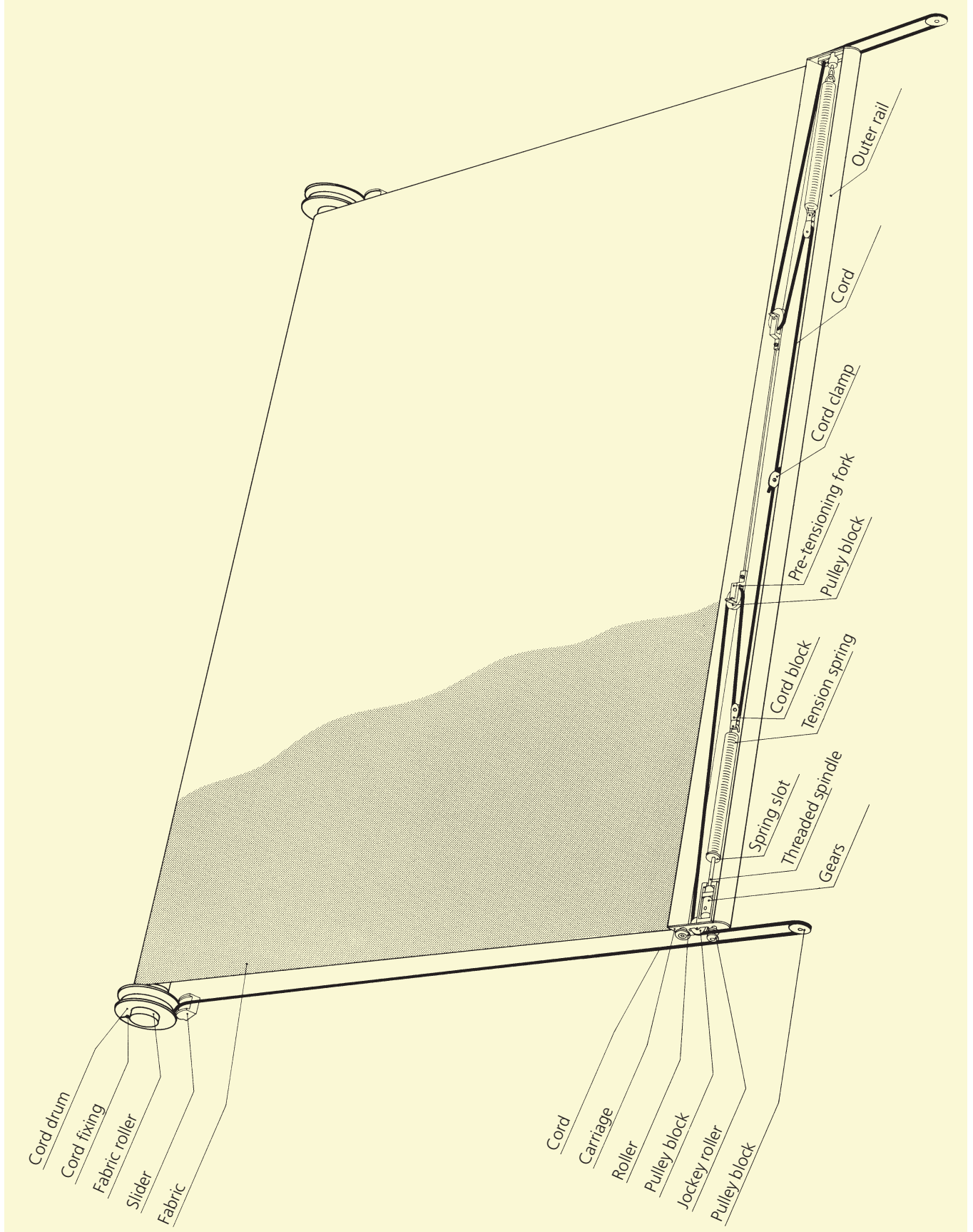
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Cross-sectional drawing, WGM 2030/2020 Design – not to scale

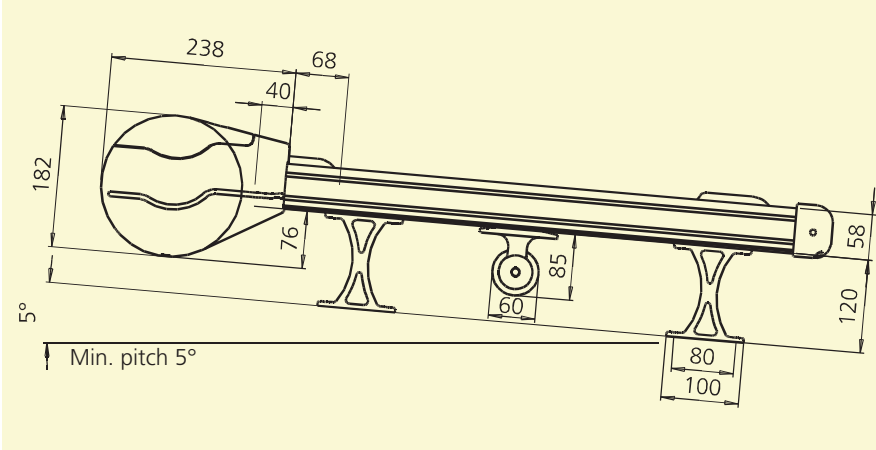


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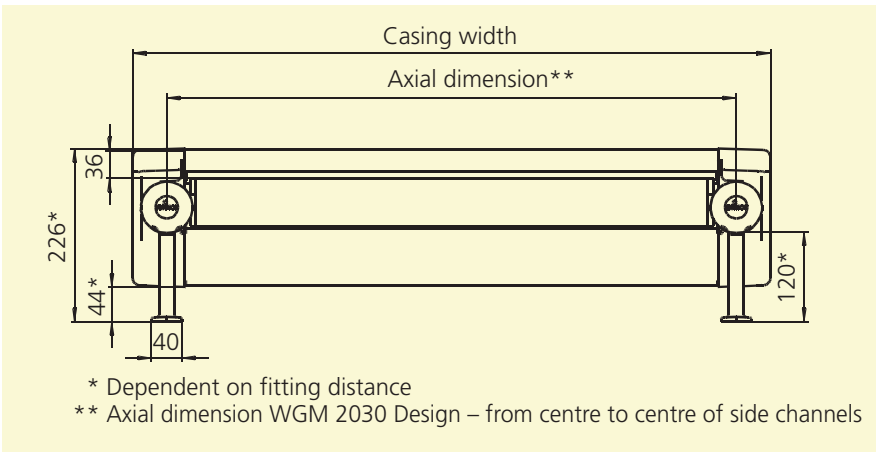
Functional drawing, WGM 2030 Design single section units



