WeiTop Terrazza

How to obtain your WeiTop Terrazza?

1. Rough measurements provided by the end user on request; the pros take exact measurements at this stage.
2. **weinor** specialist dealer puts in a request for a price. weinor submits an offer to the specialist dealer. Lead time depends on the degree of difficulty and workload.
3. Specialist dealer sells the roofing to the end user; **weinor** specialist dealer takes exact measurements.
4. Specialist dealer forwards order for roof to weinor; with installation training if necessary.
5. **weinor** plans the roof; sends an order confirmation to the specialist partner; lead time depends on degree of difficulty and workload.
6. Specialist dealer obtains written confirmation from the end user; specialist dealer gives **weinor** approval at commercial and technical level.
7. **weinor** produces, delivers and calculates the ordered item. Lead time depends on the degree of difficulty and workload.
8. The **weinor specialist dealer** pays for and installs the goods professionally to the end user's full satisfaction.

Scope of delivery – WeiTop Terrazza

All small parts are supplied as standard which are required to install the WeiTop Terrazza roof.
The items listed on the right are not included in the delivery. Please also note that designs may include deviating or additional elements compared with the commercial or technical order documents.

Not supplied as standard:

- Fixings required to affix the roof to the wall and floor.
- Fixings required for the glazing elements.
- Glazing packers, silicone, Klebedicht adhesive/sealant, pre-compressed sealing tape, foil, filler cord, insulating material, PU foam.
- Plastic brackets above the wall connection.
- Spacers to line the glazing elements around the flooring.

Last updated: 01.05.2009

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Important notes on the WeiTop Terrazza, measuring and installation

1. Measuring / Patio planning

- Taking exact measurements is of fundamental importance to successfully processing the order. The measurements are the basis for producing the roof and establishing all other required building conditions.
- weinor needs to receive the requested roof measurements from you. Please ensure that you account for the following in particular: wall protrusions; downpipes, etc.
- Please also consider that the roof must be well-aligned.
- Permanently mark the setting-out points and the location of any on-site peculiarities you notice.
- Wherever possible, try to take digital photos of the place of installation. Your fitters will be grateful for any details you can supply in advance by taking photos. weinor employees then have a better idea of the site of installation and may be able to provide you with non-binding useful information.
- Also measure the current situation at the site of installation. This is useful to discuss any necessary changes without having to measure the site again.

2. WeiTop Terrazza Design

- You can select any roof pitch between 5 and 45 degrees. If feasible for the site of installation, a roof pitch of at least 10 degrees should be chosen as this facilitates the self-cleaning process for the glass.
- As a rule, the gutter and wall connection are supplied as a single piece with a width of 680 cm.
- If larger widths are required, the sections are joined together in accordance with regulations determined by weinor. Special requests are taken into account wherever possible.
- Aluminium has a relatively high thermal expansion coefficient. If larger widths are selected, please add around 3 mm play per running metre.
- The roof can be drained via the gutter and the posts into the on-site drainage system.
- The gutter can be optionally fitted with a leaf trap to keep dirt out of the gutter.
- As a rule, the posts are placed at the outermost points.
- A downpipe can be supplied inside the post as an optional extra.

3. Awnings and shading

- Choose from a WGM 1030, WGM 2030 Design, WGM Cabezza conservatory awning added above or a WGM Sottezza conservatory awning added below to shade the WeiTop Terrazza roof.

Last updated: 01.05.2009

Important notes on the WeiTop Terrazza, measuring and installation

4. Installation

- Check the on-site building conditions: foundations, base plate, setting-out points, masonry.
- Check the drawing that has been prepared by Engineering.
- Groundwork:
- Check the roof contents with the item list/drawing prepared by Engineering.
- Check the accessory contents with the item list/drawing prepared by Engineering.
- Unpack the contents of the delivery.
- Check for damage.
- Begin the installation work.
- Assembly instructions are provided to assist with the installation.

5. Complaints

If something does not meet your satisfaction:

- Photograph the unit that is the subject of the complaint (digital photos wherever possible).
- Make a detailed note of the causes, e.g. the actual dimensions of the supplied unit. Our engineers can then compare the actual and envisaged dimensions and swiftly determine the causes.
- Make a detailed note of the dimensions that you had expected. Our engineers can often draw important conclusions and pass on further tips.
- Contact weinor's internal sales office immediately.

Last updated: 01.05.2009

WeiTop Terrazza

Table of Contents (Complete)

Last updated: 04.03.2009

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WeiTop Terrazza

Table of Contents (Complete)

Last updated: 04.03.2009

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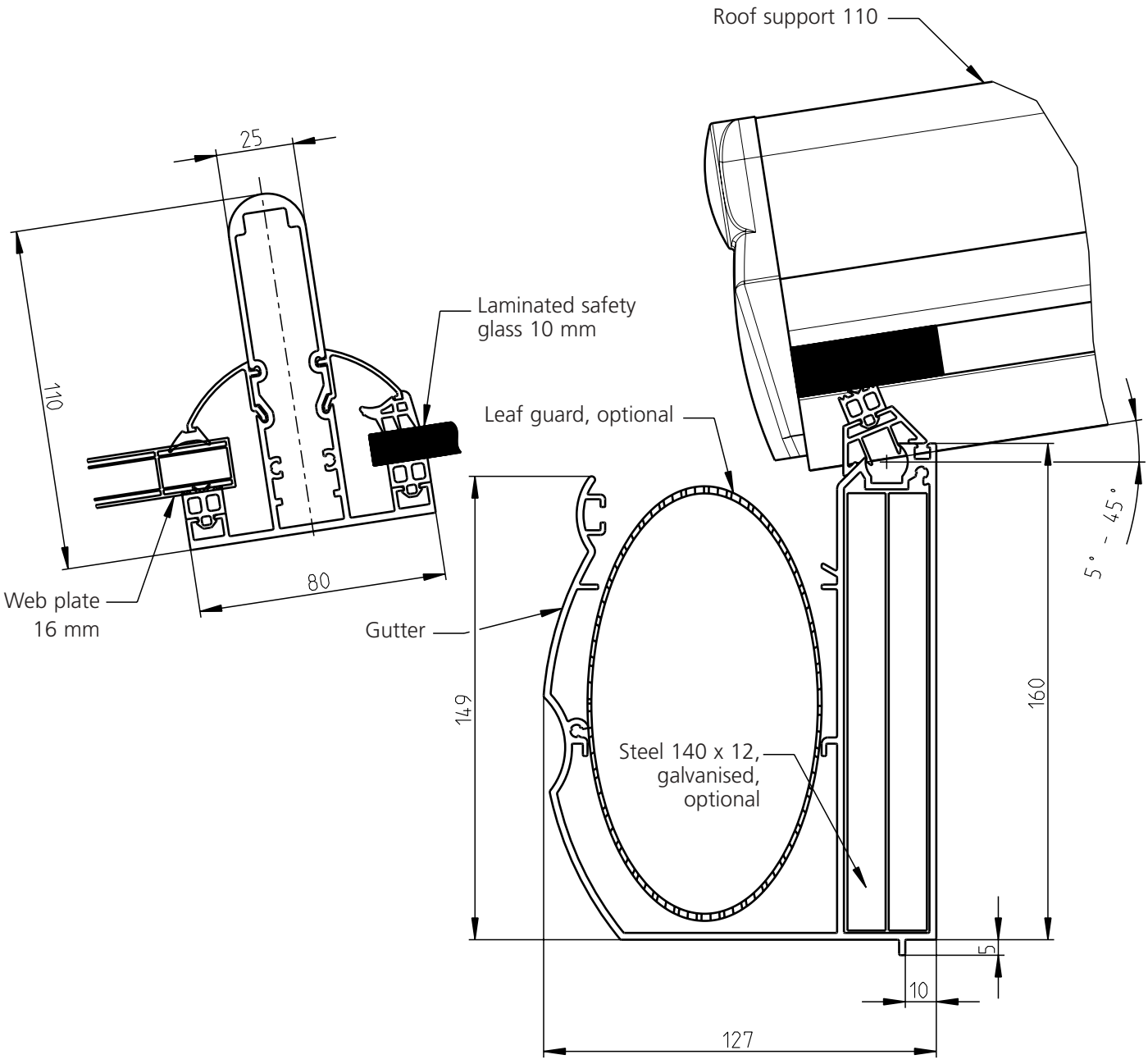
WeiTop Terrazza S

Sectional View
Guttering

Standard:
- Roof support 110
- Gutter without steel

Optional against surcharge:
- Leaf guard
- Steel in gutter (1x or 2x)



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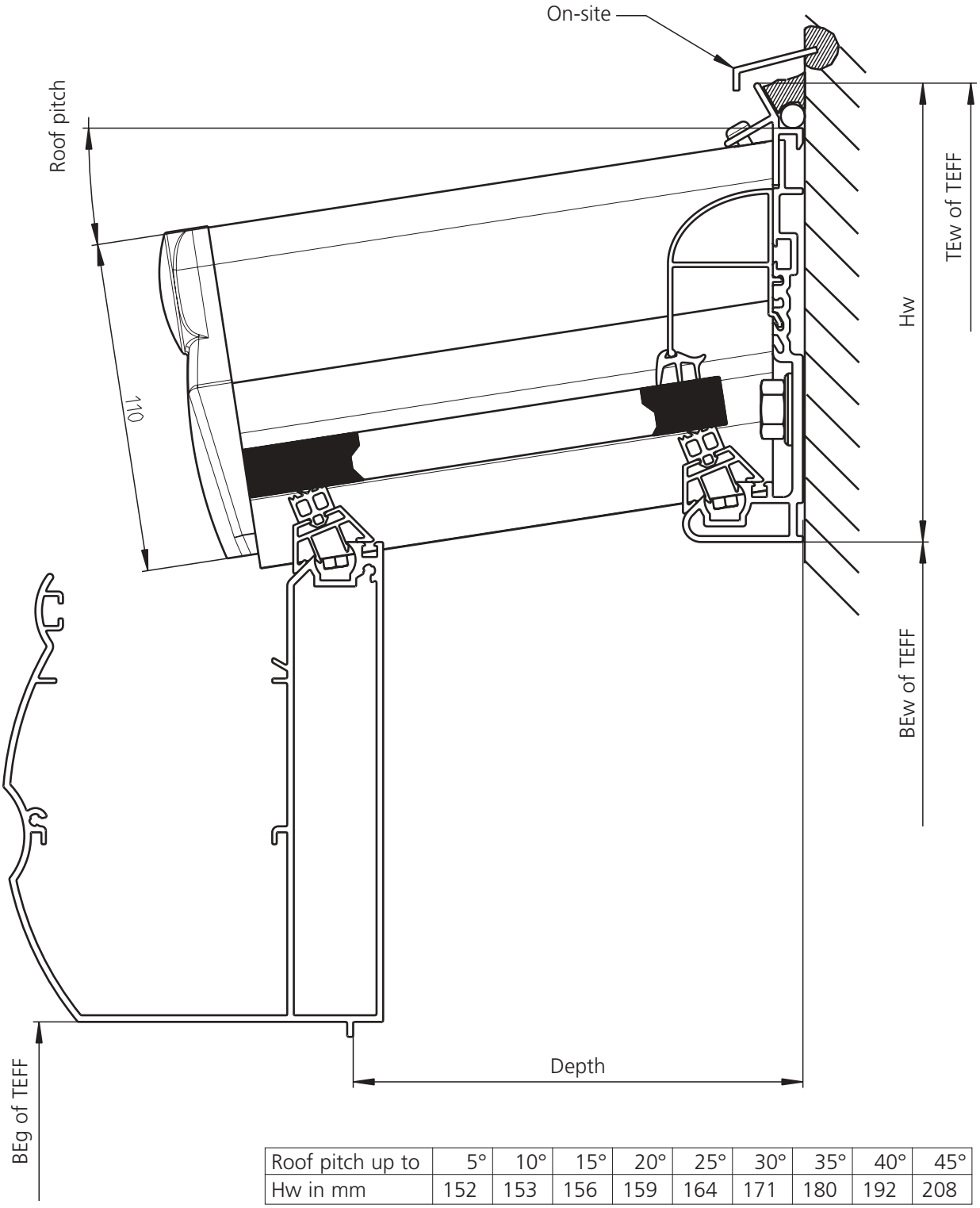
WeiTop Terrazza S

Height Details
Sectional View



Roof pitch up to	5°	10°	15°	20°	25°	30°	35°	40°	45°
Hw in mm	152	153	156	159	164	171	180	192	208

Legend:
Hw = Height of wall connections
TEFF = Top edge of finished floor level
BEg = Bottom edge of gutter
BEw = Bottom edge of wall connection
TEw = Top edge of wall connection

