



Honoured with:



Cassette awning

Kubata

Kubata LED

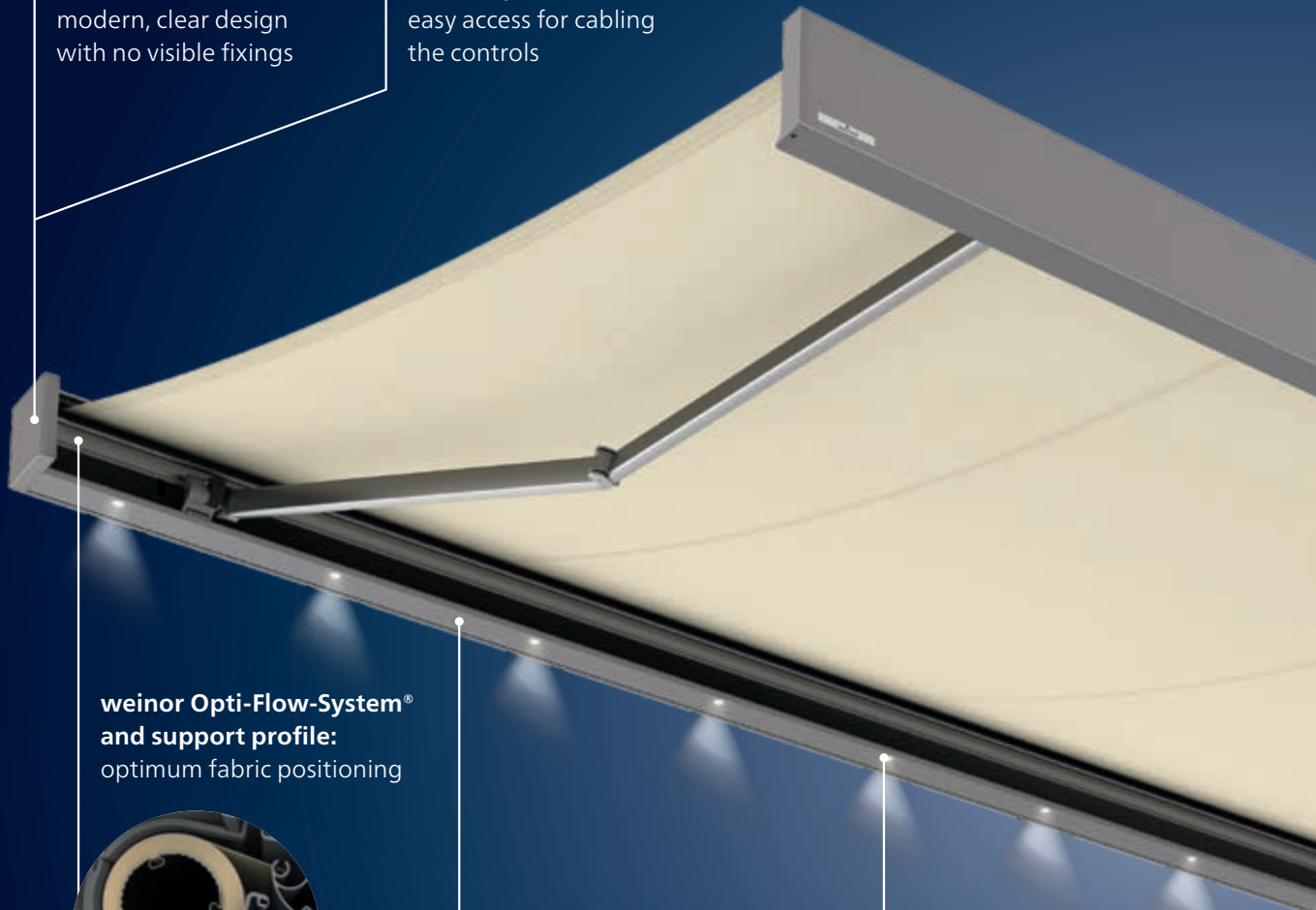
Cubic shapes are a popular style element for contemporary facades. The **Kubata** cassette awning blends ideally into these. With its clear design it complements modern architecture perfectly. But the high-quality technology is also impressive: LED spotlights integrated into the cassette, the weinor LongLife arm, convenient control and large choice of fabrics and colours – leaving nothing to be desired.



**Cubic,
clean lines:**
modern, clear design
with no visible fixings



**Removable
cover caps:**
easy access for cabling
the controls



**weinor Opti-Flow-System®
and support profile:**
optimum fabric positioning



Simple installation
with wall bracket
and carrier bar



LED lighting:
integrated
into the cassette



Kubata Highlights



Reliable drainage:
no ingress of
rainwater

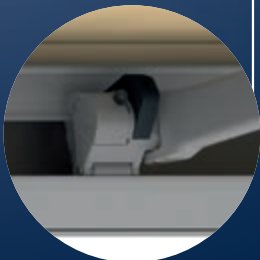


**weinor
LongLife arm:**
durable and
quiet



**Easy assembly front
profile end cap:**
no visible fixings and
integrated water
drainage outlet

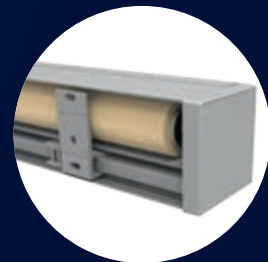
**Wind lock safety
device:**
well sheltered
even in winds



2 versions:



cassette with
back plate



cassette without
back plate

Kubata Benefits



Cubic, clean lines – modern contemporary design

The Kubata's Opti-Flow-System® from weinor is fitted with a support profile across the whole width of the awning that ensures optimum fabric positioning.



Kubata LED – cassette with integrated LED lighting

The LED spotlights integrated into the cassette produce atmospheric lighting on the patio:

- 30,000 LED light hours with lowest energy consumption (85% electricity saving compared to halogen technology)
- LED infinitely dimmable using weinor's BiConnect control

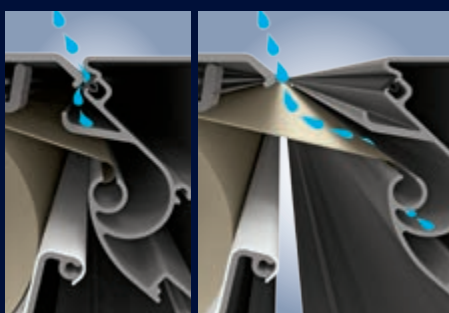


Figure 1

Figure 2

Reliable drainage – rainwater is drained off in a controlled way

Figure 1: Penetrating rainwater is discharged laterally. This protects the cloth from moisture.

Figure 2: If the cloth is retracted in the wet state, the residual water runs off laterally over the channel.



Removable cover caps – easier access for the receiver/cable connections

The cover caps on both sides can be removed using the clip technology. As a result, it is very easy to disconnect the drive and controls and it is easier to carry out maintenance work.



Wind lock safety device – well-sheltered even in winds

Proven technology prevents the awning from lifting up when wind gusts from below:

- Tilting folding arm with wind lock safety device
- Proven, maintenance-free technology
- Forged and extruded aluminium components

Kubata Technology

Kubata versions	Kubata	Kubata LED
Technology		
Max. width	700/650 cm	700/650 cm
Max. projection	300/400 cm	300/400 cm
Cassette size (W x H) incl. standard bracket	210 mm x 205 mm	210 mm x 205 mm
Gear drive	○	—
Motor drive	● as standard	● as standard
Angle of pitch on awning	5° to 40°	5° to 40°
Installation alternatives	can be installed on walls, ceilings and rafters	
LED lighting (separate spotlights)	—	● integrated in bottom profile
OptiNut roller tube	● as standard	● as standard
LongLife arm	● as standard	● as standard
Accessories		
Tempura Quadra heating system	○	○
BiSens Agido-3V product protection sensor	○	○
Controls		
Radio control	○	○
No remote	●	●
Weather sensors		
Sun/wind sensor BiConnect BiSens SW-230 V	○	○
Sun/wind sensor solar powered BiConnect BiSens SW-Solar+	○	○
Sun/wind/rain sensor BiConnect BiSens SWR-230V	○	○
Quality		
Tested up to	wind resistance class 2 according to DIN 13561 (wind strength 5 on the Beaufort scale)	

● Standard ○ Option — Not available

Weight table

Width in cm	Projection in cm					
	150	200	250	300	350	400
	Weight in kg					
200	46					
250	54	56				
300	61	63	66			
350	68	70	74	79		
400	76	78	81	86	90	
450	83	85	88	94	98	106
500	90	92	96	101	105	114
550	99	101	105	110	113	122
600	106	109	113	118	124	130
650	114	116	120	125	131	137
700	124	127	130	139	—	—

weinor professional tips:

Scan the QR code



or view or download them online at:

www.weinorpartner.com/weinor-professional-tips/kubata now.

Kubata LED



LED lighting – 30,000 hours of lighting with lowest energy consumption

Select LED components for top weinor quality:

- Atmospheric light thanks to special glass lenses
- Visually integrated into the cassette*
- Lighting remains on even when awning is retracted
- Highly energy-efficient
- Operating life of 30,000 hours
- Infinitely dimmable when used with BiConnect radio control
- Easy to service: replace individual LED lights just by dismantling the bottom profile

* Cassette bottom section with integrated LED lights is not assembled.