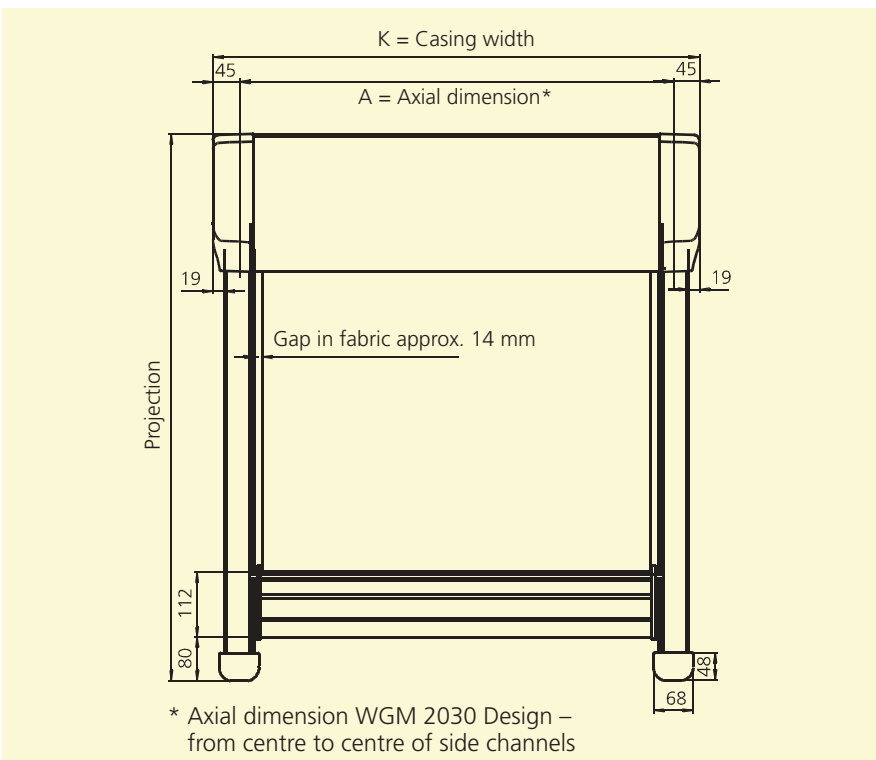
Overall views



Viewed from side
WGM 2030 Design 0-1-1
 Single section flat unit with 1 motor. When establishing the fixing height, check for any opening windows, gutters, etc.

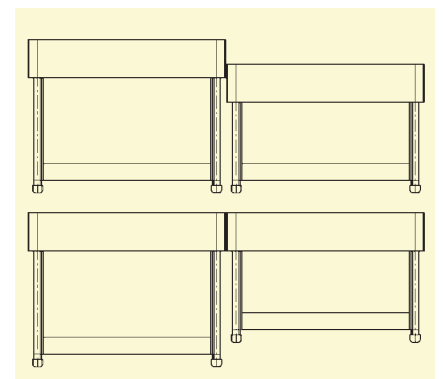


Viewed from front
WGM 2030 Design 0-1-1
 Single section flat unit with 1 motor



Viewed from above
WGM 2030 Design 0-1-1
 Single section flat unit with 1 motor

Series-connected units viewed from above
 Series-connected units with differing projections are also technically feasible.