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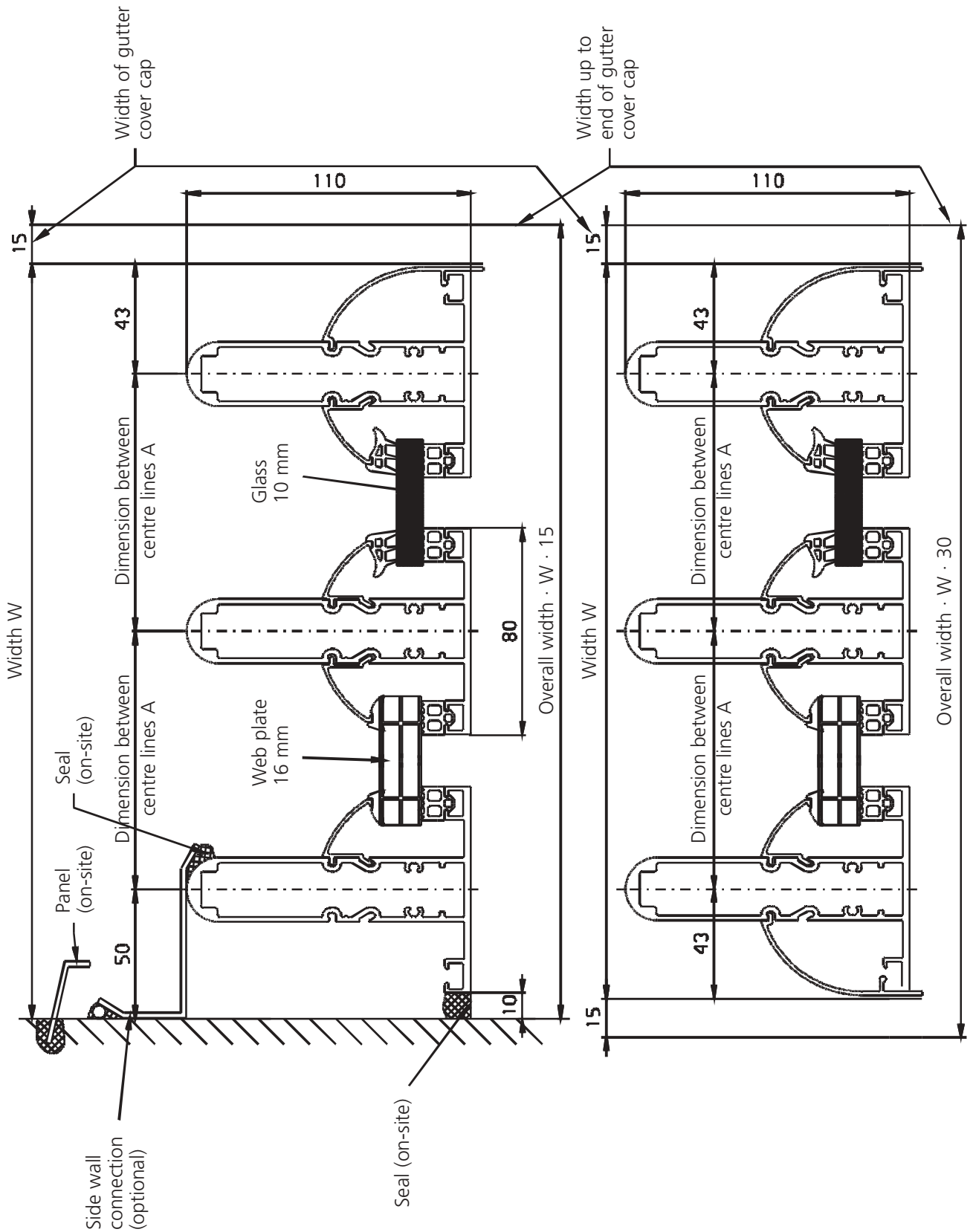
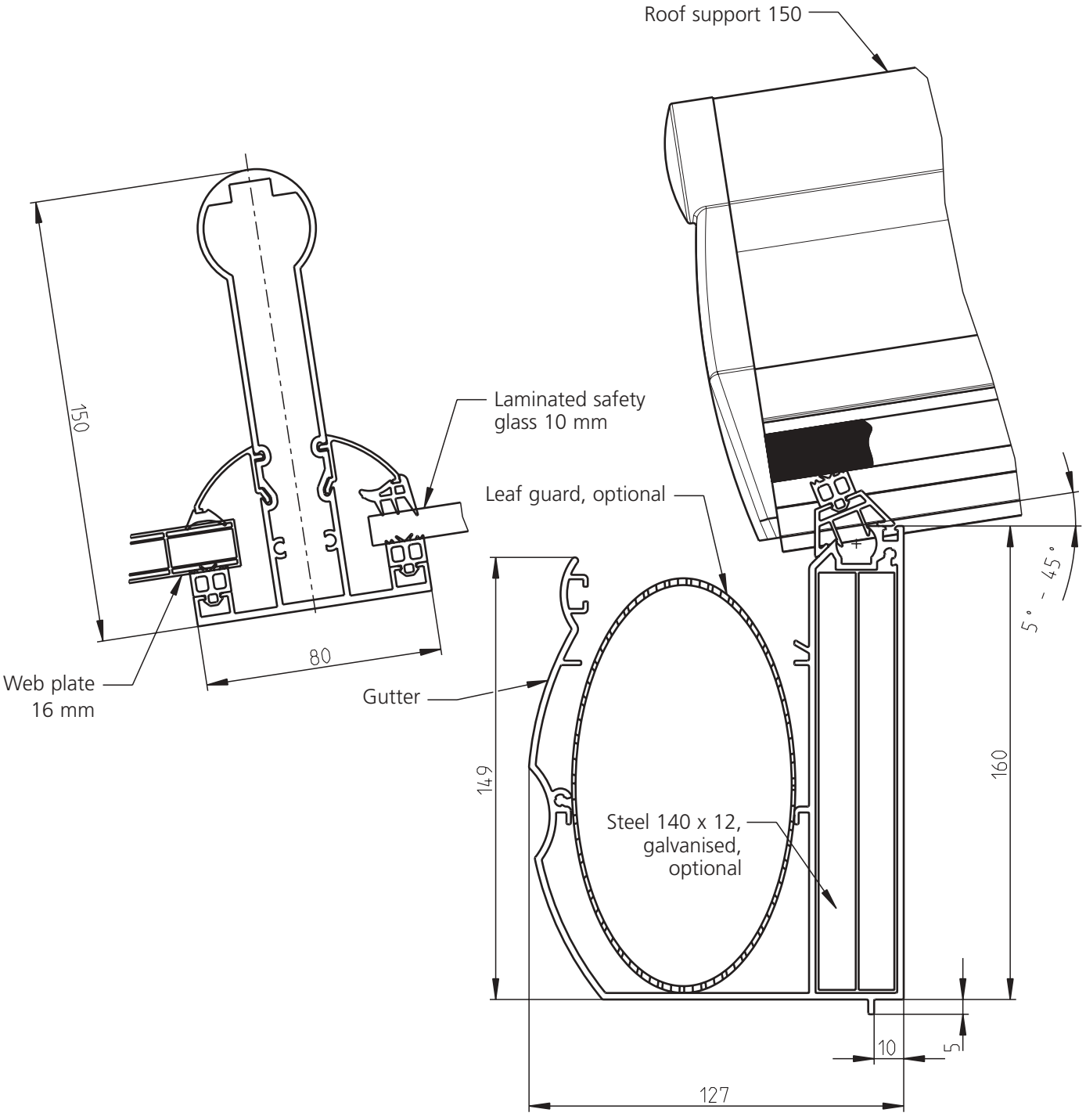


WeiTop Terrazza L

Sectional View
Guttering

Standard:
- Roof support 150
- Gutter without steel

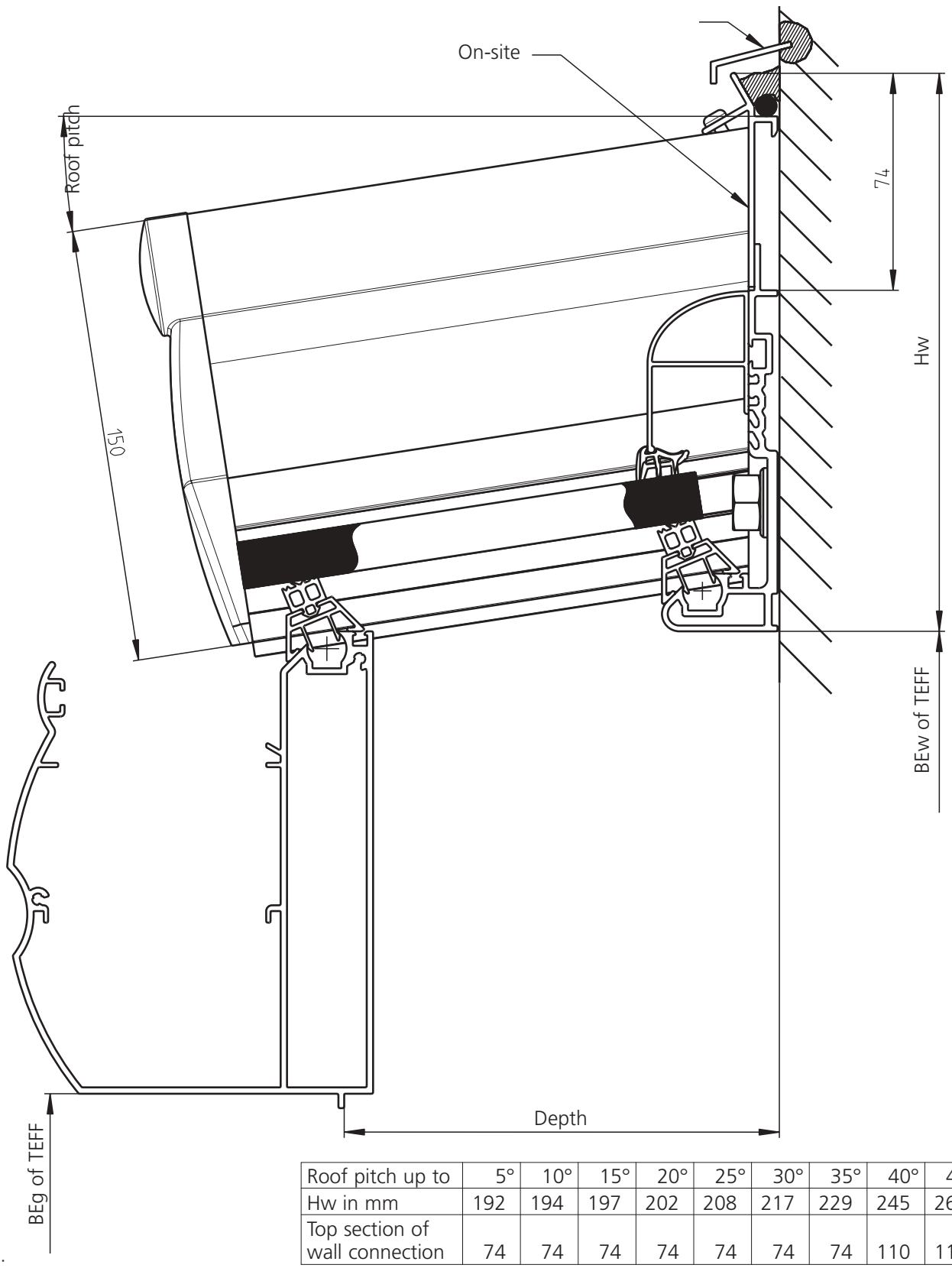
Optional against surcharge:
- Leaf guard
- Steel in gutter (1x or 2x)



Last updated: 30.04.2009

WeiTop Terrazza L

Height Details
Sectional View



Roof pitch up to	5°	10°	15°	20°	25°	30°	35°	40°	45°
Hw in mm	192	194	197	202	208	217	229	245	264
Top section of wall connection	74	74	74	74	74	74	74	110	110

Legend:
Hw = Height of wall connections
TEFF = Top edge of finished floor level
BEg = Bottom edge of gutter
BEw = Bottom edge of wall connection
TEw = Top edge of wall connection