Integrated LED lighting

Width in cm	Projection in cm						
	100	150	200	250	300	350	400
Number of LED spotlights							
200	3	3					
250	3 - 4	3 - 4	4				
300	4	4	4	4 - 5			
350	6 - 7	6 - 7	6 - 7	5 - 7	5 - 7		
400	7 - 8	7 - 8	7 - 8	7 - 8	6 - 8	6 - 8	
450	8 - 9	8 - 9	8 - 9	8 - 9	8 - 9	7 - 9	7 - 9
500	9	9	9	9	9	9	8 - 10
550	9 - 10	9 - 10	9 - 10	9 - 10	9 - 10	9 - 10	9 - 10
600	10 - 11	10 - 11	10 - 11	10 - 11	10 - 11	10 - 11	10 - 11
650	11 - 12	11 - 12	11 - 12	11 - 12	11 - 12	11 - 12	11 - 12
700	12	12	12	12	12		

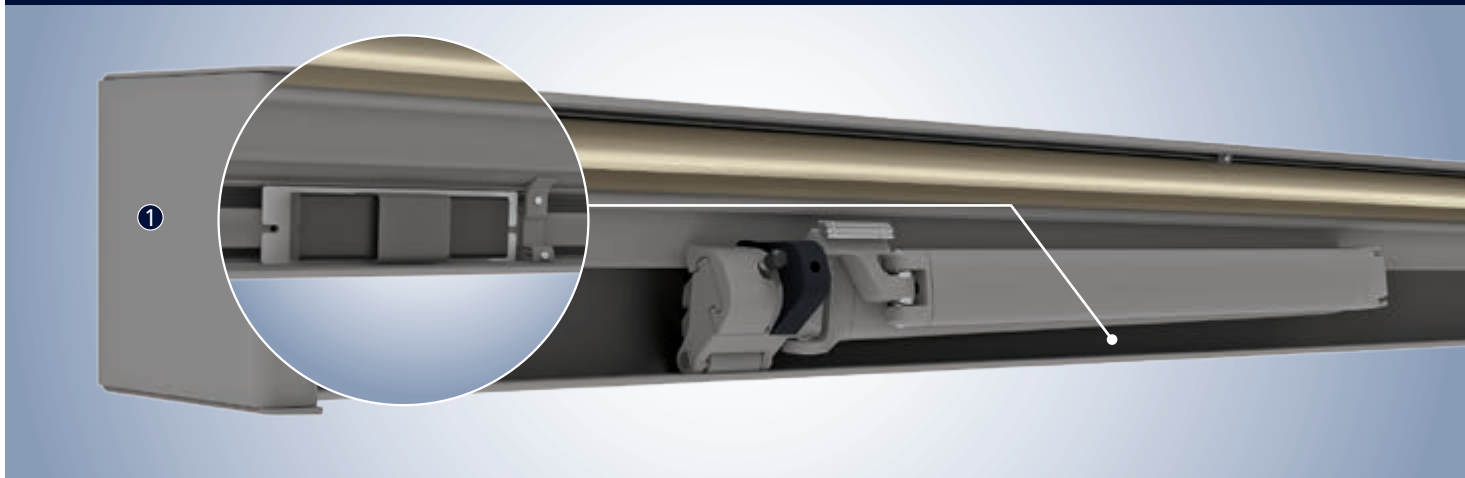
The LED spotlights are distributed automatically depending on the width/projection/ type of bracket.

This table shows the LED distribution with standard arm or bracket positions combined with the 85 mm wall bracket.



Kubata Controls

Easily accessible location for receivers/controls



Receiver, power supply pack and further electrical components (e.g. BiConnect receiver in the cassette)

The cover cap ① can be opened for servicing purposes. The drive can be disconnected from the receiver and controlled independently from this.

weinor BiConnect radio technology

Product	Electronics	BiConnect control	Remote receiver	Transmitter
Kubata	Kubata drive	<ul style="list-style-type: none"> • BiRec receiver 	BiRec MA-K	<ul style="list-style-type: none"> • BiEasy 1M/5M/15M Go! hand transmitter • BiEasy App • 1MW-3V wall transmitter
Kubata LED	Kubata drive and LED lighting	<ul style="list-style-type: none"> • BiRec combi-receiver for main drive and LED (with integrated power supply pack) • Dimmable LED 	BiRec MLED	<ul style="list-style-type: none"> • BiEasy 5M/15M Go! hand transmitter • BiEasy App
Accessories (optional)	Tempura Quadra heating	<ul style="list-style-type: none"> • Dimmable, additional receiver required • Accommodation of receiver in the design bar provided for this purpose or the Tempura Quadra box 	BiRec HD	<ul style="list-style-type: none"> • BiEasy 5M/15M Go! hand transmitter • BiEasy App

Requires: awnings with BiConnect remote control and sensors require a BiEasy 1M, 5M or 15M Go!

Somfy io-homecontrol® radio technology

Product	Electronics	Somfy io-homecontrol control	Remote receiver	Transmitter
Kubata	Kubata drive	<ul style="list-style-type: none"> io-homecontrol integrated in remote-controlled motor 	Somfy io remote-controlled motor	<ul style="list-style-type: none"> Situo 1 io Pure/Situo 5 io Pure/Easy Sun io Pure Shine hand transmitter Smooove 1 io Pure Shine wall transmitter
Kubata LED	Kubata drive and LED lighting	<ul style="list-style-type: none"> io-homecontrol integrated in remote-controlled motor Additional Somfy receiver for the LED spotlights (with downstream power supply pack) integrated into cassette LED not dimmable 	Somfy io remote-controlled motor and io lighting receiver	<ul style="list-style-type: none"> Situo 5 io Pure/Easy Sun io Pure Shine hand transmitter
Accessories (optional)	Tempura Quadra heating	<ul style="list-style-type: none"> Not possible with Somfy io-homecontrol 		

Somfy RTS radio technology

Product	Electronics	Somfy RTS control	Remote receiver	Transmitter
Kubata	Kubata drive	<ul style="list-style-type: none"> RTS control integrated in remote-controlled motor 	Somfy RTS remote-controlled motor	<ul style="list-style-type: none"> Telis 1 RTS Pure/Telis 1 Soliris RTS Pure/Telis 4 RTS Pure/Telis 4 Soliris RTS Pure hand transmitter Smooove 1 wall transmitter
Kubata LED	Kubata drive and LED lighting	<ul style="list-style-type: none"> RTS control integrated in remote-controlled motor Additional Somfy receiver for the LED spotlights (with downstream power supply pack) integrated into cassette LED not dimmable 	Somfy RTS remote-controlled motor and RTS lighting receiver	<ul style="list-style-type: none"> Telis 4 RTS Pure/Telis 4 Soliris RTS Pure hand transmitter
Accessories (optional)	Tempura Quadra heating	<ul style="list-style-type: none"> Not dimmable, additional receiver required Accommodation of receiver in the design bar provided for this purpose or the Tempura Quadra box 	Heating Slim Receiver RTS Plug	<ul style="list-style-type: none"> Telis 4 RTS Pure/Telis 4 Soliris RTS Pure hand transmitter



Note:

Please see the "Accessories" technical brochure for further details regarding the drive and control.

Some options are subject to a surcharge. For prices, please refer to the weinor awnings price list.

Hard wired with Somfy control

Product	Electronics	Firmly wired Somfy control	Controls
Kubata	Kubata drive	<ul style="list-style-type: none"> Somfy control for awning drive 	e.g. Soliris Smooove Uno
Kubata LED	Kubata drive and LED lighting	<ul style="list-style-type: none"> Somfy control for awning drive Switch on site for the LED spotlights LED power supply pack integrated into the cassette LED not dimmable 	e.g. Soliris Smooove Uno and suitable light switch (on site)
Accessories (optional)	Tempura Quadra heating	<ul style="list-style-type: none"> Not dimmable 	Suitable switch (on site)

Hard wired (switch/control on site)

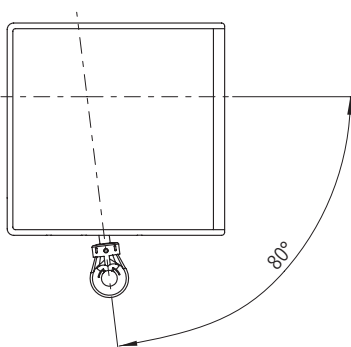
Product	Electronics	Hard wired control	Controls
Kubata	Kubata drive	<ul style="list-style-type: none"> Awning switch for the awning drive 	e.g. Double rocker switches (on site)
Kubata LED	Kubata drive and LED lighting	<ul style="list-style-type: none"> Awning switch for the awning drive Switch on site for the LED spotlights LED power supply pack integrated into the cassette LED not dimmable 	e.g. Double rocker switch and suitable light switch (on site)
Accessories (optional)	Tempura Quadra heating	<ul style="list-style-type: none"> Not dimmable 	Suitable switch (on site)

Gear drive (optional)



The Kubata can of course be extended and retracted using a gear handle too (with a max. projection of 350 cm). This option is recommended whenever it is hard to connect to an electrical power source on the site or if the awning is not frequently used.

- The Kubata has a universal bevel gear system
- Tested according to DIN EN 14203
- Freewheel device when extended

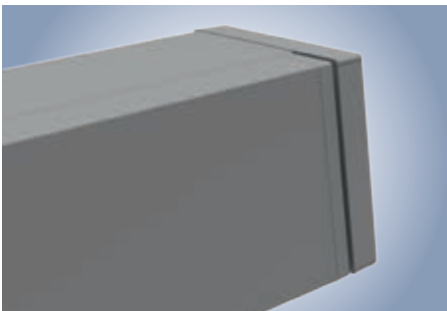


Standard gear outlet

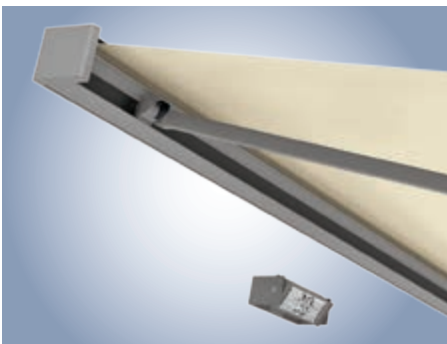
Regulating the front profile



Two stop eccentric tappets are installed on each side of the Kubata. They are used to regulate or adjust the closing position. This gives the awning cassette a visually harmonious overall look.



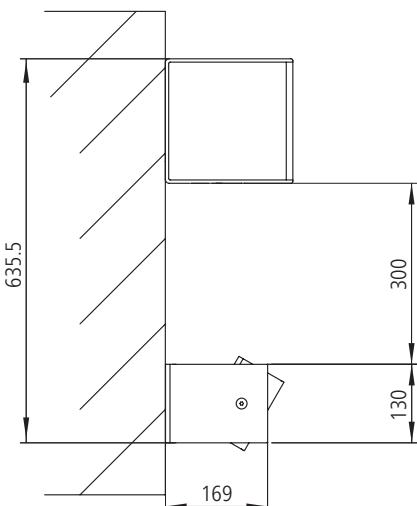
Tempura Quadra heating system (option)



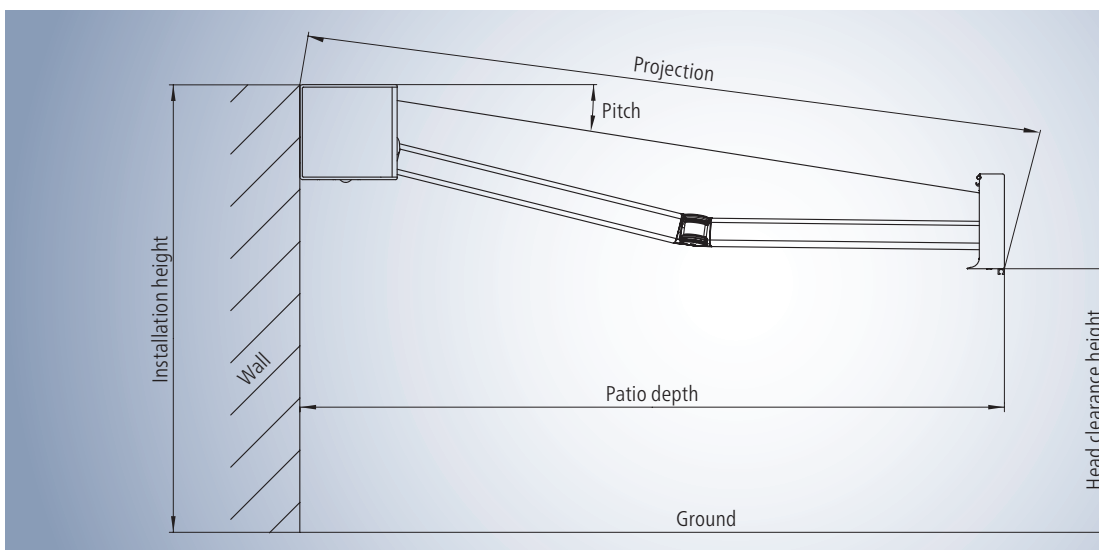
The perfect combination: Kubata with Tempura Quadra heating system and BiConnect*:

Please note:

The Tempura Quadra angle of pitch is restricted to 15° as standard (this restriction is to avoid the wall being heated up too much by the Tempura). The grub screw, which restricts the angle of pitch, can be removed if the Kubata is pitched up to 10° at the most. Then it is possible to adjust the Tempura Quadra's angle of pitch up to 30°.