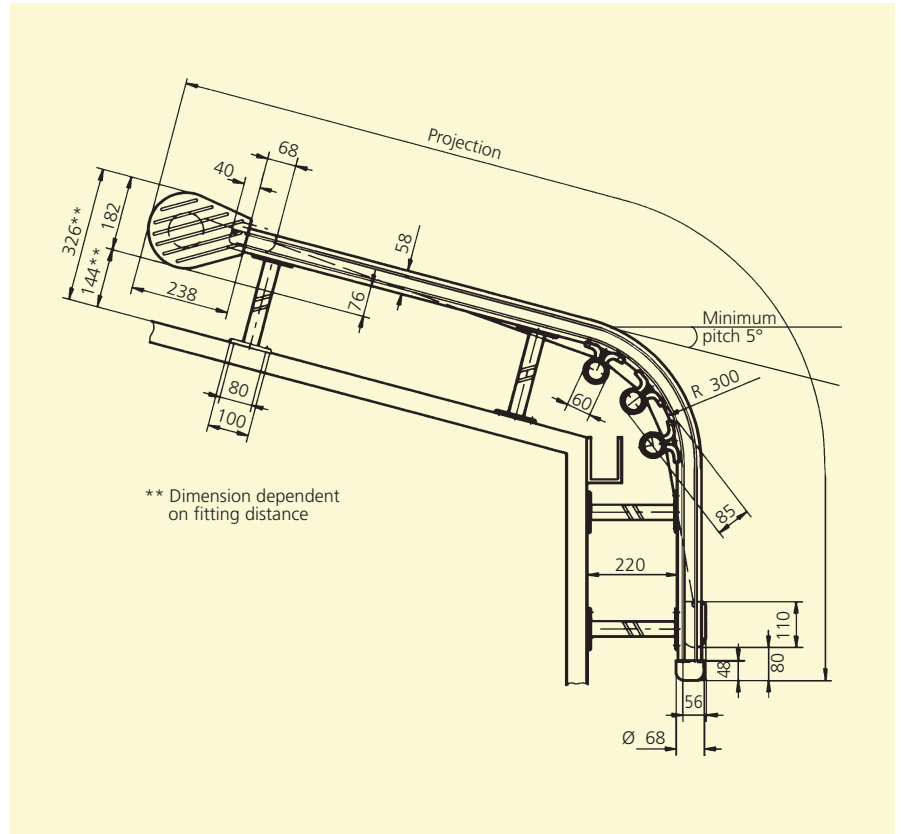


Curved units viewed from side

Viewed from side

WGM 2020 Design 1-1-1

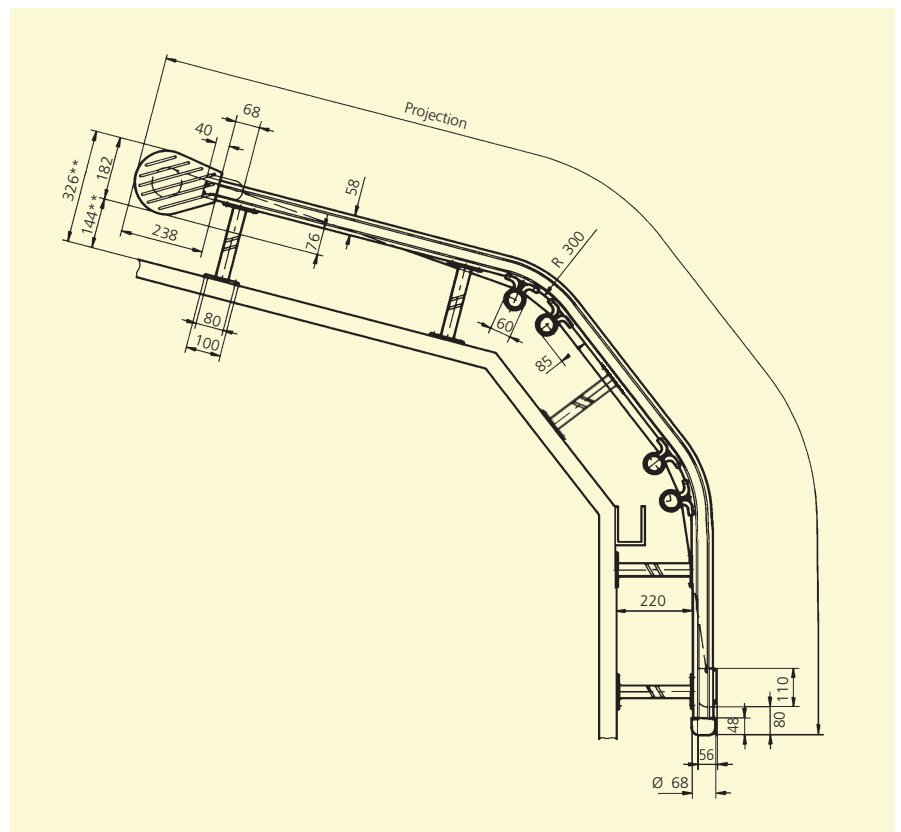
Single section curved unit with 1 motor. Standard curve radius 300 mm (internal). Angle of bend max. 90°.*



Viewed from side

WGM 2020 Design 2-1-1

Single section curved unit with 2 bends and 1 motor. Standard curve radius 300 mm (internal). Total angle of bends with 2 bends max. 90°.*

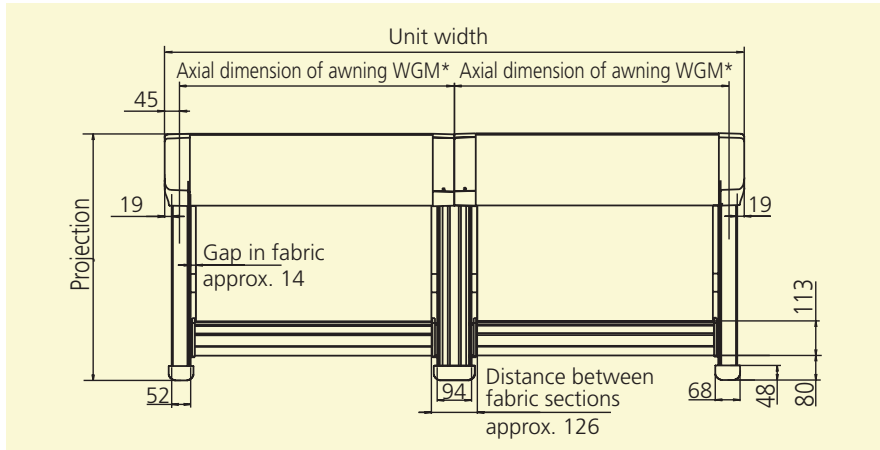


* In the area of the bend the fabric may crease diagonally.

i Outer rails are made up of segments.

When establishing the fixing height, check for any opening windows, gutters, etc.