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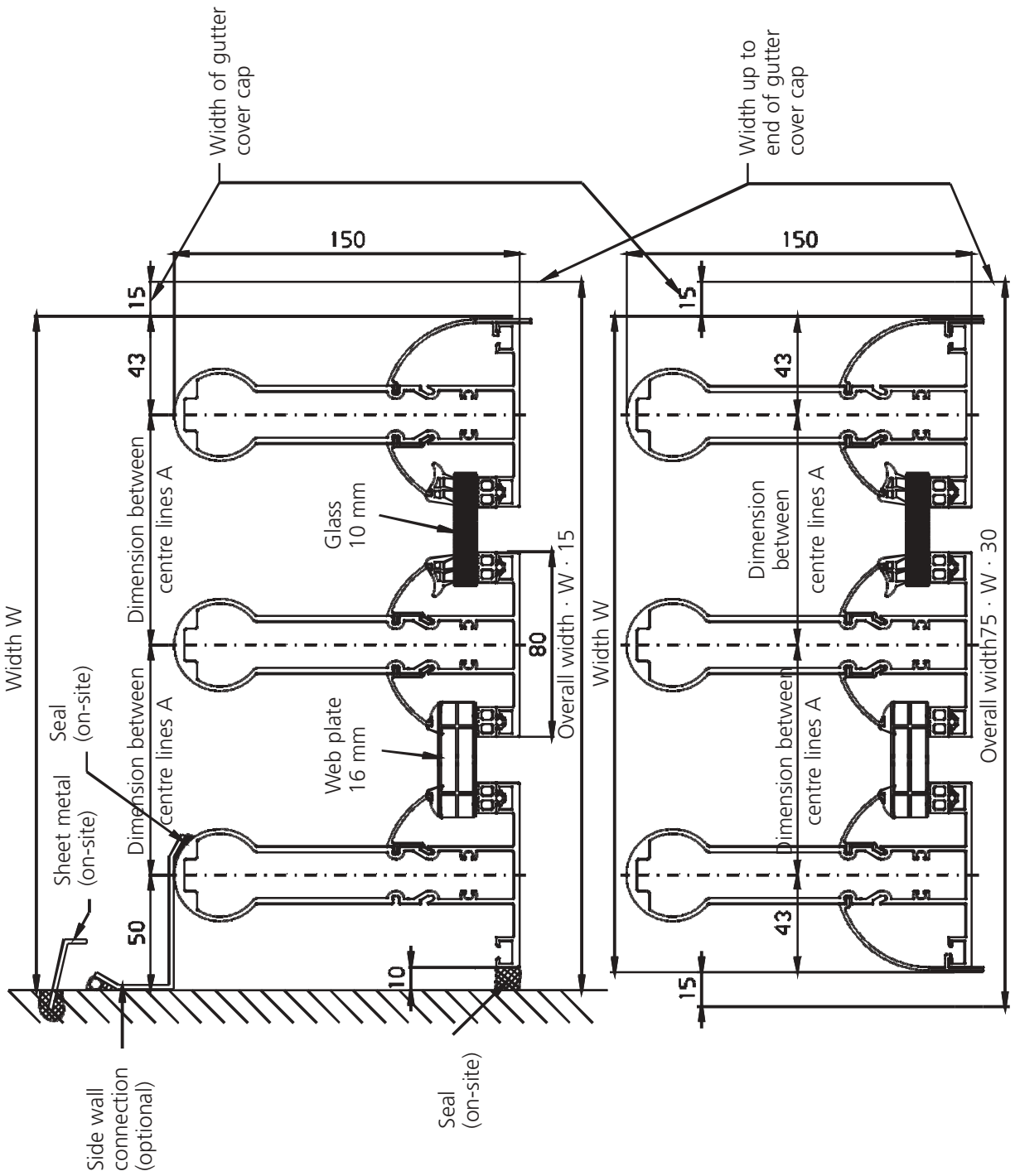

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This diagram can be used to calculate the approximate difference D from the BEg to the BEw. Using the formulae given above, you can then calculate the BEw and the TEw from the TEFF.
Calculate the depth T and the intended roof pitch a for your roof. By calculating the point of intersection of the depth using the roof pitch and by moving vertically to the left, you can read the difference D from the BEg to the BEw. Always take into account the type of roof being used (Terrazza S or L) when calculating the TEw. The Hw values for Terrazza S and L can be found on Pages 1.1 and 2.1 of this product folder.

Formulae:
BEw · BEg · D
TEw · BEw · Hw

Examples:
Terrazza S
T · 4000
a · 20°
BEg · 2000
D · 1620
BEw · 3620
Hw · 159
TEw · 3779

Terrazza L
T · 5300
a · 5°
BEg · 2100
D · 630
BEw · 2730
Hw · 192
TEw · 2922

Last updated: 01.04.2004

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Information on
Gutter Selection

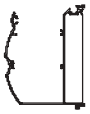
1. General Comments:
The values shown in the tables and diagrams are guidelines for calculating the gutter to be used and are used in the pre-calculation and calculation during the planning stage. The values given are only valid under the stated conditions. The dimensions and fitting of the posts and post support brackets, and the use of corner joints, stays, etc. must be checked and requested for each individual job.
All calculations have been made on the basis that the posts are located in their standard position, i.e. at the outermost points. Heavier snow loads or larger roof widths available on request and subject to other initial conditions.

2. Legend:

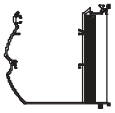
GU = Gutter	RS = Roof support
WG = Conservatory/roofing	f = Degree of bow

3. Weights:
The weight of the gutter section, including any reinforcements that may be added, is given below. Parts attached to the gutter have not been included in the weight. Views of the individual gutters can be found in the product folder.

GU without steel
4.1 kg/m



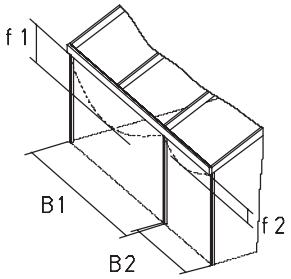
GU with steel
1x 140 x 12
17.2 kg/m

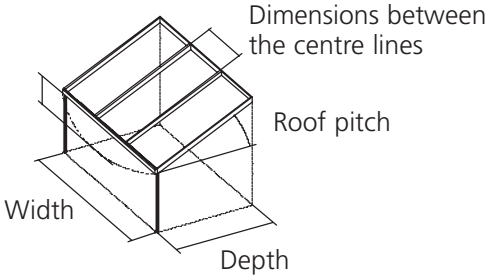


GU with steel
2x 140 x 12
30.3 kg/m

Please note that, depending on the type and length, the gutter may weigh up to 210 kg.
Please ensure that you have a suitable workforce or lifting gear available at the place of installation.

4. Dimensions:
The figures below show the dimensions used in the tables and diagrams below.





5. Reading values from the diagrams and tables:
The diagrams and tables found on the following pages contain the maximum possible width (incl. W1) for a given depth, without any additional posts. These can be referred to in order to read the width of the gutter being used.
Example: there is a depth of 4 m, and a gutter (GU) without steel is being used, and the task is to calculate the maximum width and/or the maximum spacing between two posts (outside of post to outside of post).

- Determining the values using the diagram
  1. Look for the required depth on the X-axis (4 m).
  2. Move vertically upwards as far as the point where the respective GU characteristic intersects (GU without steel).
  3. Once at the point of intersection, move horizontally to the left to read the corresponding width (3.5 m).
- Determining the values using the table
  1. Find the required depth in the uppermost row of the table (4 m).
  2. Now find the required gutter type in the left-hand table column (GU without steel).
  3. At the point where the selected column and the row intersect you will find the corresponding width (3.5 m).

The determined width of 3.5 m indicates how far the two posts may be spaced apart (outside of post to outside of post). Based on this information, it is clear that, under the given conditions, a roof may not exceed a width of 3.5 m if no additional posts are used. If the roof is wider, the distance between the posts (W1 or W2, see sketch above) may not exceed 3.5 m.

Below are other examples of values which can also be derived from the diagrams and tables:

Known		Needed
Requested roof width without centre post	Depth	GU type
Requested roof width without centre post	GU type	Depth

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WeiTop Terrazza

Table – Gutter
Snow Load 750 N/m²

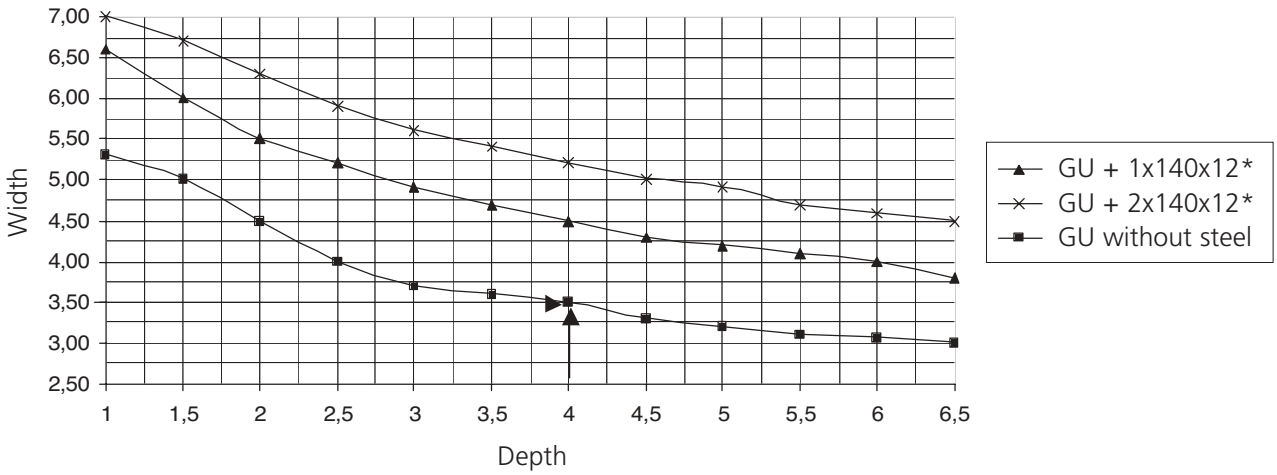
1. Starting data:

Snow load:	750	N/m²	acc. to DIN 1055 Part 5	Min distance between centre lines:	70 cm
Wind load:	500	N/m²	acc. to DIN 1055 Part 4 and 5; up to 8m elevation	Max. weight RS:	170 N/m
Glass load:	250	N/m²	Equivalent to 10 mm glass	Max. GU bow f:	L/200 mm
Roof pitch:	5 to 45	degrees			

2. Table:

Depth in m / GU Type	max. width in m											
	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
GU without steel	5.30	5.00	4.50	4.00	3.70	3.60	3.50	3.30	3.20	3.10	3.05	3.00
GU + 1x140x12*	6.60	6.00	5.50	5.20	4.90	4.70	4.50	4.30	4.20	4.10	4.00	3.80
GU + 2x140x12*	7.00	6.70	6.30	5.90	5.60	5.40	5.20	5.00	4.90	4.70	4.60	4.50

3. Diagram:



Legend:
RS = Roof support
GU = Gutter

*on request and only possible if certain conditions are satisfied

Last updated: 01.04.2004

Table – Gutter
Snow Load 1250 N/m²

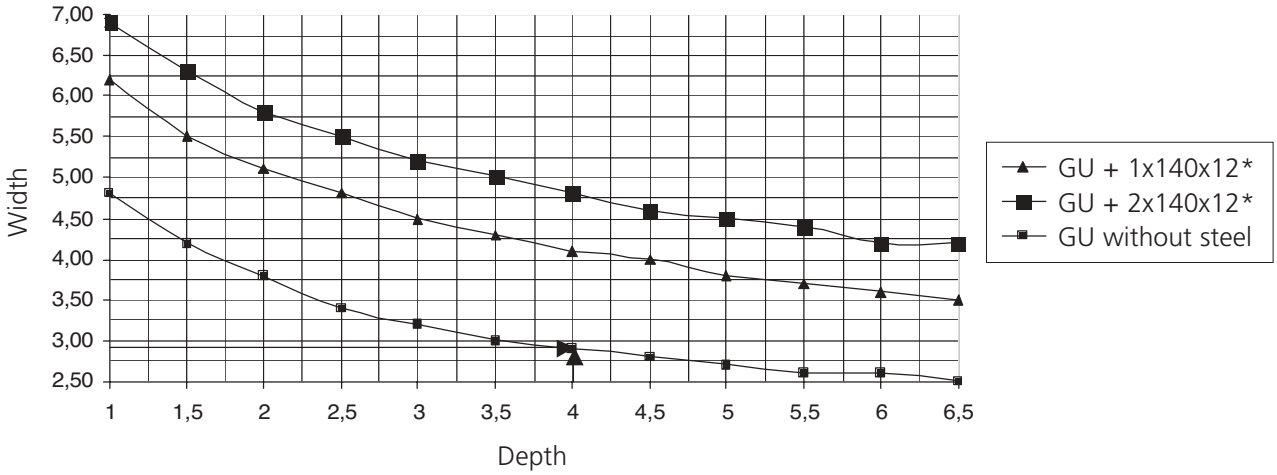
1. Starting data:

Snow load:	1250 N/m²	acc. to DIN 1055 Part 5	Min distance between centre lines:	70	cm
Wind load:	500 N/m²	acc. to DIN 1055 Part 4 and 5; up to 8m elevation	Max. weight RS:	170	N/m
Glass load:	250 N/m²	Equivalent to 10 mm glass	Max. GU bow f:	L/200	mm
Roof pitch:	5 to 45 degrees				

2. Table:

Depth in m / GU Type	max. width in m											
	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
GU without steel	4.80	4.20	3.80	3.40	3.20	3.00	2.90	2.80	2.70	2.60	2.60	2.50
GU + 1x140x12*	6.20	5.50	5.10	4.80	4.50	4.30	4.10	4.00	3.80	3.70	3.60	3.50
GU + 2x140x12*	6.90	6.30	5.80	5.50	5.20	5.00	4.80	4.60	4.50	4.40	4.20	4.20

3. Diagram:



Legend:
RS = Roof support
GU = Gutter

*on request and only possible if certain conditions are satisfied

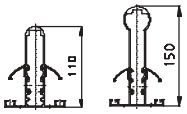
Last updated: 01.04.2004

WeiTop Terrazza

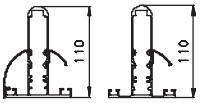
Information on
Roof Support Selection

1. General Comments:
The values shown in the tables and diagrams are guidelines for calculating the roof supports to be used. These are applied in the pre-calculation and calculation during the planning stage. The values given are only valid under the stated conditions. If there are different distances between centre lines, the minimum information required is the greatest distance between the centre lines of the corresponding roof support (RS) and the side roof support (SRS) or wall roof support (WRS). This can then be applied to the other roof supports.
The roof support length L must be converted to the corresponding depth using the figure for the roof pitch (see product folder).
For all calculations, it should be taken into account that the roof may not exceed an elevation height of more than 8 m. Stronger wind loads occur if greater elevation heights apply and such loads need to be taken into account.
Heavier snow loads, longer roof supports or other distances between centre lines in other conditions available on request.