Kubata Planning



Site measurements – determining the projection and head clearance height

- Find the projection by looking in the “Projection” table for the terrace depth.
- Using the projection from the table and the required angle of inclination, consult the “head clearance height” table for the head clearance height. This head clearance height refers to an installation height of 300 cm.
- Add/subtract the difference between 300 cm and the actual installation height to/from the head clearance height in the table.

Determining the projection

Pitch angle	Patio depth in cm					
	150	200	250	300	350	400
5°	161	211	261	311	361	400
15°	165	217	269	321	372	400
25°	176	231	286	341	396	400

Projection in cm (rounded figures)

This table can be used to find the awning projection for any given horizontal patio depth. Please note that the awning projection is possible in 10 cm increments so this has to be rounded up or down.

Determining the head clearance height

Pitch angle	Projection in cm					
	150	200	250	300	350	400
5°	272	268	263	259	254	250
15°	246	233	220	207	194	181
25°	222	200	179	158	137	116

Head clearance height in cm (rounded figures)

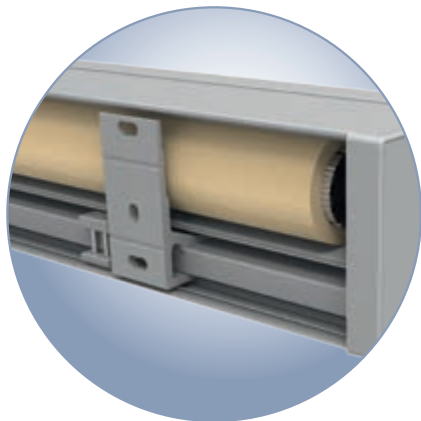
This table is used to find the head clearance heights for various projections when the angle of pitch is 5°, 15° or 25°.

This table is based on the example of an installation height of 300 cm (edge of awning).

Wall bracket

Sizes and bracket recommendations

Width in cm	Projection in cm													
	150	160-200	210-250	260-300 Projection only in 10 cm steps					310-350 Projection only in 10 cm steps					360-400
				260	270	280	290	300	310	320	330	340	350	
200	2													
201-250	2	2												
251-300	2	2	2											
301-350	2	2	2	2	2	2	2	2						
351-400	2	2	2	2	2	2	2	2	2	2	2	2	2	
401-450	2	2	2	2	2	2	2	2	2	2	2	2	2	2
451-500	3	3	3	3	3	3	3	2+1	2+1	2+1	2+1	2+1	2+1	2+1
501-550	3	3	3	3	3	3	2+1	2+1	2+1	2+1	2+1	2+1	2+1	2+1
551-600	3	3	3	3	3	2+1	2+1	2+1	2+1	2+1	2+1	2+1	2+1	2+1
601-650	3	3	3	3	2+1	2+1	2+1	2+1	2+1	2+1	2+1	2+1	2+1	2+1
651-700	3	3	3	2+1	2+1	2+1	2+1	2+1						

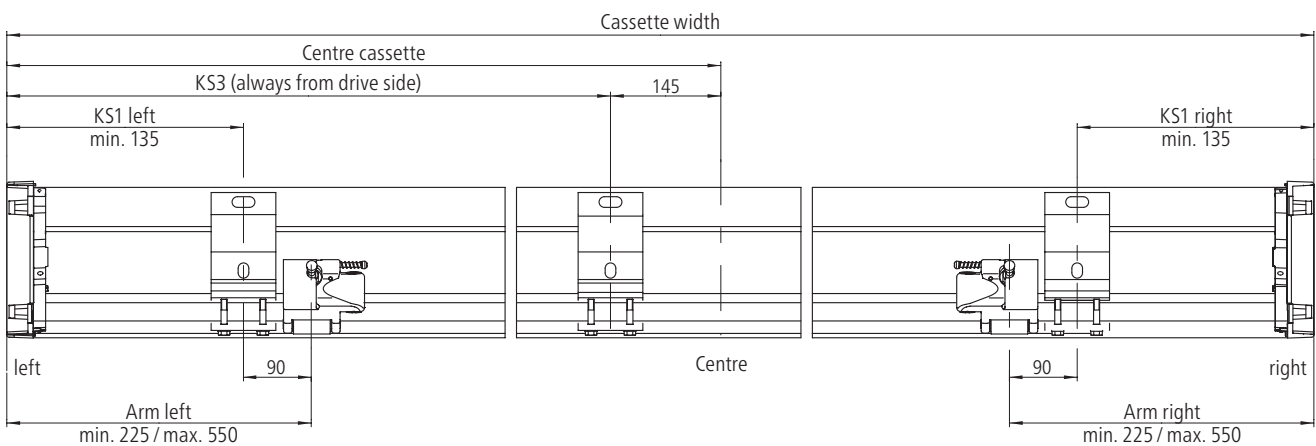


- 2 2 x wallbracket 85 mm
- 3 3 x wallbracket 85 mm
- 2 2 x wallbracket 295 mm
- 2+1 2 x wallbracket 295 mm + 1 x wallbracket 85 mm

Wall mounting on C20/25 concrete
 Information applies to wall mounting on a pressure-resistant substrate of C20/25 concrete with up to 200 mm facing.

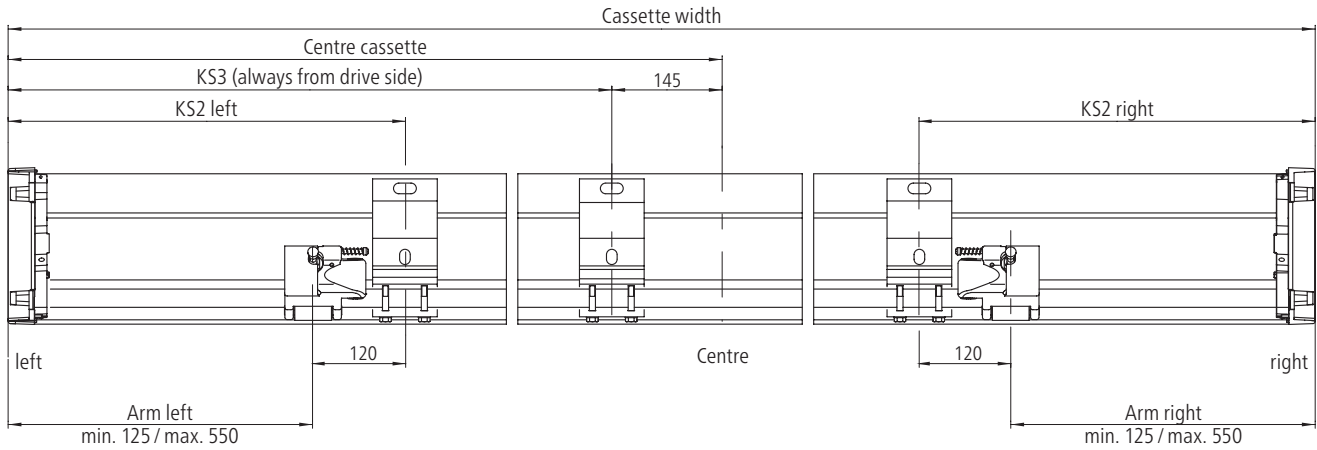
Position of wall brackets and Kubata cassette

Wall bracket 85 mm outside (KS1)

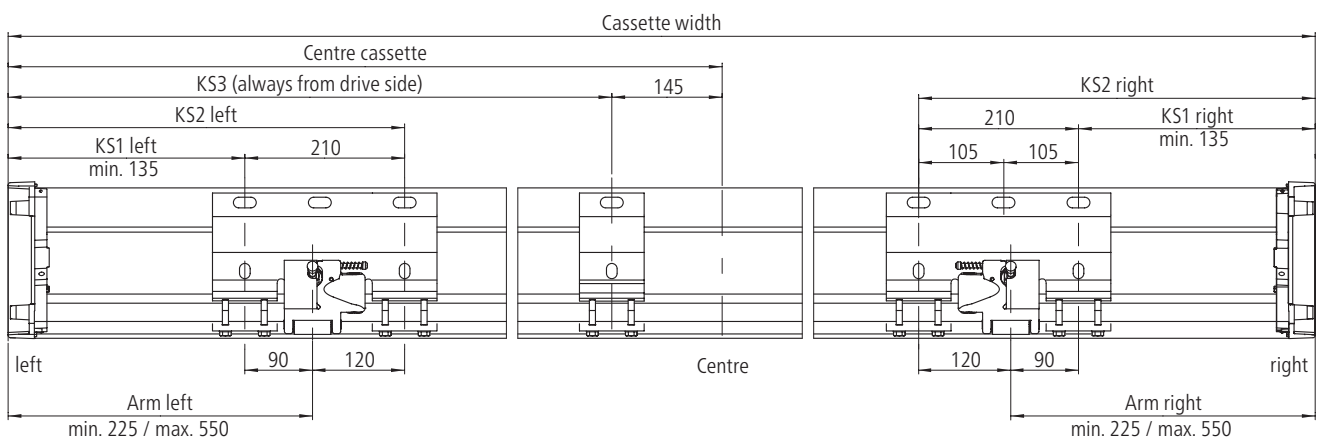


Position of wall brackets and Kubata cassette

Wall bracket 85 mm inside (KS2)