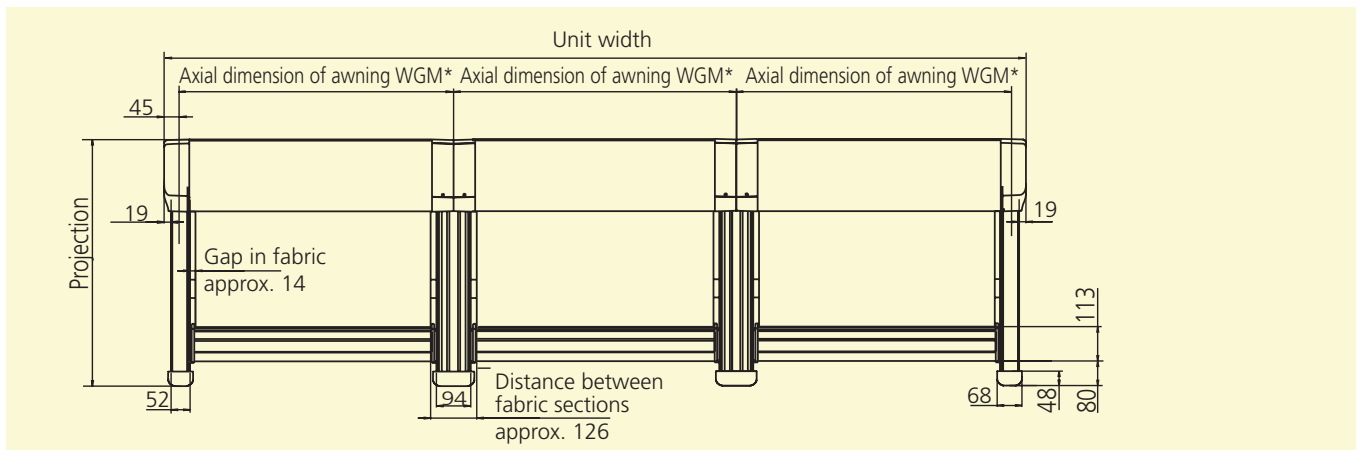
Multi-section units viewed from above



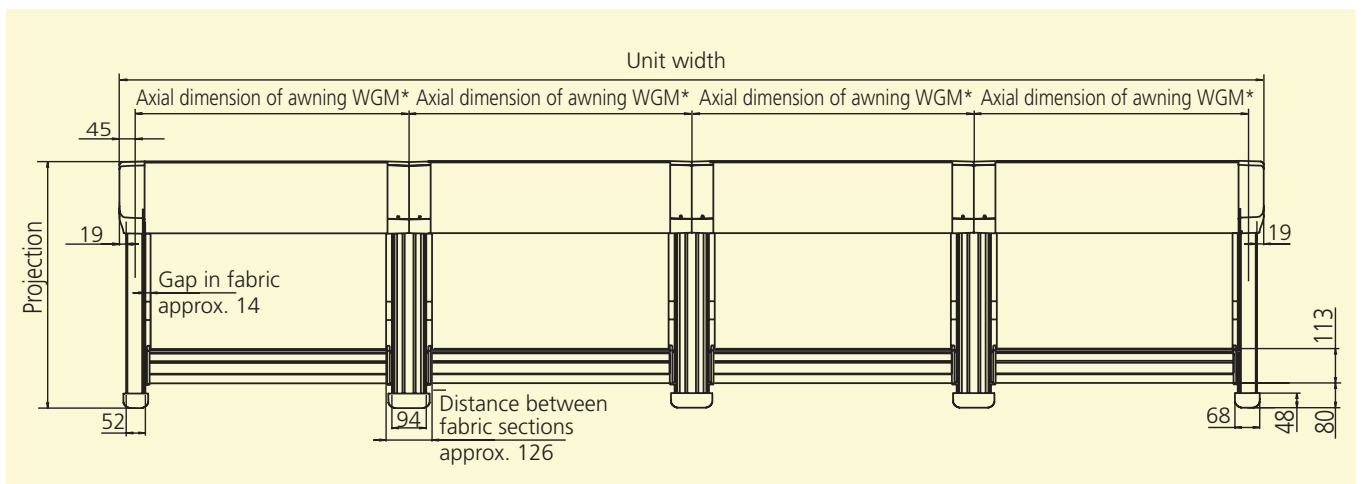
WGM 2030 Design 0-2-1
Two section flat unit
coupled with 1 motor

* Axial dimension of **WGM 2030 Design** = centre to centre of side channels.

WGM 2030 Design 0-3-2
Three section flat unit
coupled with 2 motors



WGM 2030 Design 0-4-2
Four section flat unit
coupled with 2 motors (below)



Type designations/establishing dimensions

Example 1 WGM 2030 Design 0-3-2 flat unit

Type key:
 0 = No. of bends
 = flat unit
 3 = No. of sections
 2 = No. of motors

Establishing dimensions

Projection =
 Rear edge of casing to front edge
 of side channel cap

Axial dimension =
 Centre to centre of side channel

Section width =
 Centre to centre of side channel

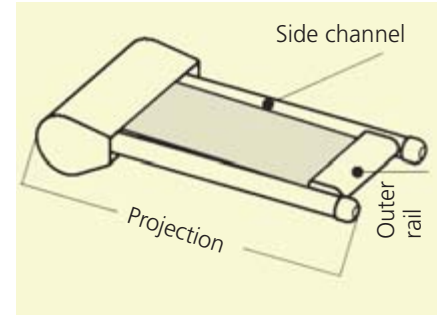
Example 2 WGM 2020 Design 1-3-2 curved unit

Type key:
 1 = No. of bends
 = curved unit
 3 = No. of sections
 2 = No. of motors

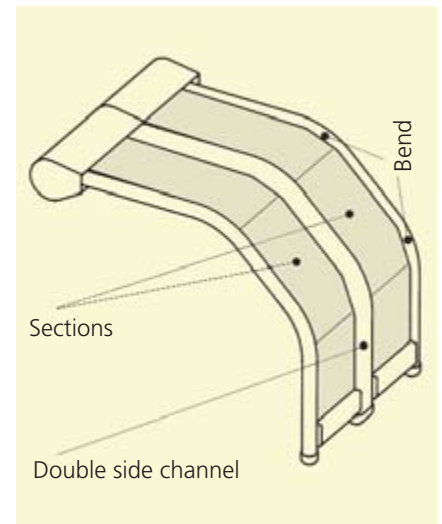
Standard radius of bend: 30 cm
 (internal). On units with 1 bend
 the maximum angle of the bend
 is 90° (Exception: units with an
 axial dimension/section width
 401 – 500 cm = max. 45°)

On units with 2 bends, the maxi-
 mum total angle of both bends
 is 90° (Exception: units with an
 axial dimension/section width
 401 – 500 cm = both bends max.
 45°)

The angle of bend is different
 each time, depending on the
 substructure.

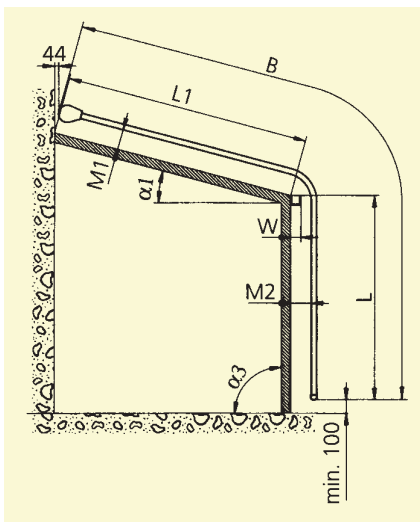


WGM 2030 Design flat unit 0-1-1
 0 bends, 1 section, 1 motor



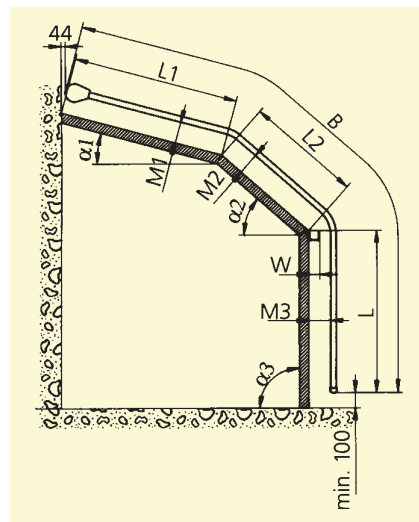
WGM 2020 Design curved unit 2-2-2
 2 bends, 2 section, 2 motors