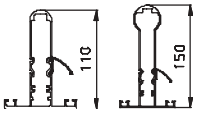
2. Legend:
GU
Roof support



SRS
Side roof support



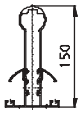
WRS
Wall roof support



3. Weights:
The weight of the roof support sections, including any reinforcements that may be added, is given below. Parts attached to the roof support have not been included in the weight. Views of the various roof supports can be found in the product folder.

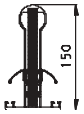
RS 110
without steel
2.9 kg/m

RS 150
without steel
3.4 kg/m



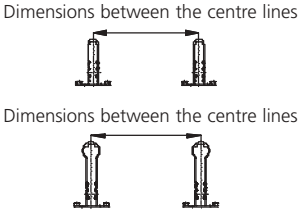
RS 110
with steel
12.3 kg/m

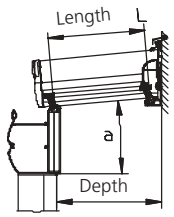
RS 150
with steel
16.5 kg/m

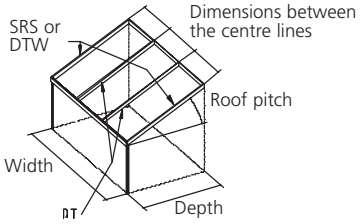


Please note that, depending on the type and length, the roof support may weigh up to 115 kg. Please ensure that you have a suitable workforce or lifting gear available at the place of installation.

4. Dimensions:
The figures below show the dimensions used in the tables and diagrams below.







5. Reading values from the diagrams and tables:
The diagrams and tables found on the following pages contain the maximum possible roof support length L for a given distance between centre lines and a given snow load. You can also determine whether steel reinforcement is required in the roof supports.
Example: Assuming you wanted to determine the roof supports to be used for a roof support length of 4.75 m for a snow load of 1250 N/m^2 and a distance of 0.9 m between the centre lines:

- Determining the standard roof supports (RS) in the centre of the roof
  1. Find the corresponding table(s) -> RS 110, 125 kg and RS 150, 125 kg.
  2. Find the corresponding distance between centre lines in the row at the top of the table and move downwards until you come to the corresponding roof support length L.
  3. If the abbreviation “V1” is shown in the field, the roof support can be used without the addition of any steel; f “V2” is given, steel must be used, and if “Not possible” is listed, the roof support may not be used.
  4. An RS 150 with steel may be used; an RS 110 is not possible here.
- Determining the side roof supports (SRS) or wall roof supports (DTW) on the side of the roof
  1. Find the corresponding table(s) -> SRS 110, 125 kg and SRS 150, 125 kg.
  2. Repeat steps 2 and 3 above.
  3. Both the RS 150 without steel and the RS 110 with steel may be used.

Since the use of different roof support types is not permitted on pent roofs, an RS 150 without steel would be used on the outside and a roof support with steel used in the middle.
Below are other examples of values which can also be derived from the diagrams and tables:

Known	Needed
RS type, RS length L, snow load	Distance between centre lines
RS type, distance between centre lines, snow load	RS length L
RS length L, distance between centre lines, snow load	RS type

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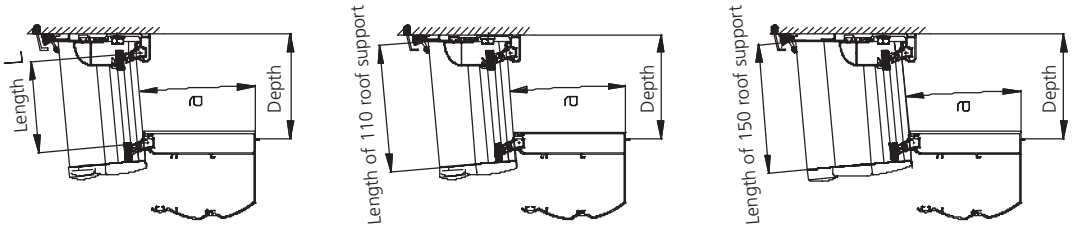
Table – Roof Support
Converting depth into roof support length



Terrazza S and L, length of bottom roof support

Roof pitch a in °	Depth in m														
	2	2.5	3	3.25	3.5	3.75	4	4.25	4.5	4.75	5	5.25	5.5	5.75	6
0	198	248	298	323	348	373	398	423	448	473	498	523	548	573	598
5	199	249	299	324	349	374	400	425	450	475	500	525	550	575	600
10	201	252	303	328	353	379	404	430	455	480	506	531	556	582	607
15	205	257	309	334	360	386	412	438	464	490	516	541	567	593	619
20	211	264	317	344	370	397	424	450	477	503	530	557	583	610	636
25	218	274	329	356	384	412	439	467	494	522	549	577	605	632	660
30	229	286	344	373	402	431	460	488	517	546	575	604	633		
35	242	303	364	394	425	455	486	516	547	577	608	638	669		
40	258	324	389	422	454	487	520	552	585	617	650				
45	280	351	421	457	492	528	563	598	634	669	704				

Terrazza S, length of top 110 roof support

Roof pitch a in °	Depth in m														
	2	2.5	3	3.25	3.5	3.75	4	4.25	4.5	4.75	5	5.25	5.5	5.75	6
0	201	251	301	326	351	376	401	426	451	476	501	526	551	576	601
5	202	253	303	328	353	378	403	428	453	478	504	529	554	579	604
10	206	257	307	333	358	383	409	434	460	485	510	536	561	587	612
15	211	263	314	340	366	392	418	444	470	495	521	547	573	599	625
20	218	271	324	351	377	404	431	457	484	510	537	564	590	617	643
25	227	282	337	365	392	420	447	475	503	530	558	585	613	641	668
30	238	296	354	383	412	440	469	498	527	556	585	614	642		
35	253	314	375	406	436	467	497	528	558	589	619	650	680		
40	272	337	402	435	467	500	533	565	598	631	663				
45	295	366	437	472	507	543	578	613	649	684					

Terrazza L, length of top 150 roof support

Roof pitch a in °	Depth in m														
	2	2.5	3	3.25	3.5	3.75	4	4.25	4.5	4.75	5	5.25	5.5	5.75	6
0	201	251	301	326	351	376	401	426	451	476	501	526	551	576	601
5	203	253	303	328	353	378	403	429	454	479	504	529	554	579	604
10	206	257	308	333	359	384	410	435	460	486	511	536	562	587	613
15	212	264	315	341	367	393	419	445	471	497	522	548	574	600	626
20	219	272	326	352	379	405	432	459	485	512	538	565	592	618	645
25	229	284	339	367	394	422	449	477	504	532	560	587	615	642	670
30	241	298	356	385	414	443	472	500	529	558	587	616	645		
35	256	317	378	408	439	469	500	530	561	592	622	653	683		
40	275	340	405	438	471	503	536	569	601	634	667				
45	299	370	441	476	511	547	582	617	653	688					

Last updated: 01.04.2004

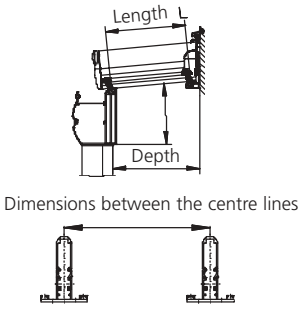
Table – Roof Support 110
Snow load 750 N/m²

Snow load zone:	1	Acc. to DIN 1055
Elevation above sea level:	Up to 500 m	
Snow load:	0.75 kN/m²	
Glass:	10 mm	
Weight of glass:	0.25 kN/m²	Max. 10 mm glass; 2.5 kg per 1 mm glass thickness
Max. permissible bow:	l/200	
Max. permissible roof pitch:	5 – 45 degrees	

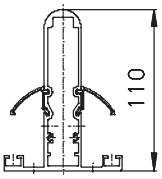
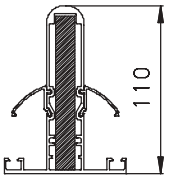
The actual roof support length L and the dimension between the centre lines must be known in order to calculate the roof support.

Support length in cm**	Dimensions between centre lines in cm*			
	70	80	90	100
225	V1	V1	V1	V1
250	V1	V1	V1	V1
275	V1	V1	V1	V1
300	V1	V1	V1	V1
325	V1	V1	V2	V2
350	V1	V2	V2	V2
375	V2	V2	V2	V2
400	V2	V2	V2	V2
425	V2	V2	V2	V2
450	V2	V2	V2	V2
475	V2	V2	Not possible	Not possible
500	V2	Not possible	Not possible	Not possible
525	Not possible	Not possible	Not possible	Not possible
550	Not possible	Not possible	Not possible	Not possible
575	Not possible	Not possible	Not possible	Not possible
600	Not possible	Not possible	Not possible	Not possible
625	Not possible	Not possible	Not possible	Not possible
650	Not possible	Not possible	Not possible	Not possible
Maximum value V1 in cm	351	336	324	313
Maximum value V2 in cm	504	485	468	453

* Centre of roof support to centre of roof support
** Equivalent to the true lower roof support length L (centre of gutter to centre of wall connection)



Dimensions between the centre lines

V1	V2
	
Roof support 110 Without steel	Roof support 110 With steel

Last updated: 01.04.2004

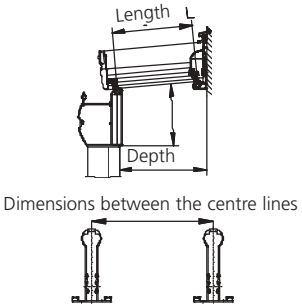
Table – Roof Support 150
Snow load 750 N/m²

Snow load zone:	1	Acc. to DIN 1055
Elevation above sea level:	Up to 500 m	
Snow load:	0.75 kN/m²	
Glass:	10 mm	
Weight of glass:	0.25 kN/m²	Max. 10 mm glass; 2.5 kg per 1 mm glass thickness
Max. permissible bow:	l/200	
Max. permissible roof pitch:	5 – 45 degrees	

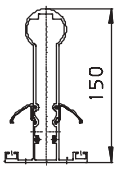
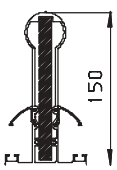
The actual roof support length L and the dimension between the centre lines must be known in order to calculate the roof support.

Support length L in cm**	Dimensions between centre lines in cm*			
	70	80	90	100
225	V1	V1	V1	V1
250	V1	V1	V1	V1
275	V1	V1	V1	V1
300	V1	V1	V1	V1
325	V1	V1	V1	V1
350	V1	V1	V1	V1
375	V1	V1	V1	V1
400	V1	V1	V1	V1
425	V1	V1	V1	V2
450	V1	V1	V2	V2
475	V2	V2	V2	V2
500	V2	V2	V2	V2
525	V2	V2	V2	V2
550	V2	V2	V2	V2
575	V2	V2	V2	V2
600	V2	V2	V2	V2
625	V2	V2	V2	Not possible
650	V2	V2	Not possible	Not possible
675	V2	Not possible	Not possible	Not possible
700	Not possible	Not possible	Not possible	Not possible
Maximum value V1 in cm	469	450	433	418
Maximum value V2 in cm	686	660	639	619

* Centre of roof support to centre of roof support
** Equivalent to the true lower roof support length L (centre of gutter to centre of wall connection)



Dimensions between the centre lines

V1	V2
	
Roof support 150 Without steel	Roof support 150 With steel

Last updated: 01.04.2004

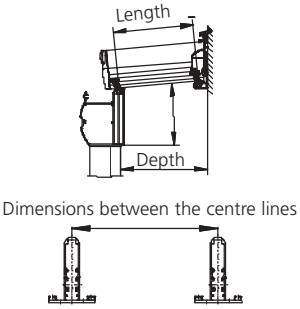
Table – Roof Support 110
Snow load 1250 N/m²

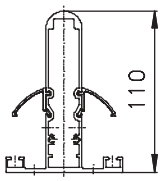
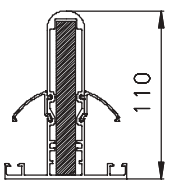
Snow load zone:	1	Acc. to DIN 1055
Elevation above sea level:	Up to 800 m	
Snow load:	1.25 kN/m²	
Glass:	10 mm	
Weight of glass:	0.25 kN/m²	Max. 10 mm glass; 2.5 kg per 1 mm glass thickness
Max. permissible bow:	l/200	
Max. permissible roof pitch:	5 – 45 degrees	

The actual roof support length L and the dimension between the centre lines must be known in order to calculate the roof support.