Wall bracket 295 mm

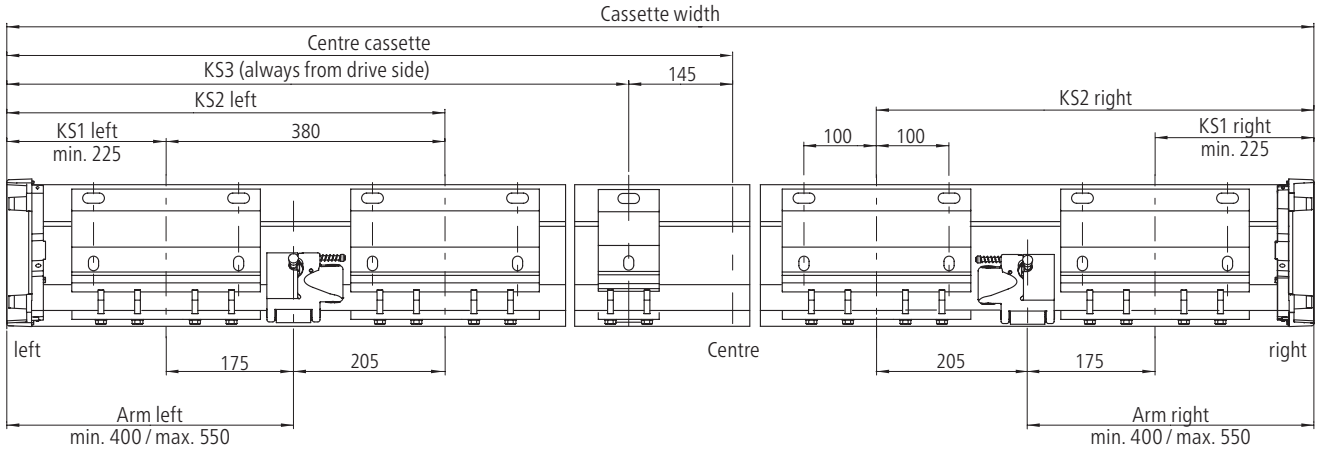


Notes:

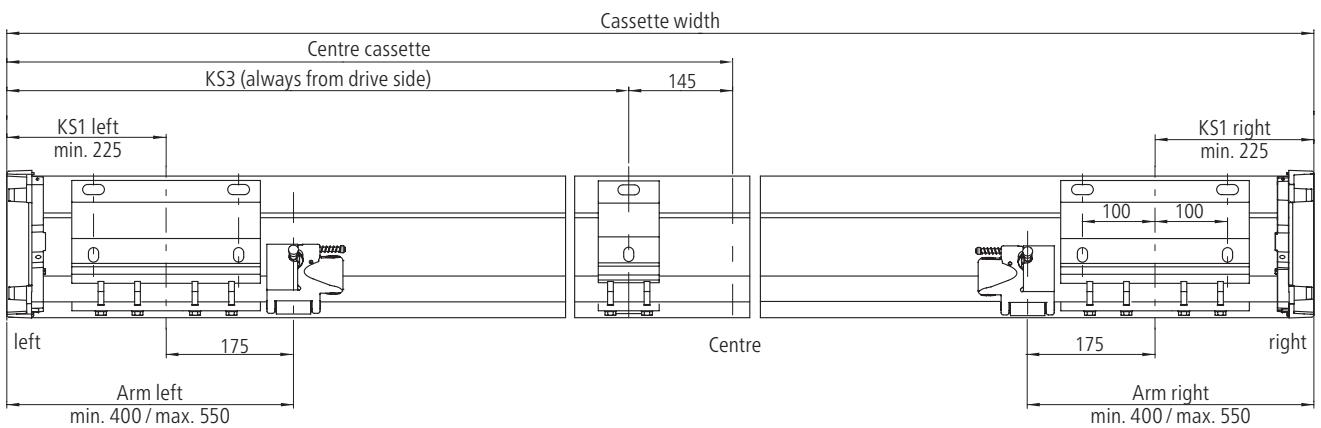
- KS1 = outside bracket
- KS2 = inside bracket
- KS3 = centre bracket

Position of wall brackets and Kubata cassette

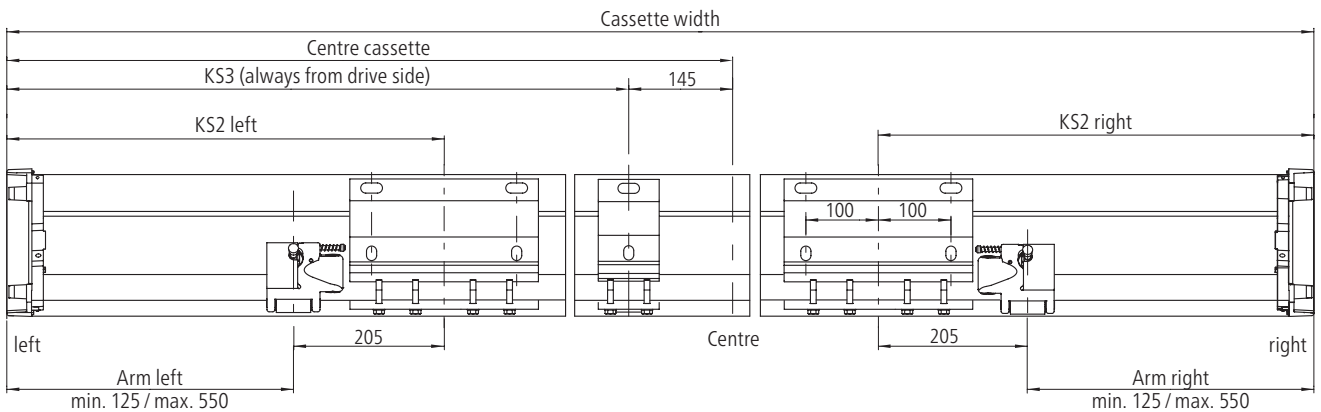
Wall bracket 260 mm on both sides (KS1 and KS2)



Wall bracket 260 mm outside (KS1)

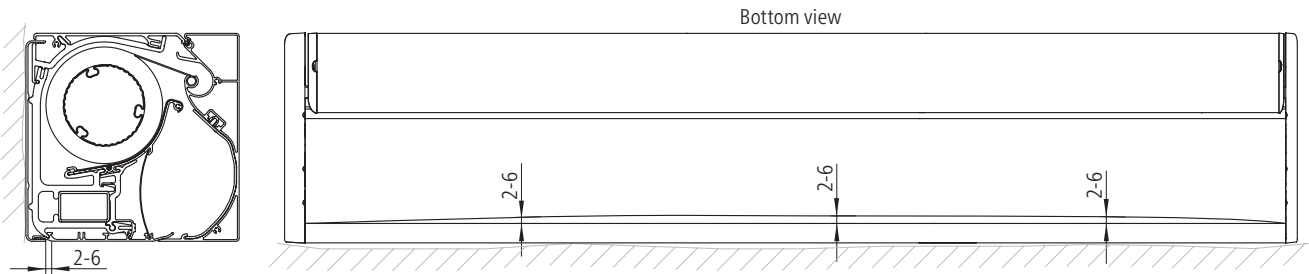


Wall bracket 260 mm inside (KS2)



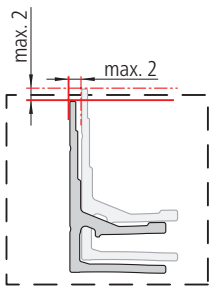
Notes:
 KS1 = outside bracket
 KS2 = inside bracket
 KS3 = centre bracket

Installation allowances

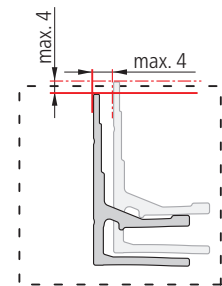
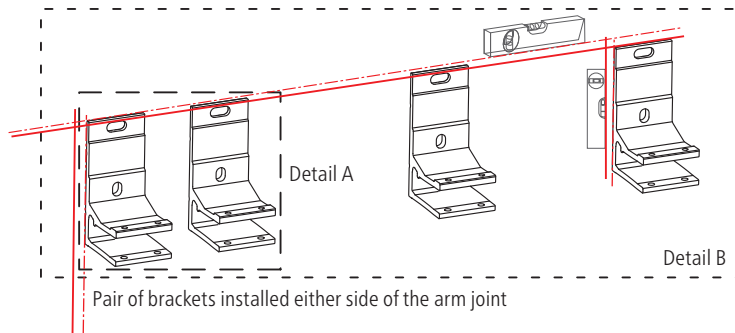


House walls are never totally straight. Which is why there is an automatic compensation function between the bottom profile and back plate with the Kubata. Up to 4 mm can be compensated for as a result. This guarantees that the awning cassette is

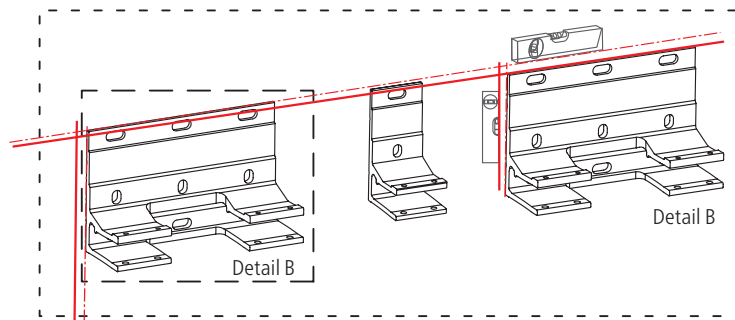
straight and the front profile closes perfectly as a result. A maximum 4 mm shift can be produced on the movable transition between the bottom profile and back plate using this function. It is necessary to align the cassette ideally.



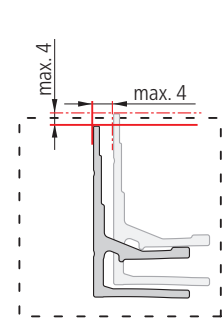
Detail A
Pair of brackets installed either side of the arm joint



Detail B



295 double bracket, positioned around arm joint

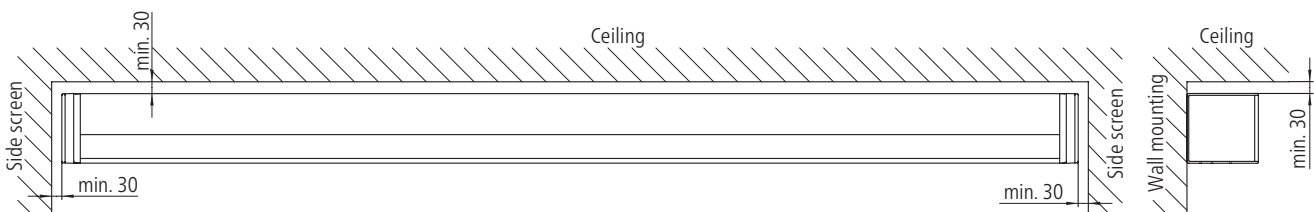


Detail B

Detail A: The tolerance of the brackets around the arm joint is a maximum of 2 mm.