Calculation of angle of bend on units with 1 bend



Angle of bend = $90^\circ - \alpha 1$

Calculation of angle of bend on units with 1 bend



Angle of bend = $90^\circ - \alpha 1$

Overview of types, WGM 2030 Design flat units

Fig.	Type 2030 Design	No. of bends	Sections	Motor	Max. pro- jection in cm	Axial dimen- sion from – to in cm	Section width min. – max. in cm
	0-1-1	0	1	1	150	85 – 650	
	0-1-1	0	1	1	250	101 – 650	
	0-1-1	0	1	1	450	135 – 650	
	0-1-1	0	1	1	500	188 – 650	
	0-1-1	0	1	1	600	188 – 600	
	0-2-1	0	2	1	150	172 – 1000	86 – 500
	0-2-1	0	2	1	250	206 – 1000	103 – 500
	0-2-1	0	2	1	400	276 – 1000	138 – 500
	0-2-1	0	2	1	450	276 – 800	138 – 500
	0-2-1	0	2	1	600	380 – 800	190 – 500
	0-2-2	0	2	2	150	172 – 1300	86 – 650
	0-2-2	0	2	2	250	206 – 1300	103 – 650
	0-2-2	0	2	2	450	276 – 1300	138 – 650
	0-2-2	0	2	2	500	380 – 1300	190 – 650
	0-2-2	0	2	2	600	380 – 1200	190 – 600
	0-3-2	0	3	2	150	267 – 1650	89 – 650* (500)**
	0-3-2	0	3	2	250	315 – 1650	105 – 650* (500)**
	0-3-2	0	3	2	400	420 – 1650	140 – 650* (500)**
	0-3-2	0	3	2	450	420 – 1450	140 – 650* (400)**
	0-3-2	0	3	2	500	576 – 1450	192 – 650* (400)**
	0-3-2	0	3	2	600	576 – 1400	192 – 600* (400)**
	0-4-2	0	4	2	150	356 – 2000	89 – 500**
	0-4-2	0	4	2	250	420 – 2000	105 – 500**
	0-4-2	0	4	2	400	560 – 2000	140 – 500**
	0-4-2	0	4	2	450	560 – 1600	140 – 500**
	0-4-2	0	4	2	600	768 – 1600	192 – 500**

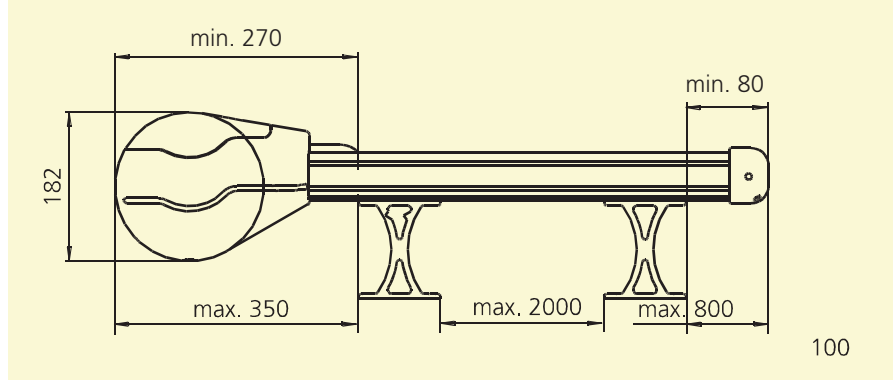
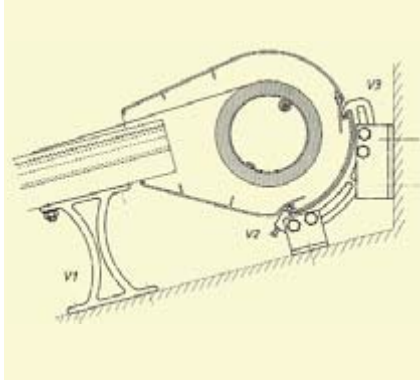
* = max. section width for the single section
 ** = max. section width for the double sections

Overview of types, WGM 2020 Design curved units

Fig.	Type 2020 Design	No. of bends	Sec- tions	Motor	Max. pro- jection in cm	Width of unit from – to (cm)		Section width min. – max. in cm	
						Angle of bends		Angle of bends	
						up to 45°	45°–90°	up to 45°	45°–90°
	1-1-1	1	1	1	150	85– 500	85– 400		
	1-1-1	1	1	1	250	101– 500	101– 400		
	1-1-1	1	1	1	450	135– 500	135– 400		
	1-1-1	1	1	1	600	188– 500	188– 400		
	1-2-1	1	2	1	150	172– 800	172– 800	86–400	86–400
	1-2-1	1	2	1	250	206– 800	206– 800	103–400	103–400
	1-2-1	1	2	1	450	276– 800	276– 800	138–400	138–400
	1-2-1	1	2	1	600	380– 800	380– 800	190–400	190–400
	1-2-2	1	2	2	150	172–1000	172– 800	86–500	86–400
	1-2-2	1	2	2	250	206–1000	206– 800	103–500	103–400
	1-2-2	1	2	2	450	276–1000	276– 800	138–500	138–400
	1-2-2	1	2	2	600	380–1000	380– 800	190–500	190–400
	1-3-2	1	3	2	150	267–1200	267–1200	89–500* (400)**	89–400
	1-3-2	1	3	2	250	315–1200	315–1200	105–500* (400)**	105–400
	1-3-2	1	3	2	450	420–1200	420–1200	140–500* (400)**	140–400
	1-3-2	1	3	2	600	576–1200	576–1200	192–500* (400)**	192–400
	2-1-1	2	1	1	150	85– 500	85– 400		
	2-1-1	2	1	1	250	101– 500	101– 400		
	2-1-1	2	1	1	450	135– 500	135– 400		
	2-1-1	2	1	1	600	188– 500	188– 400		
	2-2-1	2	2	1	150	172– 800	172– 800	86–400	86–400
	2-2-1	2	2	1	250	206– 800	206– 800	103–400	103–400
	2-2-1	2	2	1	450	276– 800	276– 800	138–400	138–400
	2-2-1	2	2	1	600	380– 800	380– 800	190–400	190–400
	2-2-2	2	2	2	150	172–1000	172– 800	86–500	86–400
	2-2-2	2	2	2	250	206–1000	206– 800	103–500	103–400
	2-2-2	2	2	2	450	276–1000	276– 800	138–500	138–400
	2-2-2	2	2	2	600	380–1000	380– 800	190–500	190–400
	2-3-2	2	3	2	150	267–1200	267–1200	89–500* (400)**	89–400
	2-3-2	2	3	2	250	315–1200	315–1200	105–500* (400)**	105–400
	2-3-2	2	3	2	450	420–1200	420–1200	140–500* (400)**	140–400
	2-3-2	2	3	2	600	576–1200	576–1200	192–500* (400)**	192–400
	S-1-1	only on request							
	Special design								

* = max. section width for the single section
 ** = max. section width for the double sections