Support length L in cm**	Dimensions between centre lines in cm*			
	70	80	90	100
225	V1	V1	V1	V1
250	V1	V1	V1	V1
275	V1	V1	V1	V1
300	V1	V2	V2	V2
325	V2	V2	V2	V2
350	V2	V2	V2	V2
375	V2	V2	V2	V2
400	V2	V2	V2	V2
425	V2	V2	Not possible	Not possible
450	V2	Not possible	Not possible	Not possible
475	Not possible	Not possible	Not possible	Not possible
500	Not possible	Not possible	Not possible	Not possible
525	Not possible	Not possible	Not possible	Not possible
550	Not possible	Not possible	Not possible	Not possible
575	Not possible	Not possible	Not possible	Not possible
600	Not possible	Not possible	Not possible	Not possible
625	Not possible	Not possible	Not possible	Not possible
650	Not possible	Not possible	Not possible	Not possible
Maximum value V1 in cm	311	298	287	277
Maximum value V2 in cm	452	434	418	405

* Centre of roof support to centre of roof support
** Equivalent to the true lower roof support length L (centre of gutter to centre of wall connection)



V1	V2
	
Roof support 110 Without steel	Roof support 110 With steel

Last updated: 01.04.2004

WeiTop Terrazza L

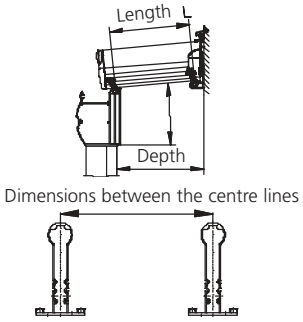
Table – Roof Support 150
Snow load 1250 N/m²

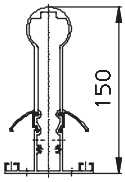
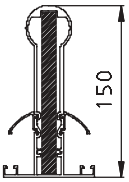
Snow load zone:	1	Acc. to DIN 1055
Elevation above sea level:	Up to 800 m	
Snow load:	1.25 kN/m²	
Glass:	10 mm	
Weight of glass:	0.25 kN/m²	Max. 10 mm glass; 2.5 kg per 1 mm glass thickness
Max. permissible bow:	l/200	
Max. permissible roof pitch:	5 – 45 degrees	

The actual roof support length L and the dimension between the centre lines must be known in order to calculate the roof support.

Support length L in cm**	Dimensions between centre lines in cm*			
	70	80	90	100
225	V1	V1	V1	V1
250	V1	V1	V1	V1
275	V1	V1	V1	V1
300	V1	V1	V1	V1
325	V1	V1	V1	V1
350	V1	V1	V1	V1
375	V1	V1	V1	V2
400	V1	V2	V2	V2
425	V2	V2	V2	V2
450	V2	V2	V2	V2
475	V2	V2	V2	V2
500	V2	V2	V2	V2
525	V2	V2	V2	V2
550	V2	V2	V2	V2
575	V2	V2	V2	V2
600	V2	Not possible	Not possible	Not possible
625	Not possible	Not possible	Not possible	Not possible
650	Not possible	Not possible	Not possible	Not possible
675	Not possible	Not possible	Not possible	Not possible
700	Not possible	Not possible	Not possible	Not possible
Maximum value V1 in cm	417	399	384	371
Maximum value V2 in cm	617	594	573	555

* Centre of roof support to centre of roof support
** Equivalent to the true lower roof support length L (centre of gutter to centre of wall connection)



V1	V2
	
Roof support 150 Without steel	Roof support 150 With steel

Last updated: 01.04.2004

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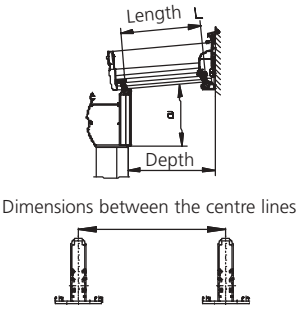
Table – Side Roof Support 110
or Wall Roof Support 110, snow load 750 N/m²

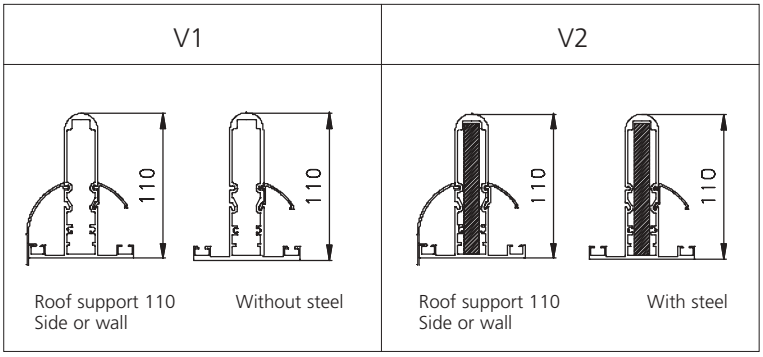
Snow load zone:	1	Acc. to DIN 1055
Elevation above sea level:	Up to 500 m	
Snow load:	0.75 kN/m²	
Glass:	10 mm	
Weight of glass:	0.25 kN/m²	Max. 10 mm glass; 2.5 kg per 1 mm glass thickness
Max. permissible bow:	l/200	
Max. permissible roof pitch	5 – 45 degrees	

The actual roof support length L and the dimension between the centre lines must be known in order to calculate the roof support

Support length L in cm**	Dimensions between centre lines in cm*			
	70	80	90	100
225	V1	V1	V1	V1
250	V1	V1	V1	V1
275	V1	V1	V1	V1
300	V1	V1	V1	V1
325	V1	V1	V1	V1
350	V1	V1	V1	V1
375	V1	V1	V1	V1
400	V1	V1	V1	V2
425	V1	V2	V2	V2
450	V2	V2	V2	V2
475	V2	V2	V2	V2
500	V2	V2	V2	V2
525	V2	V2	V2	V2
550	V2	V2	V2	V2
575	V2	V2	Not possible	Not possible
600	V2	Not possible	Not possible	Not possible
625	Not possible	Not possible	Not possible	Not possible
650	Not possible	Not possible	Not possible	Not possible
Maximum value V1 in cm	438	420	405	391
Maximum value V2 in cm	610	589	570	554

* Centre of roof support to centre of roof support
** Equivalent to the true lower roof support length L (centre of gutter to centre of wall connection)





Last updated: 01.04.2004

Table – Side Roof Support 150
or Wall Roof Support 150, snow load 750 N/m²

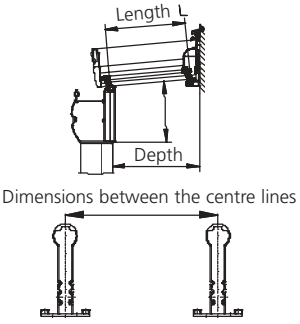
Snow load zone:	1	Acc. to DIN 1055
Elevation above sea level:	Up to 500 m	
Snow load:	0.75 kN/m²	
Glass:	10 mm	
Weight of glass:	0.25 kN/m²	Max. 10 mm glass; 2.5 kg per 1 mm glass thickness
Max. permissible bow:	l/200	
Max. permissible roof pitch	5 – 45 degrees	

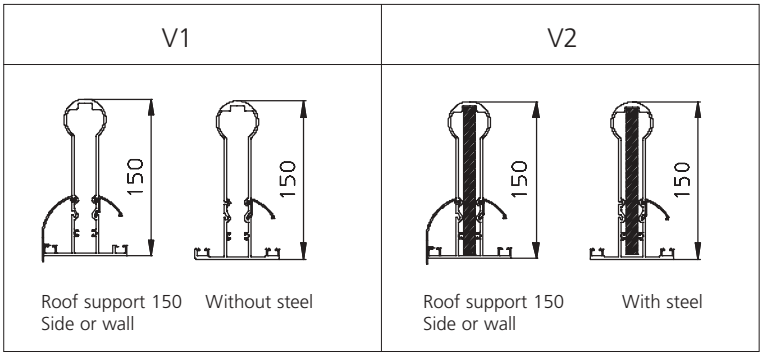
The actual roof support length L and the dimension between the centre lines must be known in order to calculate the roof support

Support length L in cm**	Dimensions between centre lines in cm*			
	70	80	90	100
225	V1	V1	V1	V1
250	V1	V1	V1	V1
275	V1	V1	V1	V1
300	V1	V1	V1	V1
325	V1	V1	V1	V1
350	V1	V1	V1	V1
375	V1	V1	V1	V1
400	V1	V1	V1	V1
425	V1	V1	V1	V1
450	V1	V1	V1	V1
475	V1	V1	V1	V1
500	V1	V1	V1	V1
525	V1	V1	V1	V2
550	V1	V1	V2	V2
575	V1	V2	V2	V2
600	V2	V2	V2	V2
625	V2	V2	V2	V2
650	V2	V2	V2	V2
675	V2	V2	V2	V2
700	V2	V2	V2	V2
Maximum value V1 in cm	584	561	540	523
Maximum value V2 in cm	820	794	771	750

* Centre of roof support to centre of roof support

** Equivalent to the true lower roof support length L (centre of gutter to centre of wall connection)





Last updated: 01.04.2004

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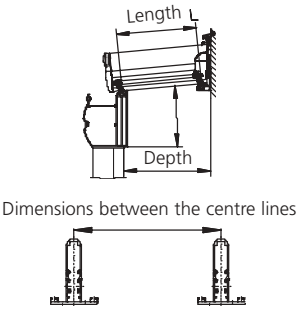
Table – Side Roof Support 110
or Wall Roof Support 110, snow load 1250 N/m²

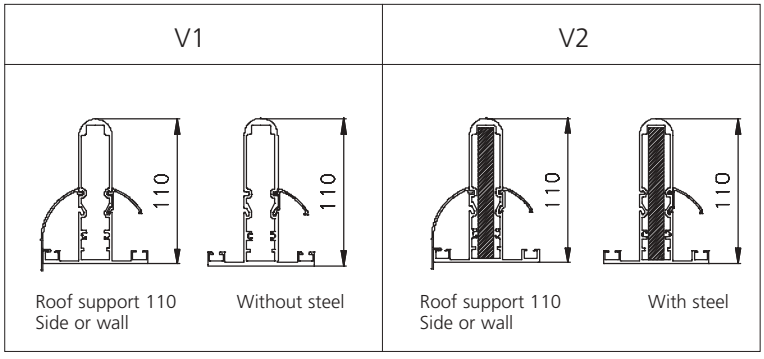
Snow load zone:	1	Acc. to DIN 1055
Elevation above sea level:	Up to 800 m	
Snow load:	1.25 kN/m²	
Glass:	10 mm	
Weight of glass:	0.25 kN/m²	Max. 10 mm glass; 2.5 kg per 1 mm glass thickness
Max. permissible bow:	l/200	
Max. permissible roof pitch	5 – 45 degrees	

The actual roof support length L and the dimension between the centre lines must be known in order to calculate the roof support

Support length L in cm**	Dimensions between centre lines in cm*			
	70	80	90	100
225	V1	V1	V1	V1
250	V1	V1	V1	V1
275	V1	V1	V1	V1
300	V1	V1	V1	V1
325	V1	V1	V1	V1
350	V1	V1	V1	V2
375	V1	V2	V2	V2
400	V2	V2	V2	V2
425	V2	V2	V2	V2
450	V2	V2	V2	V2
475	V2	V2	V2	V2
500	V2	V2	V2	Not possible
525	V2	V2	Not possible	Not possible
550	V2	Not possible	Not possible	Not possible
575	Not possible	Not possible	Not possible	Not possible
600	Not possible	Not possible	Not possible	Not possible
625	Not possible	Not possible	Not possible	Not possible
650	Not possible	Not possible	Not possible	Not possible
Maximum value V1 in cm	390	374	360	348
Maximum value V2 in cm	553	532	515	499

* Centre of roof support to centre of roof support
** Equivalent to the true lower roof support length L (centre of gutter to centre of wall connection)





Last updated: 01.04.2004

Table – Side Roof Support 150
or Wall Roof Support 150, snow load 1250 N/m²

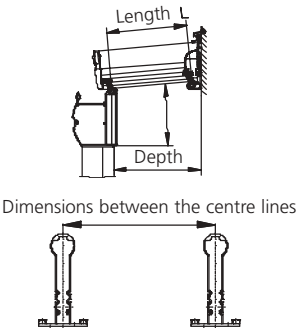
Snow load zone:	1	Acc. to DIN 1055
Elevation above sea level:	Up to 800 m	
Snow load:	1.25 kN/m²	
Glass:	10 mm	
Weight of glass:	0.25 kN/m²	Max. 10 mm glass; 2.5 kg per 1 mm glass thickness
Max. permissible bow:	l/200	
Max. permissible roof pitch	5 – 45 degrees	

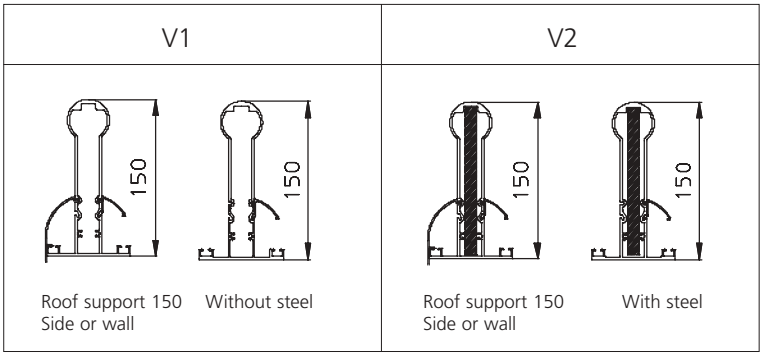
The actual roof support length L and the dimension between the centre lines must be known in order to calculate the roof support

Support length L in cm**	Dimensions between centre lines in cm*			
	70	80	90	100
225	V1	V1	V1	V1
250	V1	V1	V1	V1
275	V1	V1	V1	V1
300	V1	V1	V1	V1
325	V1	V1	V1	V1
350	V1	V1	V1	V1
375	V1	V1	V1	V1
400	V1	V1	V1	V1
425	V1	V1	V1	V1
450	V1	V1	V1	V1
475	V1	V1	V1	V2
500	V1	V2	V2	V2
525	V2	V2	V2	V2
550	V2	V2	V2	V2
575	V2	V2	V2	V2
600	V2	V2	V2	V2
625	V2	V2	V2	V2
650	V2	V2	V2	V2
675	V2	V2	V2	V2
700	V2	V2	V2	Not possible
Maximum value V1 in cm	521	499	481	465
Maximum value V2 in cm	748	722	700	680

* Centre of roof support to centre of roof support

** Equivalent to the true lower roof support length L (centre of gutter to centre of wall connection)





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The following pages contain information on various section cross-sections relating to:
- the moments of inertia in X- and Y-direction in cm^4
- the resisting torque in X- and Y-direction in cm^3
- as well as the weight in kg/m

All aluminium sections are composed of the alloy AlMgSi0.5 in F22 quality.
The steel sections are made of galvanised St37.