Detail B: The outer brackets tolerance is a maximum of 4 mm.

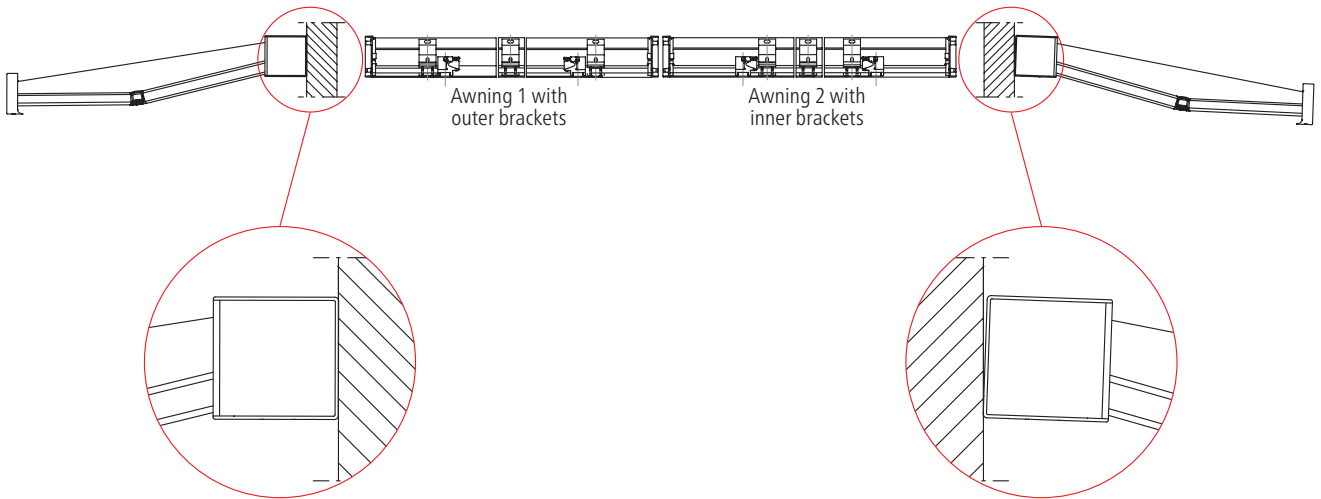
Minimum spacing distances for installation in the niche (wall mounting)



Installation in a row

When installing the Kubata in a row, it should be ensured that the brackets of both awnings are installed either internally or externally. In this way, the housing closes flush onto the wall.

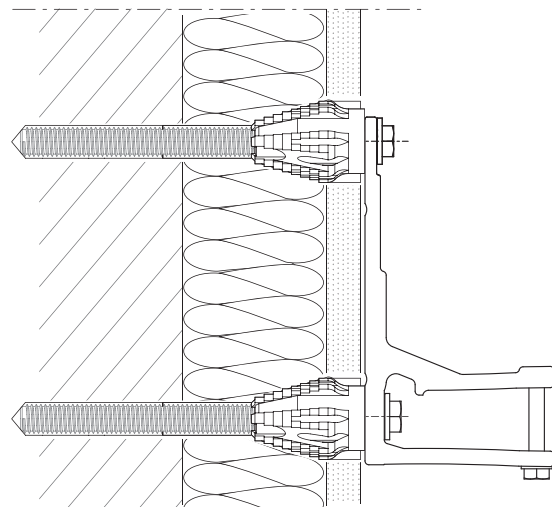
If an awning with inner brackets and one with outer brackets is installed, a slight offset of the housing can occur when retracted, depending on the arm position and the surface.



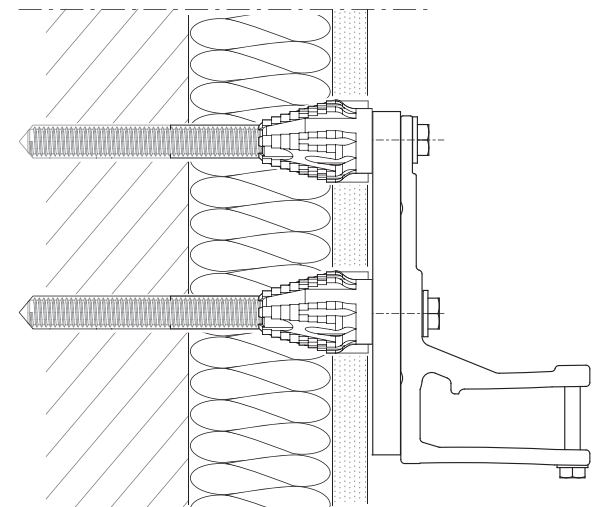
Mounting on non-pressure-resistant surface

Please note that in the case of installation on insulated facades (EIFS), the lower drilled hole of the brackets is to be used.

As an alternative, you can use the middle drilled hole with the reinforced base plates 100 x 180 x 15 mm.