Attachment



Standard mount, **WGM 2030/2020 Design:**

V1 cantilever casing

Optionally available

Casing mount below = V2

Wall casing mount = V3

Important dimensions for positioning of brackets: numbers in mm

No. of brackets WGM 2030/2020 Design

Type	Projection in cm											
	up to 100	101 – 150	151 – 200	201 – 250	251 – 300	301 – 350	351 – 400	401 – 450	451 – 500	501 – 550	551 – 600	
2030 Design 0-1-1	4	4	4	4	6	6	6	6	8	8	8	
2030 Design 0-2-1	6	6	6	6	9	9	9	9	12	12	12	
2030 Design 0-2-2	6	6	6	6	9	9	9	9	12	12	12	
2030 Design 0-3-2	8	8	8	8	12	12	12	12	16	16	16	
2030 Design 0-4-2	10	10	10	10	15	15	15	15	20	20	20	
2020 Design 1-1-1	4	4	6	6	8	8	8	8	10	10	10	
2020 Design 1-2-1	6	6	9	9	12	12	12	12	15	15	15	
2020 Design 1-2-2	6	6	9	9	12	12	12	12	15	15	15	
2020 Design 1-3-2	8	8	12	12	16	16	16	16	20	20	20	
2020 Design 2-1-1	4	4	6	6	8	8	10	10	12	12	12	
2020 Design 2-2-1	6	6	9	9	12	12	15	15	18	18	18	
2020 Design 2-2-2	6	6	9	9	12	12	15	15	18	18	18	
2020 Design 2-3-2	8	8	12	12	16	16	20	20	24	24	24	

i A bracket must be fitted at the joints between two side channels (**WGM 2020 Design**).

Where there are strong winds and a weak substructure, or similar, we recommend using more support brackets and distance bars.

Please also note the details in the current weinor price list.

i Please note that despite their perfection and the large quantity of materials used, the **WGM 2030/2020 Design** are only sunshades.

Information about supply:

Attention:

- Units with SOLTIS fabrics can only be supplied in certain sizes

- Units which are to open from the bottom upwards are only available on request
- Units with an axial dimension of 501 cm and above require a sliding support
- Motor drive without switch, plug, Hirschmann coupling as standard
- Fixers for the substructure are not supplied as standard

Distance bars

Standard number of distance bars

These are calculated as follows:

1. Check whether the required **WGM Design** dimensions are feasible.
2. The standard number of distance bars per section is to be found in the adjacent table.
3. For multi-section units, calculate the total number of distance bars needed by adding the number of distance bars required for each section.

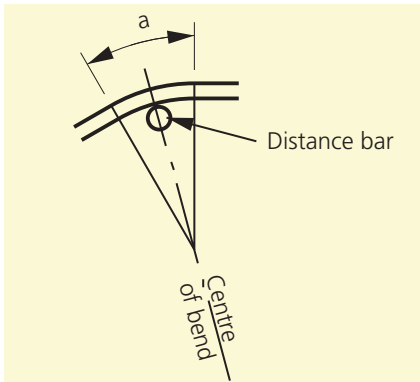
Standard No. of distance bars per section in flat units

Width of section	Axial dimension in cm					
Axial dimension in cm	251 – 300	301 – 350	351 – 400	401 – 450	451 – 500	501 – 600
000 – 134	–	X	X	X	X	X
135 – 188	–	–	–	1	X	X
189 – 500	–	–	–	1	1	1
501 – 600	–	–	1	1	1	1
601 – 650	1	1	1	1	1	X

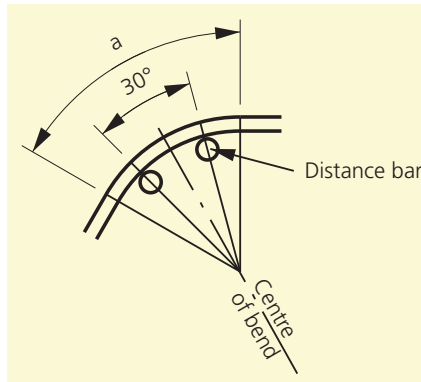
X Unit not feasible

– No distance bar required

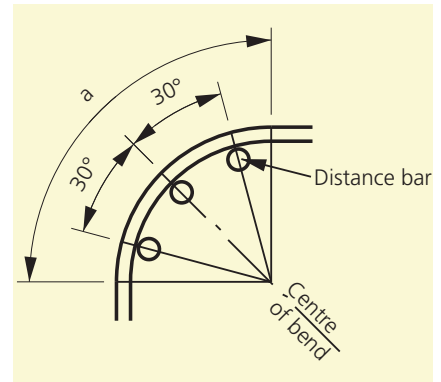
Additional distance bars are available. Please see the current weinor price list.



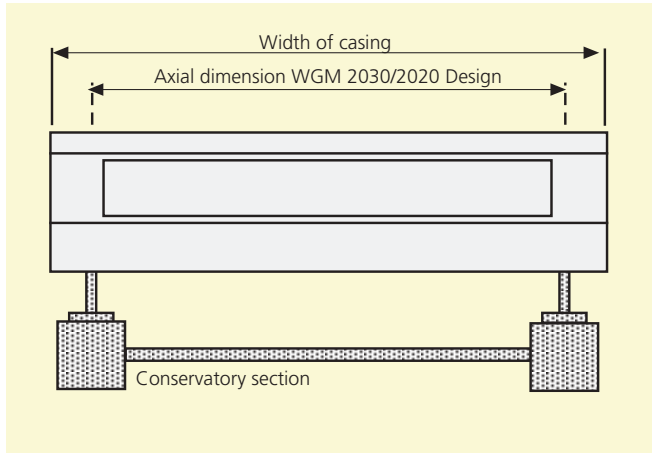
The number of distance bars on **WGM 2020 Design** curved units increases by 1 if the flat area is longer than 4 m.



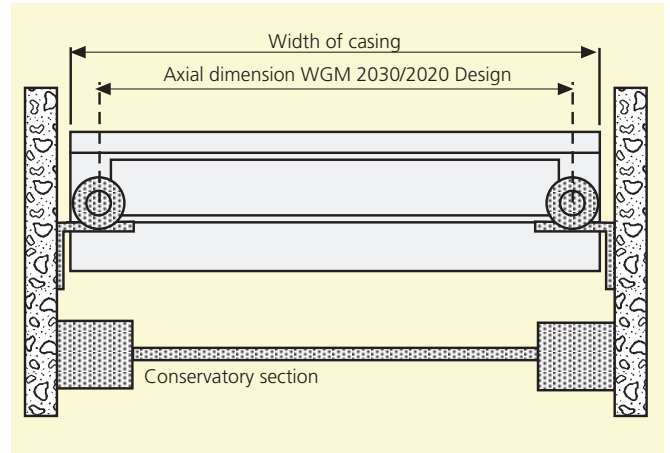
The number of distance bars on **WGM 2020 Design** double curved units is calculated from the individual bends, whereby the total angle of bend may not exceed 90°.