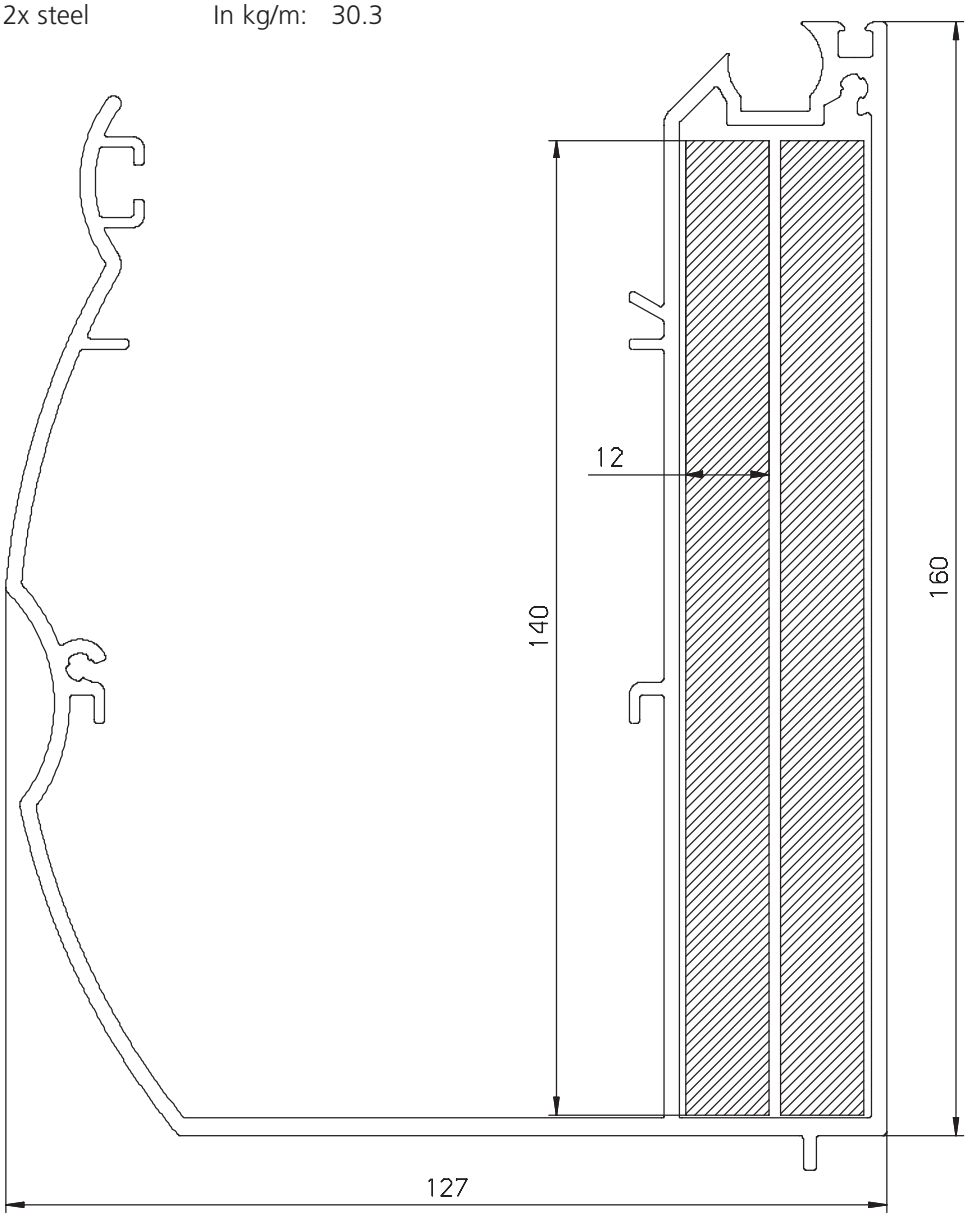
Should you require further details, e.g. the position of the centre of mass, or anything else, please contact weinor.

Last updated: 01.04.2004

Values for Calculating Statics
Gutter

Gutter with 1x, 2x steel or without steel:

Ix gutter	In cm^4:	420
Iy gutter	In cm^4:	322
Ix 1 steel section 140 x 12	In cm^4:	274
Iy 1 steel section 140 x 12	In cm^4:	2
Wx gutter	In cm^3:	47.2
Wy gutter	In cm^3:	41.8
Wx 1 steel section 140 x 12	In cm^3:	39.1
Wy 1 steel section 140 x 12	In cm^3:	3.3
Weight of gutter	In kg/m:	4.1
Weight of 1 steel section 140 x 12	In kg/m:	13.1
Weight of gutter + 1x steel	In kg/m:	17.2
Weight of gutter + 2x steel	In kg/m:	30.3



– galvanised steel
– steel on front sides rust protected

Last updated: 01.04.2004

WeiTop Terrazza

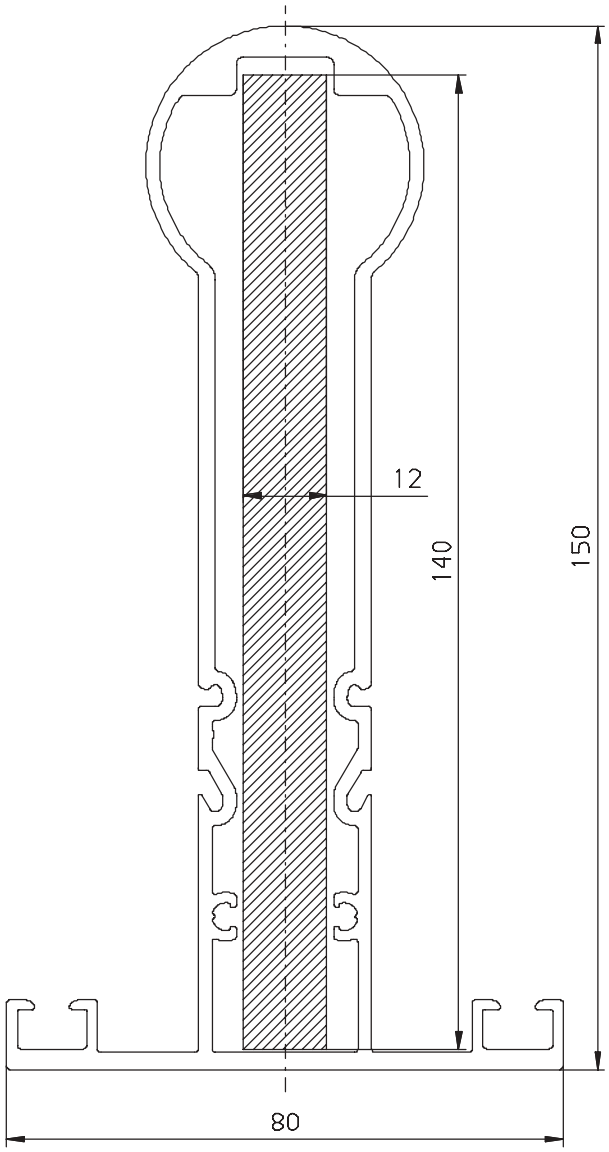
Values for Calculating Statics
Roof support

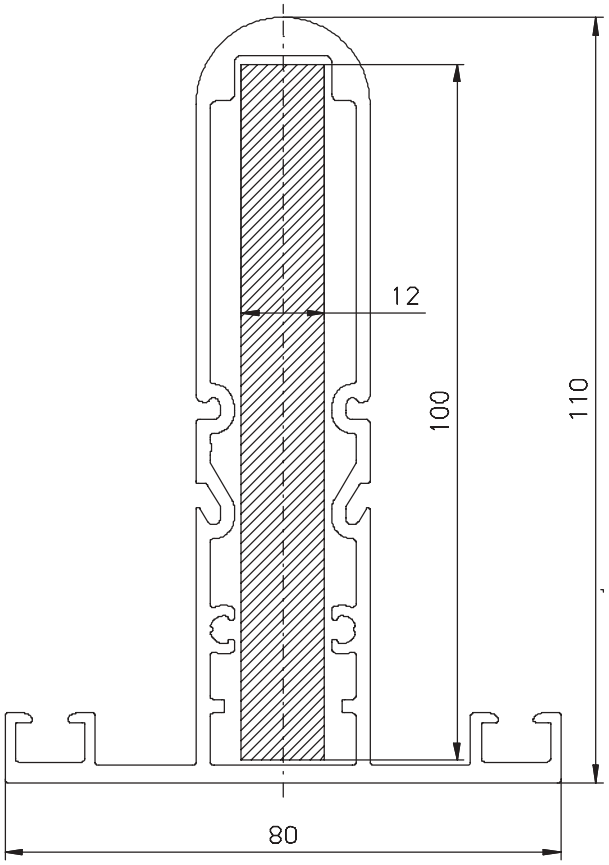
Roof support 150:

Ix roof support 150	In cm^4:	310
Iy roof support 150	In cm^4:	29
Ix steel section 140 x 12	In cm^4:	274
Iy steel section 140 x 12	In cm^4:	2
Wx roof support 150	In cm^3:	36.5
Wy roof support 150	In cm^3:	7.4
Wx steel section 140 x 12	In cm^3:	39.1
Wy steel section 140 x 12	In cm^3:	3.3
Weight of roof support 150	In kg/m:	3.0
Weight of steel section 140 x 12	In kg/m:	13.1

Roof support 110:

Ix roof support 110	In cm^4:	130
Iy roof support 110	In cm^4:	25
Ix steel section 100 x 12	In cm^4:	100
Iy steel section 100 x 12	In cm^4:	1
Wx roof support 110	In cm^3:	19.5
Wy roof support 110	In cm^3:	6.2
Wx steel section 100 x 12	In cm^3:	20.0
Wy steel section 100 x 12	In cm^3:	2.4
Weight of roof support 110	In kg/m:	2.5
Weight of steel section 100 x 12	In kg/m:	9.4





– galvanised steel
– steel on front sides rust protected

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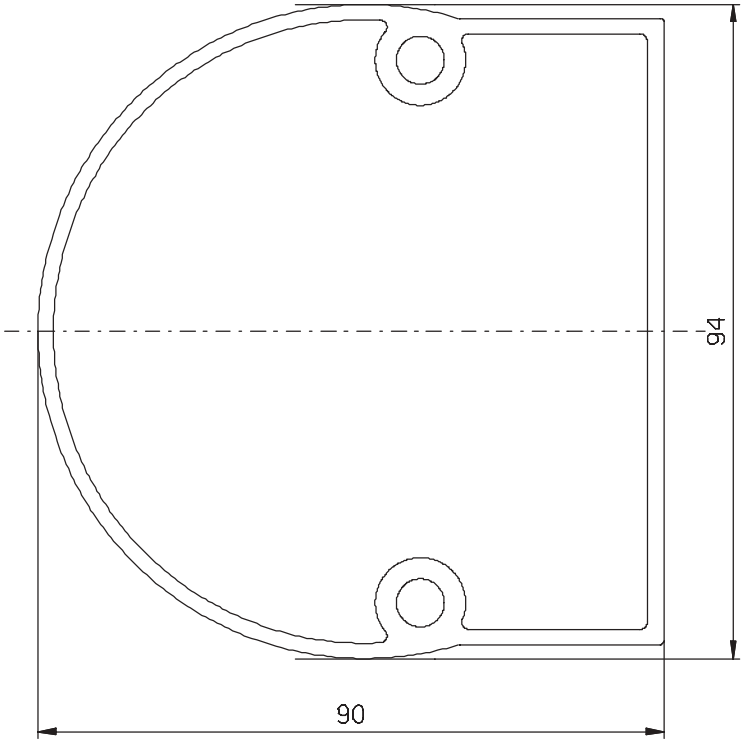
Values for Calculating Statics
Posts

Posts:

Ix post In cm^4: 109.6
Iy post In cm^4: 79.8

Wx post In cm^3: 23.3
Wy post In cm^3: 15.2

Weight of post In kg/m: 2.4

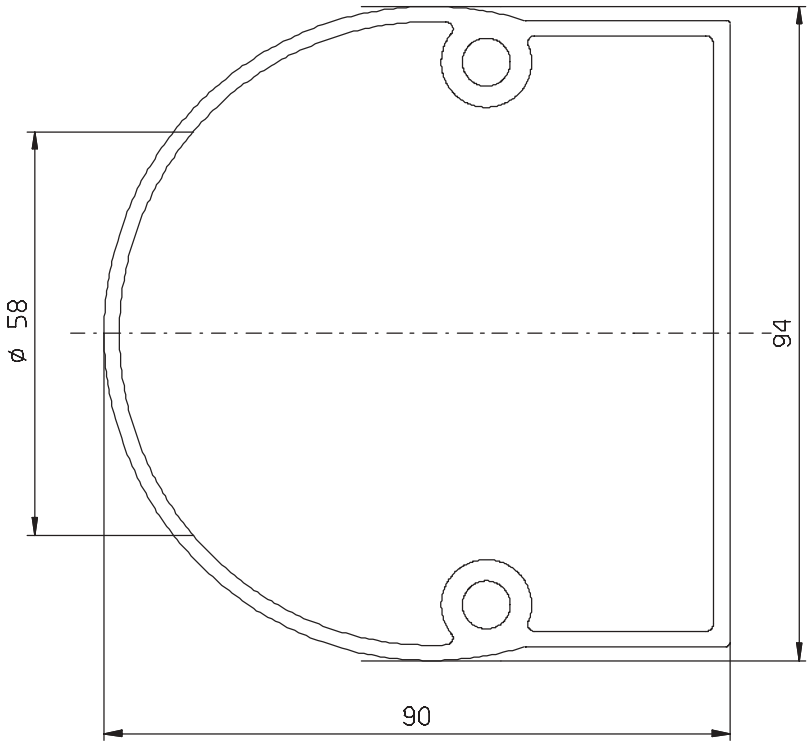


Posts: (with drain):

Ix post In cm^4: 105.4
Iy post In cm^4: 42.3

Wx post In cm^3: 22.3
Wy post In cm^3: 8.3

Weight of post In kg/m: 2.4



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Information on
Post Selection

1. General Comments:
The values shown in the tables are guidelines for calculating the number of posts to be used. They are applied in the pre-calculation and calculation during the planning stage. The values given are only valid under the stated conditions. The dimensions and fitting of the posts, post support brackets, and the use of corner joints, stays, etc. must be checked and requested for each individual job.
For all calculations, it is assumed that the posts are located in their standard position, i.e. at the outermost points.
If more than two posts are used, they must be divided symmetrically.
Heavier snow loads or larger roof widths available on request and subject to other fundamental conditions.
The values shown in the table result from the diagrams in Section 4.1.
For snow loads heavier than 750 N/m^2, distances of 1 m between the centre lines are not always possible on greater depths. In certain cases, only a distance of 0.7 m between the centre lines is possible.
For snow loads above 750 N/m^2, always check to see if the roof covering is permissible for the envisaged standard distances between the centre lines.
The tables shown do not indicate whether large depths and obtuse roof pitches are feasible.
Special stipulations apply every time steel is used in the gutter, e.g.:
- Roof must be located between two walls
- Posts must be restrained on-site
- Corner joints or stays are required, etc.

For snow loads over 1250 N/m^2, the maximum length of the post must also be taken into account on large depths.
The greater the snow load, the smaller the maximum depths and spacing between the posts.

2. Legend:
GU = Gutter

3. Possible gutters:
The weight of the gutter section, including any reinforcements that may be added, is given below. Parts attached to the gutter have not been included in the weight. Views of the various gutter can be found in the product folder.

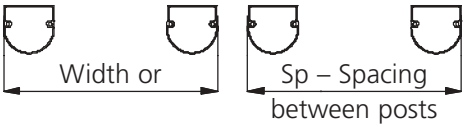
GU without steel
4.1 kg/m

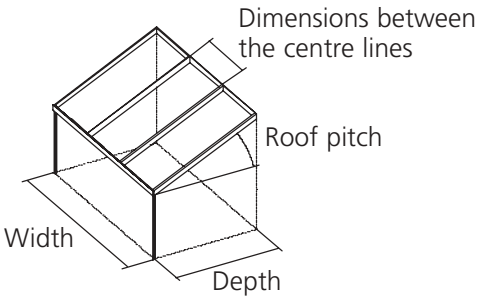
GU with steel
1x 140 x 12
17.2 kg/m

GU with steel
2x 140 x 12
30.3 kg/m

Please note that, depending on the type and length, the gutter may weigh up to 210 kg.
Please ensure that you have a suitable workforce or lifting gear available at the place of installation.

4. Dimensions:
The figures below show the dimensions used in the tables below.





5. Reading values from the diagrams and tables:
The tables found on the following pages relate to a certain depth and width, and the required number of posts.
You can therefore read off the required number of posts that match the width, depth and guttering used.
Example: for a depth of 4 m is given and using a gutter (GU) without steel, the task is to calculate the maximum width when using two posts and assuming a snow load of 750 N/m^2.
- Determining the values using the table
  1. Find the corresponding page (GU without steel) and choose the corresponding table (snow load 750 N/m^2).
  2. Find the required depth (4 m) in the first column.
  3. Move along the corresponding row to the right until you find the matching number of posts (2).
  4. Now move up the corresponding column and read off the largest possible depth (3.5 m).

More exact values can be obtained from the tables and diagrams in Section 4.1.

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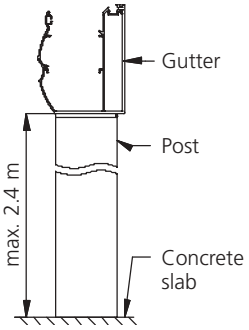
WeiTop Terrazza

Number of posts for gutter without steel

- Standard position of posts: outermost points; centre posts divided symmetrically
- Maximum length of post: 2.4 m

Snow load 750 N/m² — 2 posts — 3 posts

Depth in mm	Width in mm 2-section 2000	3-section 2500	3-section 3000	4-section 3500	4-section 4000	5-section 4500	5-section 5000	6-section 5500	6-section 6000	Spacing betw. posts, Sp. max. in mm
1000	2	2	2	2	2	2	2	3	3	5300
1500	2	2	2	2	2	2	2	3	3	5000
2000	2	2	2	2	2	2	3	3	3	4500
2500	2	2	2	2	2	3	3	3	3	4000
3000	2	2	2	2	3	3	3	3	3	3700
3500	2	2	2	2	3	3	3	3	3	3600
4000	2	2	2	2	3	3	3	3	3	3500
4500	2	2	2	3	3	3	3	3	3	3300
5000	2	2	2	3	3	3	3	3	3	3200
5500	2	2	2	3	3	3	3	3	3	3100
6000	2	2	2	3	3	3	3	3	3	3050



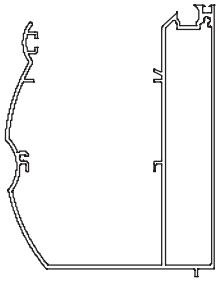
Snow load 750 N/m² — 3 posts — 4 posts — 5 posts

Depth in mm	Width in mm 7-section 6500	7-section 7000	8-section 7500	8-section 8000	9-section 8500	9-section 9000	10-section 9500	10-section 10000	11-section 10500	Spacing betw. posts, Sp. max. in mm
1000	3	3	3	3	3	3	3	3	4	5300
1500	3	3	3	3	3	3	3	3	4	5000
2000	3	3	3	3	3	3	3	4	4	4500
2500	3	3	3	3	4	4	4	4	4	4000
3000	3	3	4	4	4	4	4	4	4	3700
3500	3	3	4	4	4	4	4	4	4	3600
4000	3	3	4	4	4	4	4	4	4	3500
4500	4	4	4	4	4	4	4	4	5	3300
5000	4	4	4	4	4	4	4	5	5	3200
5500	4	4	4	4	4	4	5	5	5	3100
6000	4	4	4	4	4	4	5	5	5	3050

Snow load 1250 N/m² — 2 posts — 3 posts — 4 posts

Depth in mm	Width in mm 2000	2500	3000	3500	4000	4500	5000	5500	6000	Spacing betw. posts, Sp. max. in mm
1000	2	2	2	2	2	2	3	3	3	4800
1500	2	2	2	2	2	3	3	3	3	4200
2000	2	2	2	2	3	3	3	3	3	3800
2500	2	2	2	3	3	3	3	3	3	3400
3000	2	2	2	3	3	3	3	3	3	3200
3500	2	2	2	3	3	3	3	3	4	3000
4000	2	2	3	3	3	3	3	3	4	2900
4500	2	2	3	3	3	3	3	3	4	2800
5000	2	2	3	3	3	3	3	4	4	2700
5500	2	2	3	3	3	3	3	4	4	2600
6000	2	2	3	3	3	3	3	4	4	2600

No steel in gutter



Snow load 1250 N/m² — 3 posts — 4 posts — 5 posts — 6 posts

Depth in mm	Width in mm 6500	7000	7500	8000	8500	9000	9500	10000	10500	Spacing betw. posts, Sp. max. in mm
1000	3	3	3	3	3	3	3	4	4	4800
1500	3	3	3	3	4	4	4	4	4	4200
2000	3	3	3	4	4	4	4	4	4	3800
2500	3	4	4	4	4	4	4	4	5	3400
3000	4	4	4	4	4	4	5	5	5	3200
3500	4	4	4	4	4	5	5	5	5	3000
4000	4	3	4	4	4	5	5	5	5	2900
4500	4	4	4	4	5	5	5	5	5	2800
5000	4	4	4	5	5	5	5	5	5	2700
5500	4	4	4	5	5	5	5	5	6	2600
6000	4	4	4	5	5	5	5	5	6	2600

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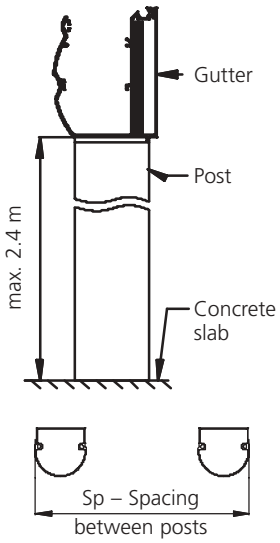
WeiTop Terrazza

Number of posts for
gutter with 1x steel 140 x 12

- Standard position of posts: outermost points; centre posts divided symmetrically
- Maximum length of post: 2.4 m

Snow load 75 kg/m² — 2 posts / 3 posts

Depth in mm	Width in mm 2-section 2000	3-section 2500	3-section 3000	4-section 3500	4-section 4000	5-section 4500	5-section 5000	6-section 5500	6-section 6000
1000	2	2	2	2	2	2	2	2	2
1500	2	2	2	2	2	2	2	2	2
2000	2	2	2	2	2	2	2	2	3
2500	2	2	2	2	2	2	2	3	3
3000	2	2	2	2	2	2	3	3	3
3500	2	2	2	2	2	2	3	3	3
4000	2	2	2	2	2	2	3	3	3
4500	2	2	2	2	2	3	3	3	3
5000	2	2	2	2	2	3	3	3	3
5500	2	2	2	2	2	3	3	3	3
6000	2	2	2	2	2	3	3	3	3

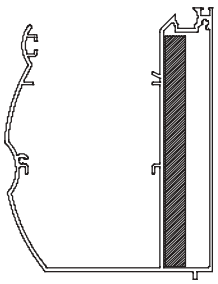


Snow load 75 kg/m² — 4 posts

Depth in mm	Width in mm 7-section 6500	7-section 7000	8-section 7500	8-section 8000	9-section 8500	9-section 9000	10-section 9500	10-section 10000	11-section 10500
1000	2	3	3	3	3	3	3	3	3
1500	3	3	3	3	3	3	3	3	3
2000	3	3	3	3	3	3	3	3	3
2500	3	3	3	3	3	3	3	3	4
3000	3	3	3	3	3	3	3	4	4
3500	3	3	3	3	3	3	4	4	4
4000	3	3	3	3	3	4	4	4	4
4500	3	3	3	3	3	4	4	4	4
5000	3	3	3	3	4	4	4	4	4
5500	3	3	3	3	4	4	4	4	4
6000	3	3	3	4	4	4	4	4	4

Snow load 125 kg/m² — 2 posts / 3 posts

Depth in mm	Width in mm 2000	2500	3000	3500	4000	4500	5000	5500	6000
1000	2	2	2	2	2	2	2	2	2
1500	2	2	2	2	2	2	2	2	3
2000	2	2	2	2	2	2	2	3	3
2500	2	2	2	2	2	2	3	3	3
3000	2	2	2	2	2	2	3	3	3
3500	2	2	2	2	2	3	3	3	3
4000	2	2	2	2	2	3	3	3	3
4500	2	2	2	2	2	3	3	3	3
5000	2	2	2	2	3	3	3	3	3
5500	2	2	2	2	3	3	3	3	3
6000	2	2	2	2	3	3	3	3	3



Snow load 125 kg/m² — 4 posts

Depth in mm	Width in mm 6500	7000	7500	8000	8500	9000	9500	10000	10500
1000	3	3	3	3	3	3	3	3	3
1500	3	3	3	3	3	3	3	3	3
2000	3	3	3	3	3	3	3	3	4
2500	3	3	3	3	3	3	3	4	4
3000	3	3	3	3	3	4	4	4	4
3500	3	3	3	3	3	4	4	4	4
4000	3	3	3	3	4	4	4	4	4
4500	3	3	3	4	4	4	4	4	4
5000	3	3	3	4	4	4	4	4	4
5500	3	3	4	4	4	4	4	4	4
6000	3	3	4	4	4	4	4	4	4