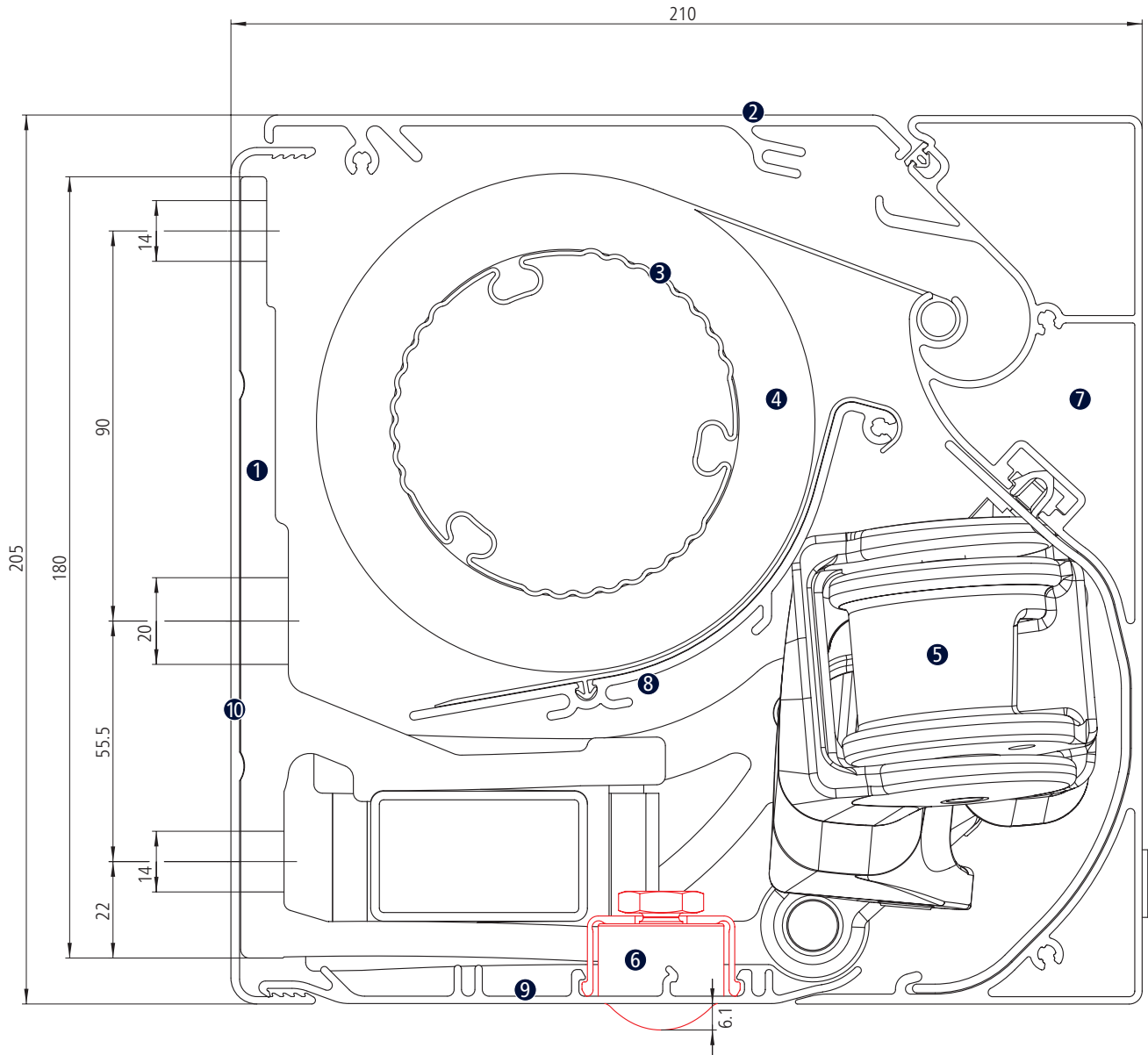
Wall bracket without base plate



Wall bracket with base plate

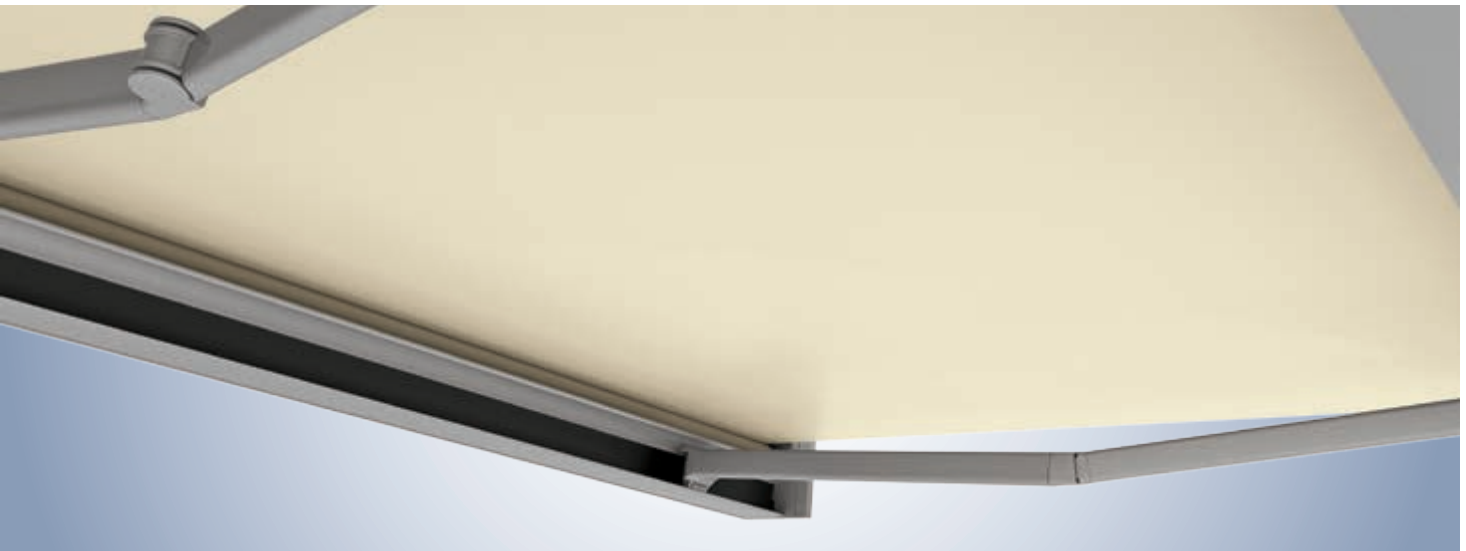
Cross-section

Kubata LED



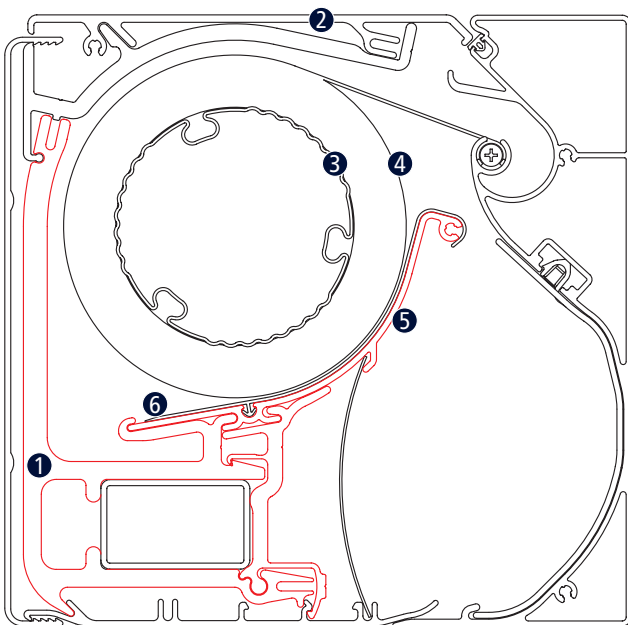
- | | |
|-------------------------|-------------------|
| ① Wall bracket | ⑥ LED spotlight |
| ② Roof profile | ⑦ Front profile |
| ③ Fabric roller bearing | ⑧ Support profile |
| ④ Fabric rolls | ⑨ Bottom profile |
| ⑤ Spring-tensioned arm | ⑩ Back profile |

Kubata Support Profile

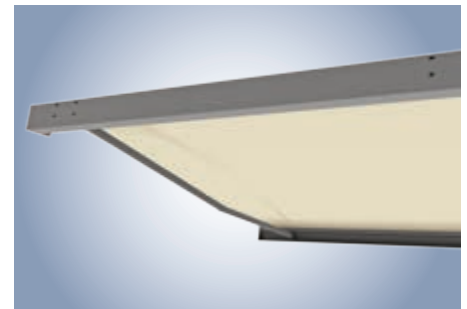


Kubata: support profile across the whole width of the awning

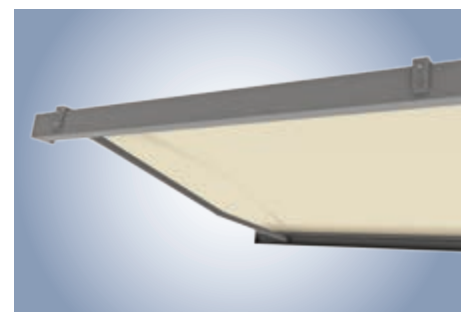
The weinor Opti-Flow-System® and support profile across the whole width of the awning ensure optimum fabric positioning.



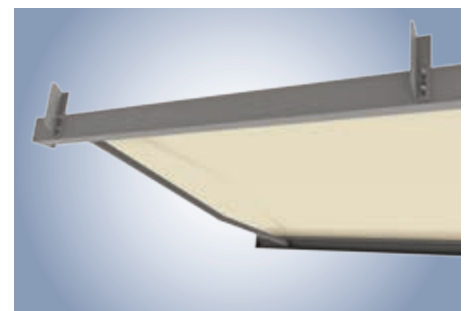
- 1 Housing bracket
- 2 Cassette
- 3 Fabric roller bearing
- 4 Fabric rolls
- 5 Support profile
- 6 Glide profile



Kubata centre bracket: wall mounting (rear view)



Kubata centre bracket: roof mounting (rear view)



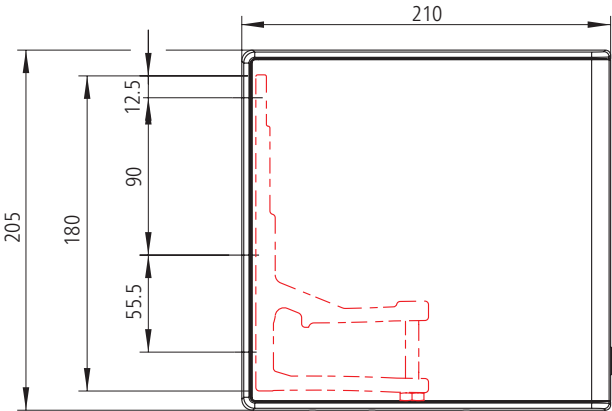
Kubata centre bracket: rafter mounting with rafter bracket (rear view)

Kubata Installation

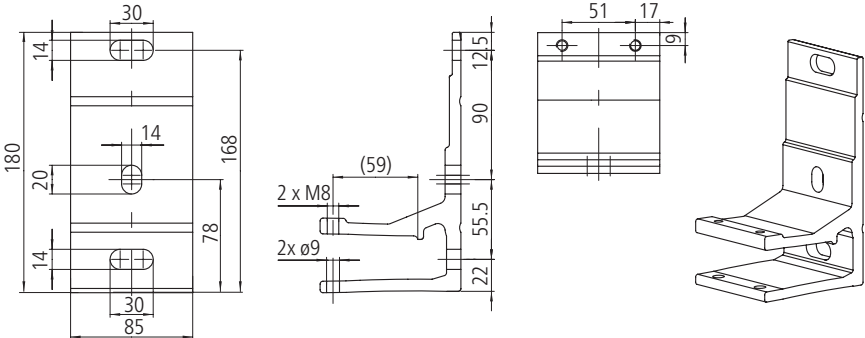
Wall mounting – brackets



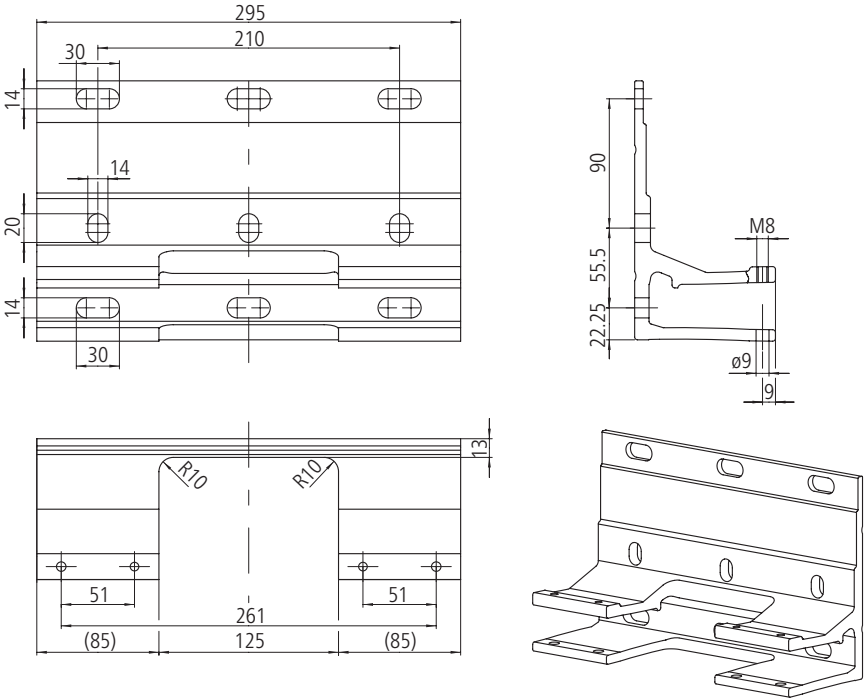
Wall bracket



85 mm wall bracket



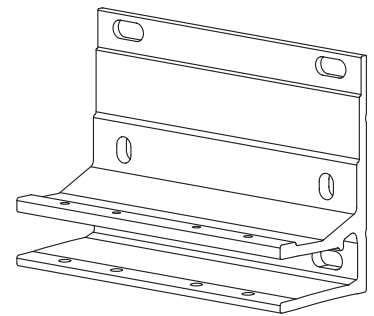
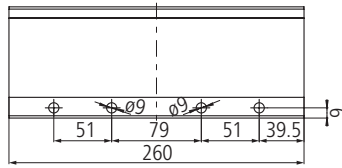
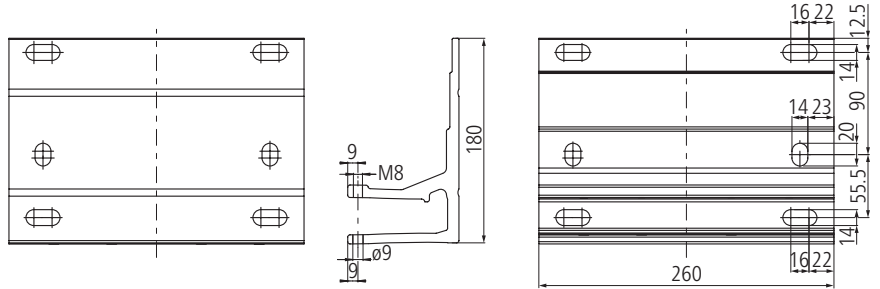
295 mm wall bracket (arm enclosure)



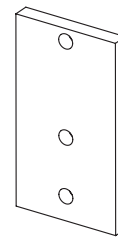
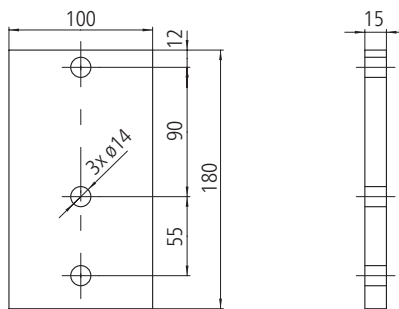
Wall mounting – brackets



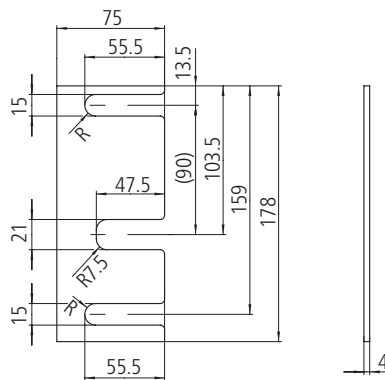
260 mm wall bracket



Baseplate (100 x 180 x 15 mm)