Mounting versions

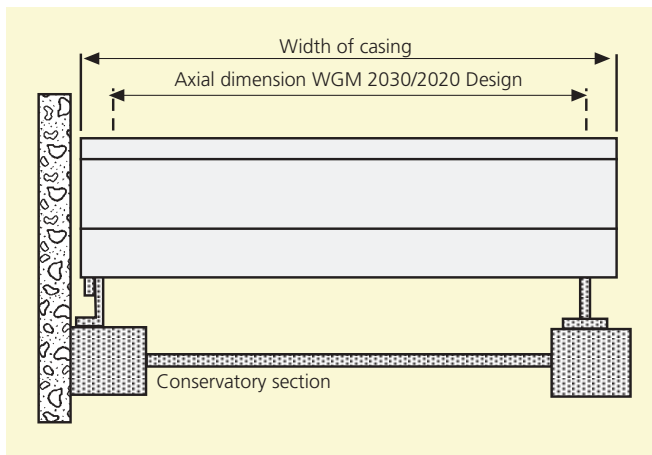


Unlimited sideways width of casing.
E.g. mounting on a conservatory with standard support bracket.



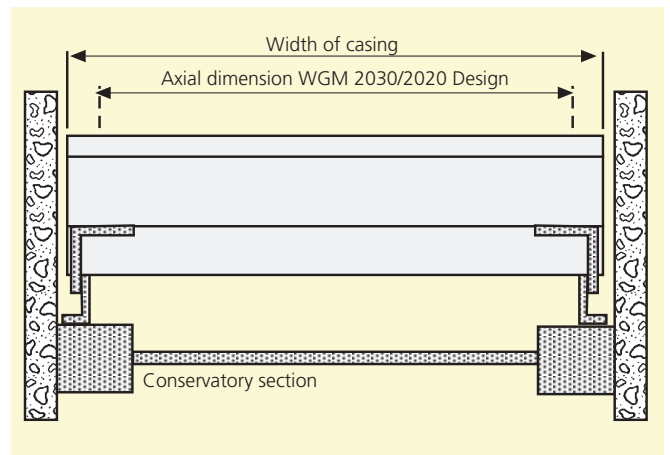
Width of casing limited on both sides.
E.g. mounting to the brickwork with an angle bracket.

i Limited width (e.g. niche) minus space = casing width. Casing width minus 90 mm = **WGM** axial dimension



Width of casing limited on one side.
E.g. limited side with Z-shaped bracket or niche support bracket, free side with standard support bracket.

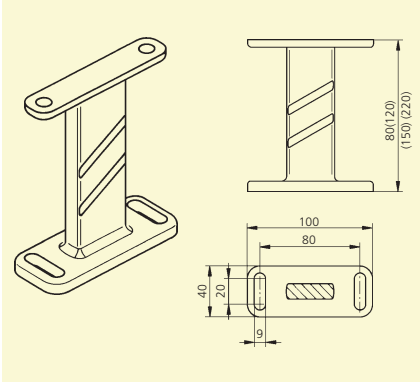
i Limited width minus space = casing width. Casing width minus 90 mm = **WGM** axial dimension



Width of casing limited on both sides, e.g. by brickwork. In this case the axial dimension of the **WGM 2030/2020 Design** may differ from the axial dimension of the substructure.
E.g. mounting on a conservatory with Z-shaped bracket or niche support bracket.

i Limited width (e.g. niche) minus space = casing width. Casing width minus 90 mm = **WGM** axial dimension

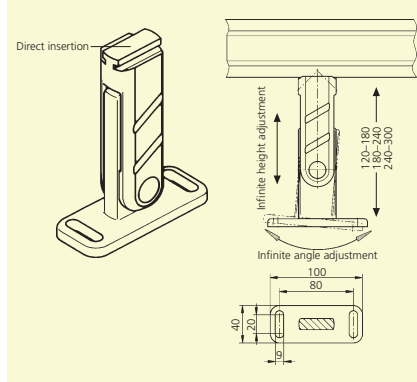
Support brackets



Standard support bracket, "Modern"

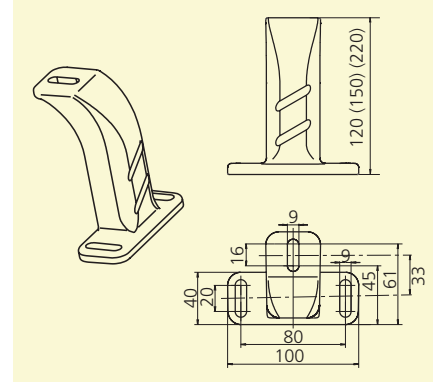
Height: 80 mm (only for units with up to 4 m axial dimension and 4 m projection, no distance bar, no casing bracket, not for curved units)

Height: 120 mm, 150 mm, 220 mm



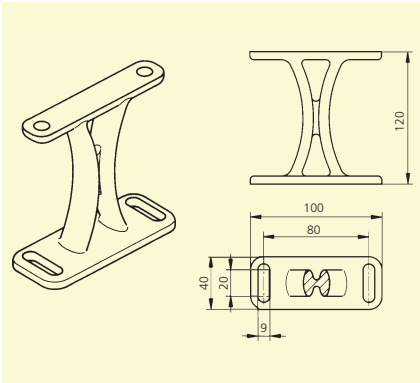
Universal support bracket, adjustable height and angle, with direct insertion

Height: 120 – 180 mm, 180 – 240 mm, 240 – 300 mm



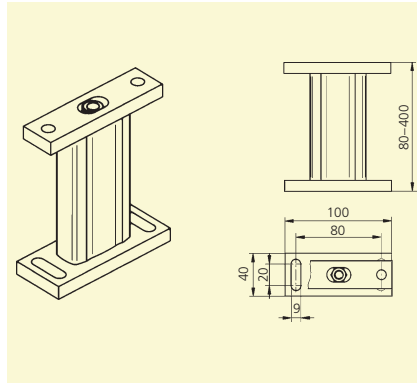
Niche support bracket

Height 120 – 220 mm



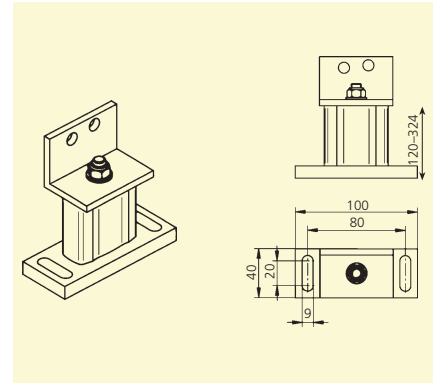
Standard support bracket, "Gothic"