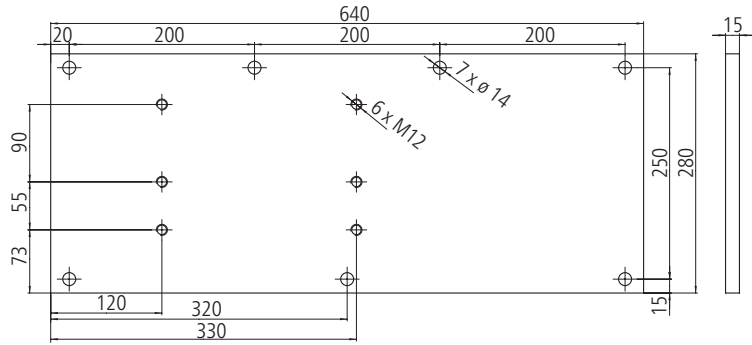
Baseplate, untreated (75 x 178 x 4 mm)



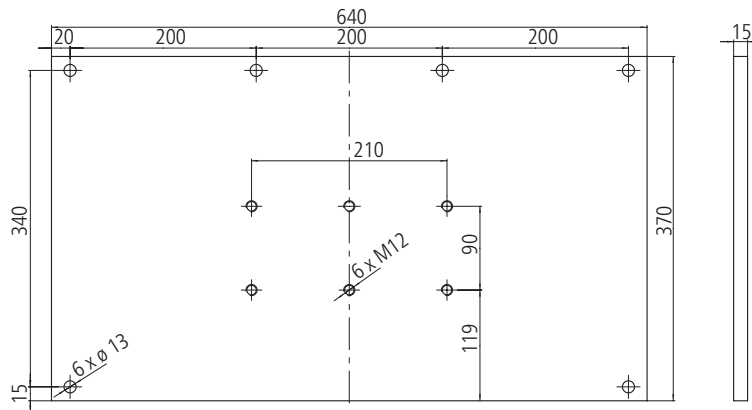
Wall mounting – mounting plates



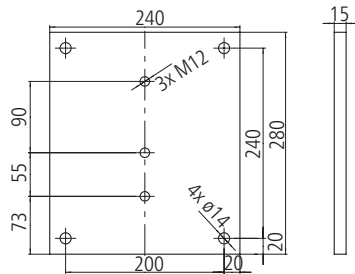
Mounting plate 640 x 280 x 15 mm



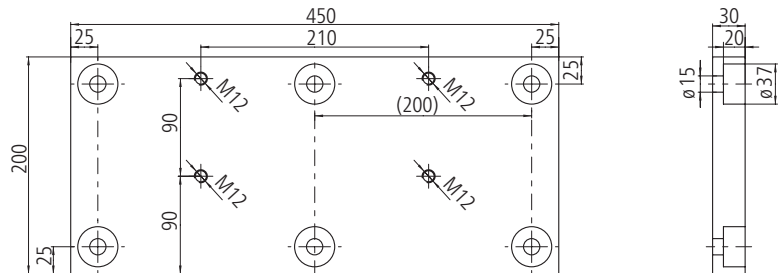
Mounting plate 640 x 370 x 15 mm



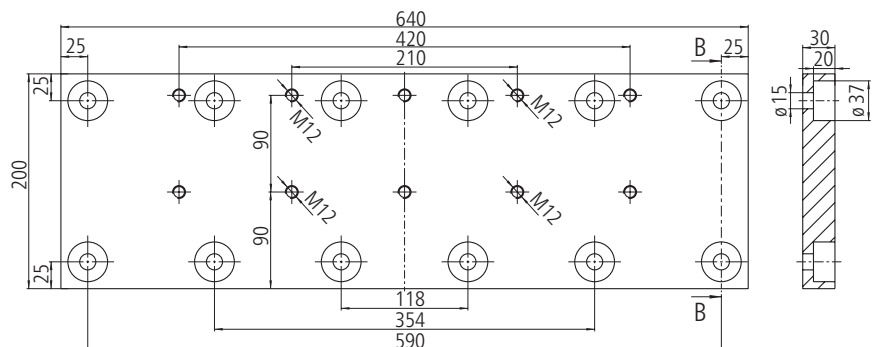
Mounting plate 240 x 280 x 15 mm



Mounting plate 450 x 200 x 30 mm



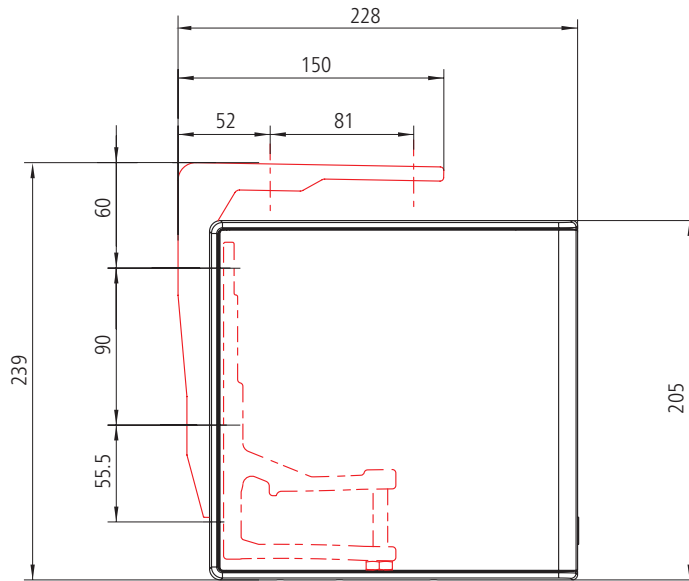
Mounting plate 640 x 200 x 30 mm



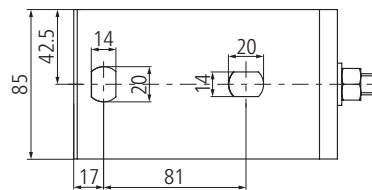
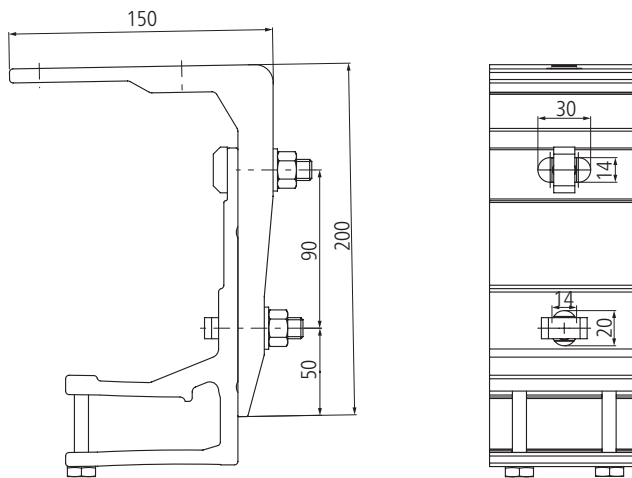
Ceiling mounting



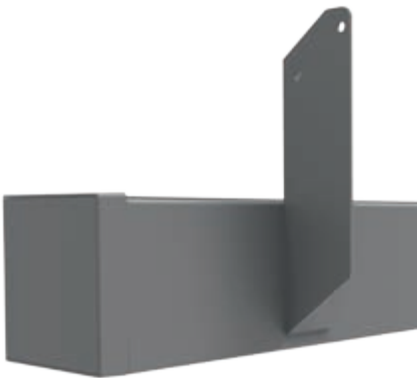
Ceiling bracket



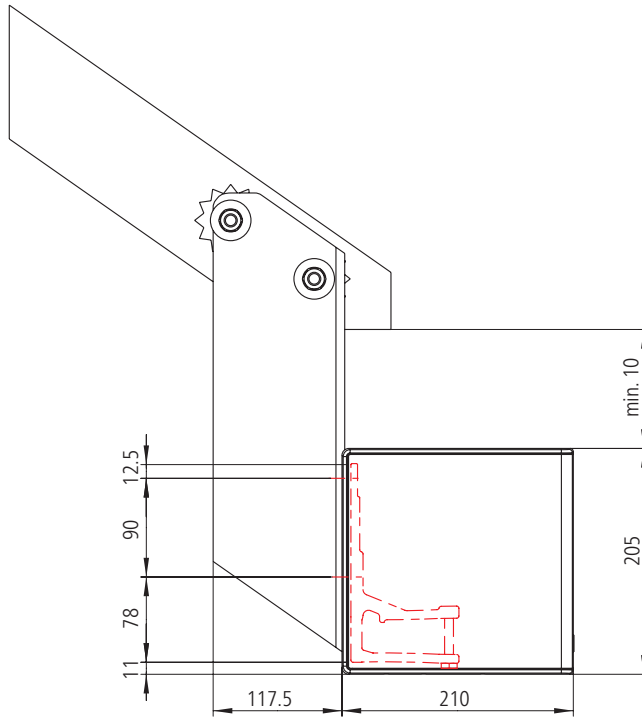
Ceiling bracket



Rafter mounting



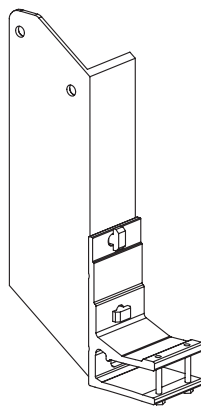
Rafter bracket



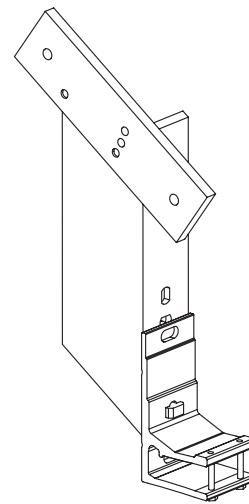
Rafter bracket without mounting plate and wall bracket



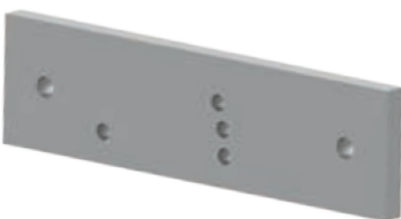
Rafter bracket (right)



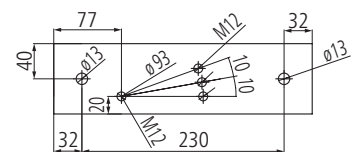
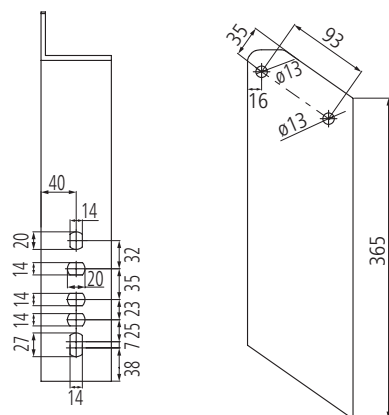
Rafter bracket without mounting plate



Rafter bracket without mounting plate



Mounting plate for 294 x 80 x 15 mm rafter bracket



Extraction forces

The extraction force is the force with which the weight of the awning and the wind load pull on each upper fixing. The tables indicate this force in N per upper fixing. It varies depending on the awning size and the wall bracket /mounting plate used.