Height: 120 mm



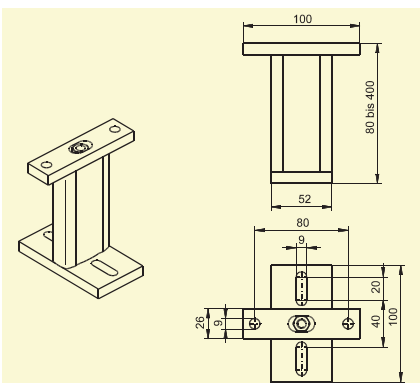
Special support bracket

Height 80 – 400 mm



Special support bracket for casing attachment V2

Height 120 – 324 mm



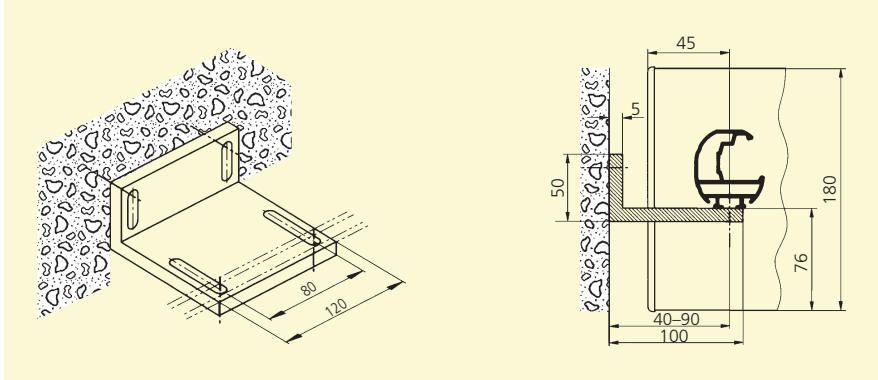
X-shaped support bracket

Height 80 – 400 mm

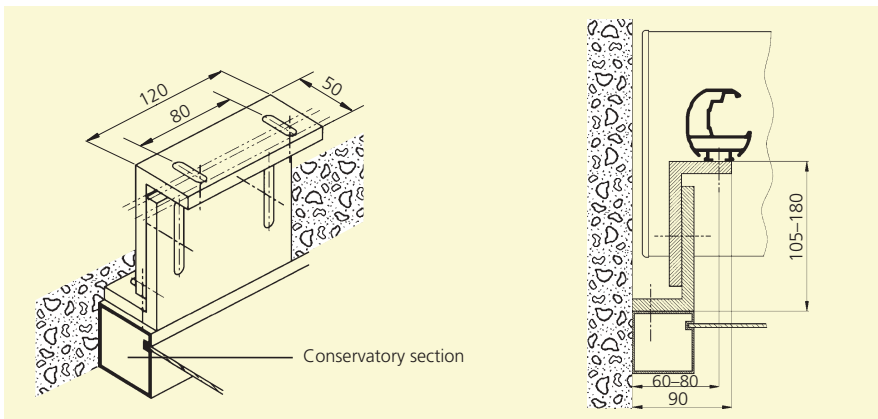
Fixing bracket for wind and sun sensor ▶



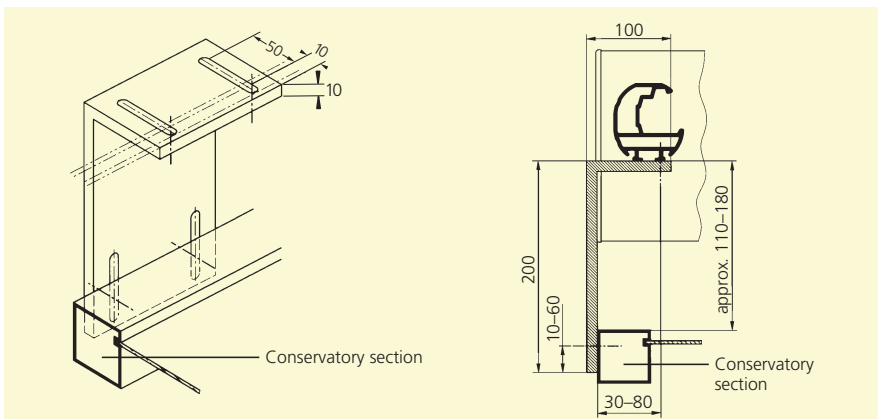
Angle brackets



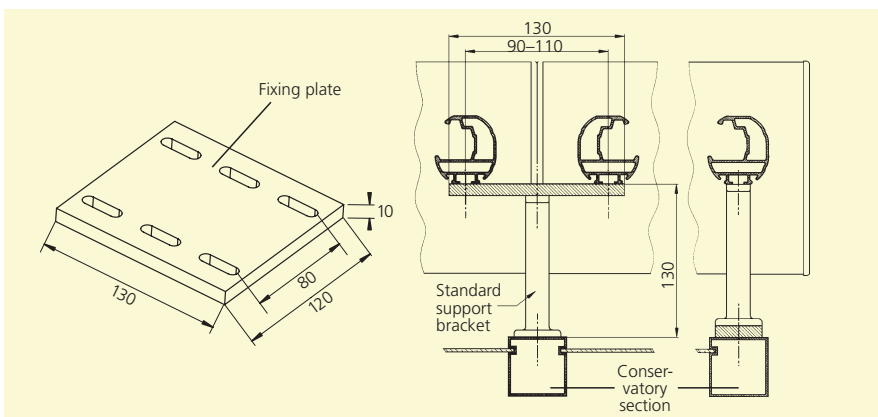
Bracket
for attachment to the side of the wall



Z-shaped bracket
Height adjustable, for niche mounting



Long angle bracket
for fitting to the side of the conservatory



Fixing plate
for series-connected joined units with separate side channels.
Height: 10 mm

Base plate
for support brackets in series-connected joined units (see outside right)
Height 10 mm

We reserve the right to make technical alterations. December 2006