Selecting the wall bracket and anchoring system:

1. Consult relevant table for extraction force per fixing for selected awning size.
2. Select a wall bracket/mounting plate for which there is fixing material which can resist the indicated extraction force. Remember to take into account the spacing, the area which will be damaged if the fixing breaks out, the type of fixing material used and the mounting base.

See separate bracket overview for other bases.

Ceiling installation (on C20/25 concrete)

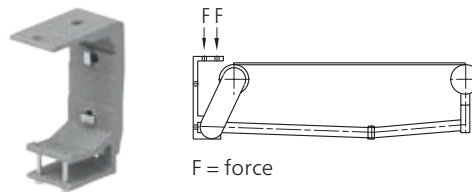
Extraction forces in N for ceiling mounting

Please note the limitations of number of brackets per arm depending on width/projection.

Width in cm	Projection in cm					
	150	200	250	300	350	400
200	1022					
250	1219	1794				
300	1417	2084	2920			
350	1615	2375	3318	4453		
400	1812	2665	3717	4975	3155	
450	2015	2960	4120	5503	3488	4877
500	2155	3193	4461	2999	4227	5325
550	2349	3479	4855	3259	4601	5790
600	2542	3764	5249	3898	4975	6255
650	2735	4050	5644	4190	5349	6720
700	2928	4336	6655	4482		

Taking into account the width/projection limitations, two brackets per arm can be used instead of one per arm. This halves the specified extraction forces.

Does not apply to the sizes framed in red on the table above.



- 1x ceiling bracket including
1x wall bracket 85 mm per arm
or
- 2x ceiling bracket including
2x wall bracket 85 mm per arm
Number of fixings: 4 or 8

Please note:
from a width of 451cm 1 x additional ceiling and wall bracket incl. as centre bracket is required. This means an additional 2 fixings will be required.

Extraction forces

Wall mounting on C20/25 concrete with up to 200 mm of facing (non pressure resistance surface)

Brackets without mounting plate

Extraction force in N per upper fixing material of wall bracket

Please note the width/projection limitations for number of brackets per arm.

- 1x wall bracket 85 mm per arm or
2x wall bracket 85 mm per arm
Number of fixings: 4 or 8
- 1x wall bracket 260 mm per arm or
2x wall bracket 260 mm per arm
Number of fixings: 8 or 16
- 1x wall bracket 295 mm per arm
Number of fixings: 12

Please note:
from a width of 451cm 1 x additional wall bracket as centre bracket is required. This means an additional 2 fixings will be required.

Width in cm	Projection in cm					
	150	200	250	300	350	400
200	1496					
	748					
	499					
250	1789	2625				
	894	1312				
	596	875				
300	2081	3051	4261			
	1040	1526	2130			
	694	1017	1420			
350	2373	3478	4843	6475		
	1187	1739	2421	3237		
	791	1159	1614	2158		
400	2666	3904	5425	7234	4559	
	1333	1952	2713	3617	2279	
	889	1301	1808	2411	3039	
450	2958	4331	6007	7994	5038	7045
	1479	2165	3004	3997	2519	3522
	986	1444	2002	2665	3359	4697
500	3250	4758	6590	4377	6158	7719
	1625	2379	3295	2188	3079	3860
	1083	1586	2197	2918	4105	5146
550	3543	5184	7172	4756	6703	8394
	1771	2592	3586	2378	3351	4197
	1181	1728	2391	3171	4469	5596
600	3835	5611	7754	5713	7248	9069
	1918	2805	3877	2857	3624	4534
	1278	1870	2585	3809	4832	6046
650	4127	6037	8337	6142	7793	9743
	2064	3019	4168	3071	3897	4872
	1376	2012	2779	4095	5196	6495
700	4420	6464	9878	6571		
	2210	3232	4939	3286		
	1473	2155	3293	4381		

Taking into account the width/projection limitations, two brackets per arm can be used instead of one per arm. This halves the specified extraction forces.

Does not apply to the sizes framed in red on the table above.

Does not apply to wall bracket 295 mm.

Extraction forces

Wall mounting on C20/25 concrete with up to 200 mm of facing (non pressure resistance surface)

Brackets with mounting plate

Extraction force in N per upper fixing material of wall bracket

Please note the width/projection limitations for number of brackets per arm.

- 1x mounting plate 240x280x15 including 1x wall bracket 85 mm per arm
Number of fixings: 8
- 1x mounting plate 450x200x30 including 1x wall bracket 85 mm per arm or
- 1x mounting plate 450x200x30 including 2x wall bracket 85 mm per arm
Number of fixings: 12
- 1x mounting plate 640x200x30 including 1x wall bracket 85 mm per arm or
- 1x mounting plate 640x200x30 including 2x wall bracket 85 mm per arm
Number of fixings: 24
- 1x mounting plate 640x280x15 including 1x wall bracket 85 mm per arm or
- 1x mounting plate 640x280x15 including 2x wall bracket 85 mm per arm
Number of fixings: 12
- 1x mounting plate 640x370x15 including 1x wall bracket 85 mm per arm or
- 1x mounting plate 640x370x15 including 2x wall bracket 85 mm per arm
Number of fixings: 12

Please note:

- from 451 cm width** is additional
 - for mounting plates with a thickness of **15 mm**
1x shim plate 100 x 180 x 15 incl.
1x wall bracket 85 mm as centre console required
 - for mounting plates with a thickness of **30 mm**
2x shim plates 100 x 180 x 15 incl.
1x wall bracket 85 mm as centre console required.
- The number of fixings increases by 2.

Width in cm	Projection in cm					
	150	200	250	300	350	400
200	284					
	307					
	153					
	136					
	100					
250	339	497				
	366	535				
	183	268				
	163	239				
	120	175				
300	395	578	806			
	426	622	866			
	213	311	433			
	190	277	387			
	139	204	284			
350	450	658	916	1223		
	486	709	985	1314		
	243	355	492	657		
	216	316	439	587		
	159	232	323	432		
400	506	739	1026	1366		
	546	796	1103	1468	1847	
	273	398	551	734	923	
	243	355	492	656	826	
	179	261	362	482	607	
450	561	820	1136	1510		
	606	883	1221	1622	2041	2851
	303	441	611	811	1020	1425
	269	394	545	725	913	1276
	198	289	401	533	671	938
500	617	901	1246			
	665	970	1340	1776	2495	3124
	333	485	670	888	1248	1562
	296	432	598	793	1116	1398
	218	318	440	583	820	1028
550	672	981	1356			
	725	1057	1458	1930	2716	3397
	363	528	729	965	1358	1698
	323	471	651	862	1214	1520
	237	346	479	634	893	1117
600	728	1062	1466			
	785	1144	1576	2319	2937	3670
	393	572	788	1159	1468	1835
	349	510	704	1036	1313	1642
	257	375	517	762	966	1207
650	783	1143	1576			
	845	1231	1695	2493	3158	3943
	422	615	847	1246	1579	1971
	376	549	756	1114	1412	1764
	276	403	556	819	1038	1297
700	838	1224	1868			
	905	1318	2009	2667		
	452	659	1004	1333		
	402	587	896	1191		
	296	432	659	876		



Extraction forces



Rafter mounting



Shear forces in N for rafter mounting



Please note the width/projection limitations for number of brackets per arm.

Rafter brackets are available as both left and right handed

-  1x rafter bracket including 1x wall bracket 85 mm per arm or
-  2x rafter bracket including 2x wall bracket 85 mm per arm
Applies to two brackets per arm on a rafter.

-  1x rafter bracket including 1x wall bracket 85 mm per arm or
-  2x rafter bracket including 2x wall bracket 85 mm per arm
Applies to two brackets per arm, each with separate rafters.

-  1x rafter bracket with mounting plate including 1x wall bracket 85 mm per arm or
-  2x rafter bracket with 2x mounting plate including 2x wall bracket 85 mm per arm
Applies to two brackets per arm on a rafter.

-  1x rafter bracket with mounting plate including 1x wall bracket 85 mm per arm or
-  2x rafter bracket with 2x mounting plate including 2x wall bracket 85 mm per arm
Applies to two brackets per arm, each with separate rafters.

Please note:
from 451 cm width 1x rafter bracket incl. 1x wall bracket 85 as centre bracket is additionally required.

Width in cm	Projection in cm					
	150	200	250	300	350	400
200	1442					
	1442					
	636					
	636					
250	1721	2508				
	1721	2508				
	756	1075				
	756	1075				
300	1999	2913	4054			
	1999	2913	4054			
	877	1246	1708			
	877	1246	1708			
350	2278	3319	4607	6151		
	2278	3319	4607	6151		
	997	1418	1939	2564		
	997	1418	1939	2564		
400	2557	3724	5160	6872	8663	
	2557	3724	5160	6872	4332	
	1118	1590	2171	2863	3587	
	1118	1590	2171	2863	1794	
450	2841	4134	5718	7598	9578	13369
	2841	4134	5718	7598	4789	6685
	1244	1767	2407	3167	3968	5501
	1244	1767	2407	3167	1984	2751
500	3062	4482	6213	8262	11621	14590
	3062	4482	6213	4131	5811	7295
	1307	1881	2581	3409	4767	5968
	1307	1881	2581	1705	2384	2984
550	3337	4883	6761	8978	12649	15865
	3337	4883	6761	4489	6325	7933
	1423	2048	2808	3704	5188	6489
	1423	2048	2808	1852	2594	3245
600	3611	5284	7310	10760	13677	17139
	3611	5284	7310	5380	6839	8570
	1539	2216	3035	4430	5609	7009
	1539	2216	3035	2215	2805	3505
650	3885	5685	7858	11568	14706	18414
	3885	5685	7858	5784	7353	9207
	1655	2383	3262	4762	6030	7530
	1655	2383	3262	2381	3015	3765
700	4160	6086	9285	12376		
	4160	6086	9285	6188		
	1771	2550	3844	5094		
	1771	2550	3844	2547		

Taking into account the width/projection limitations, two brackets per arm can be used instead of one per arm. This halves the specified extraction forces.

Does not apply to the sizes framed in red on the table above.
Applies only to two brackets per arm on separate rafters each!