Last updated: 01.04.2004

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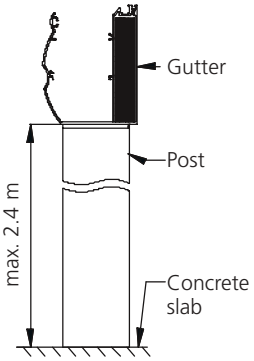
WeiTop Terrazza

Number of posts for
gutter with 2x steel 140 x 12

- Standard position of posts: outermost points; centre posts divided symmetrically
- Maximum length of post: 2.4 m

Snow load 75 kg/m² — 2 posts / 3 posts

Depth in mm	Width in mm 2-section 2000	3-section 2500	3-section 3000	4-section 3500	4-section 4000	5-section 4500	5-section 5000	6-section 5500	6-section 6000
1000	2	2	2	2	2	2	2	2	2
1500	2	2	2	2	2	2	2	2	2
2000	2	2	2	2	2	2	2	2	2
2500	2	2	2	2	2	2	2	2	3
3000	2	2	2	2	2	2	2	2	3
3500	2	2	2	2	2	2	2	3	3
4000	2	2	2	2	2	2	2	3	3
4500	2	2	2	2	2	2	2	3	3
5000	2	2	2	2	2	2	3	3	3
5500	2	2	2	2	2	2	3	3	3
6000	2	2	2	2	2	2	3	3	3



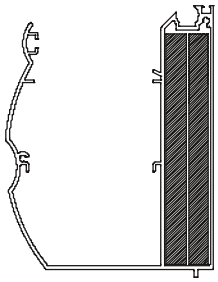
Snow load 75 kg/m² — 4 posts

Depth in mm	Width in mm 7-section 6500	7-section 7000	8-section 7500	8-section 8000	9-section 8500	9-section 9000	10-section 9500	10-section 10000	11-section 10500
1000	2	3	3	3	3	3	3	3	3
1500	2	3	3	3	3	3	3	3	3
2000	3	3	3	3	3	3	3	3	3
2500	3	3	3	3	3	3	3	3	3
3000	3	3	3	3	3	3	3	3	3
3500	3	3	3	3	3	3	3	3	3
4000	3	3	3	3	3	3	3	3	4
4500	3	3	3	3	3	3	3	4	4
5000	3	3	3	3	3	3	3	4	4
5500	3	3	3	3	3	3	4	4	4
6000	3	3	3	3	3	3	4	4	4

Snow load 125 kg/m² — 2 posts / 3 posts

Depth in mm	Width in mm 2000	2500	3000	3500	4000	4500	5000	5500	6000
1000	2	2	2	2	2	2	2	2	2
1500	2	2	2	2	2	2	2	2	2
2000	2	2	2	2	2	2	2	2	3
2500	2	2	2	2	2	2	2	2	3
3000	2	2	2	2	2	2	2	3	3
3500	2	2	2	2	2	2	2	3	3
4000	2	2	2	2	2	2	3	3	3
4500	2	2	2	2	2	2	3	3	3
5000	2	2	2	2	2	2	3	3	3
5500	2	2	2	2	2	3	3	3	3
6000	2	2	2	2	2	3	3	3	3

No steel in gutter



Snow load 125 kg/m² — 4 posts

Depth in mm	Width in mm 6500	7000	7500	8000	8500	9000	9500	10000	10500
1000	2	3	3	3	3	3	3	3	3
1500	3	3	3	3	3	3	3	3	3
2000	3	3	3	3	3	3	3	3	3
2500	3	3	3	3	3	3	3	3	3
3000	3	3	3	3	3	3	3	3	4
3500	3	3	3	3	3	3	3	4	4
4000	3	3	3	3	3	3	3	4	4
4500	3	3	3	3	3	3	4	4	4
5000	3	3	3	3	3	4	4	4	4
5500	3	3	3	3	3	4	4	4	4
6000	3	3	3	3	4	4	4	4	4

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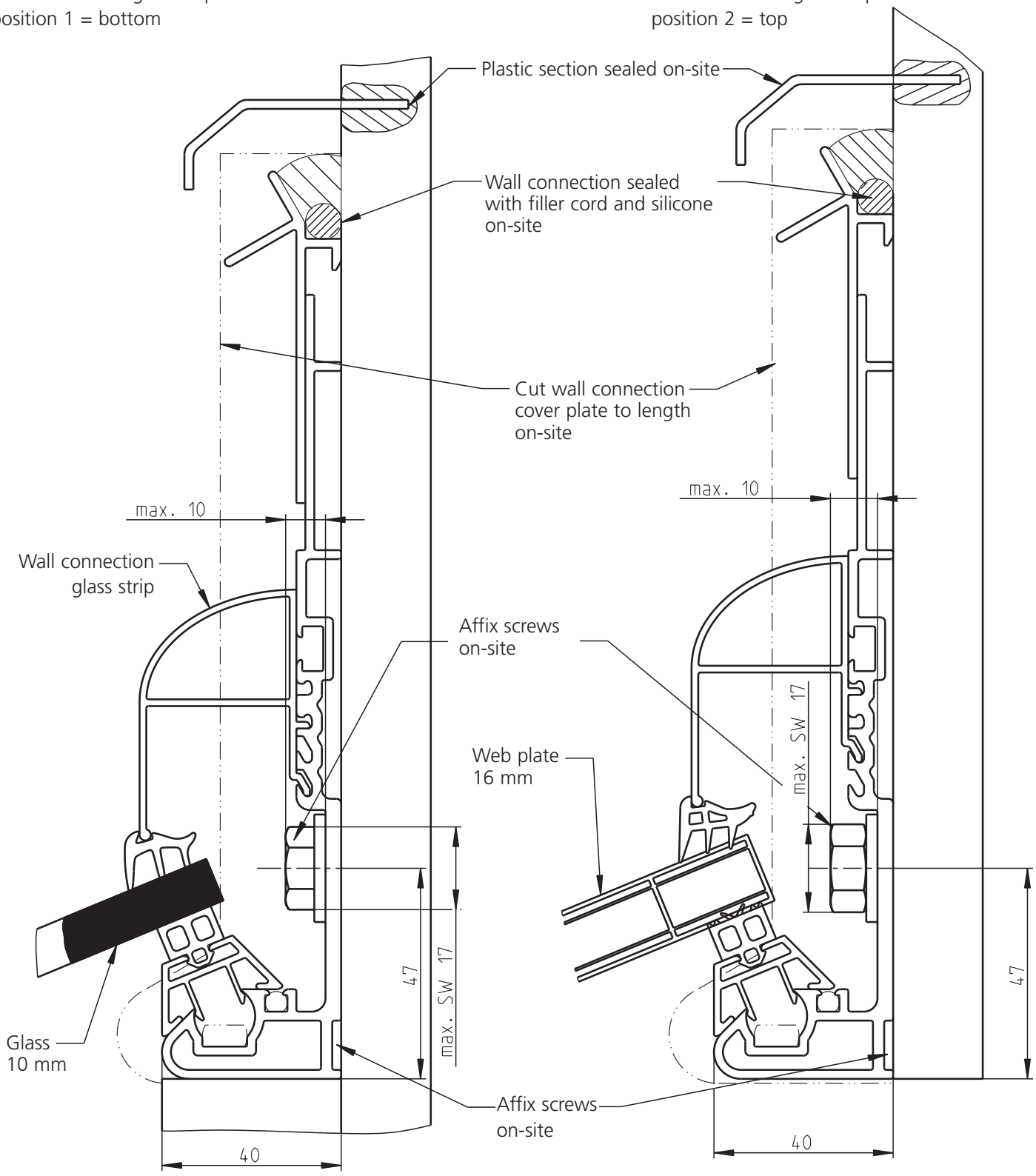
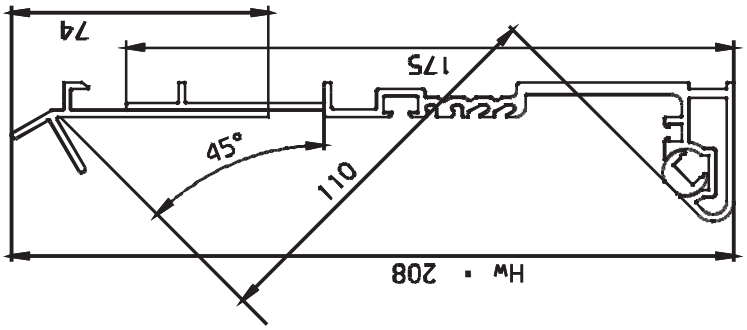
Wall connection glass strip
position 1 = bottom

Wall connection glass strip
position 2 = top

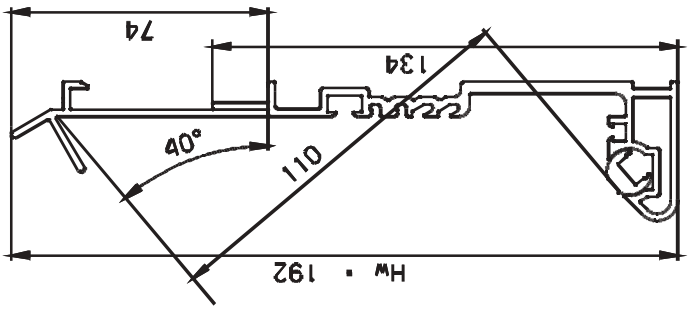


The wall connection glass strip can be fitted in two places: bottom and top. The location of the wall connection glass strip and the size of rubber used on the glass strip depend on the thickness of the roof covering and the roof pitch. The location of the wall connection glass strip and the size of the rubber used on the glass strip are stated in the assembly documents at the time the roof is delivered.

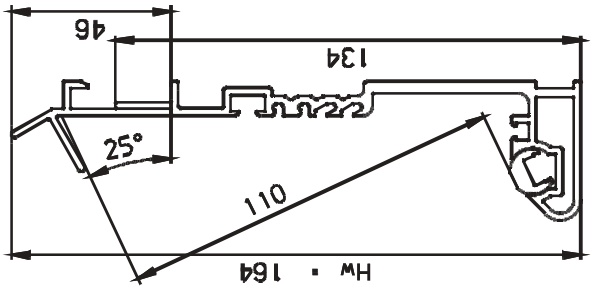
Last updated: 30.04.2009



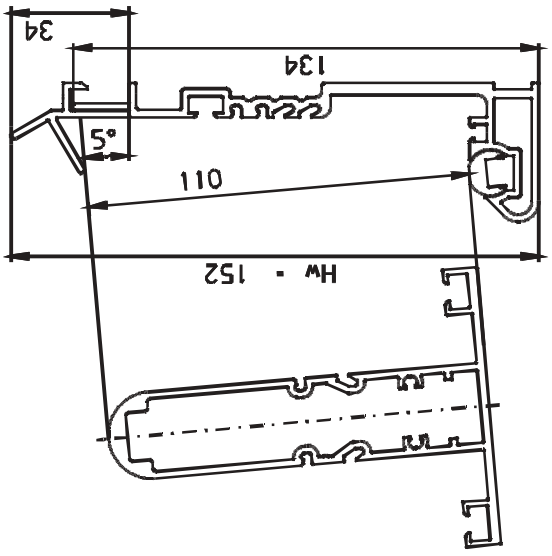
a = 45°
- Wall connection 175
- Wall connection Top section 74



a = 40°
- Wall connection 134
- Wall connection Top section 74



a = 25°
- Wall connection 134
- Wall connection Top section cut



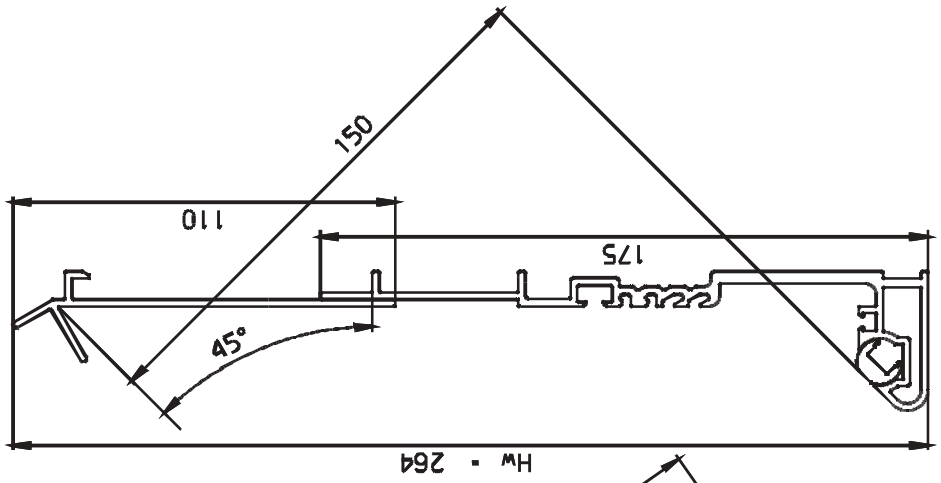
a = 5°
- Wall connection 134
- Wall connection Top section 34

Roof support 110

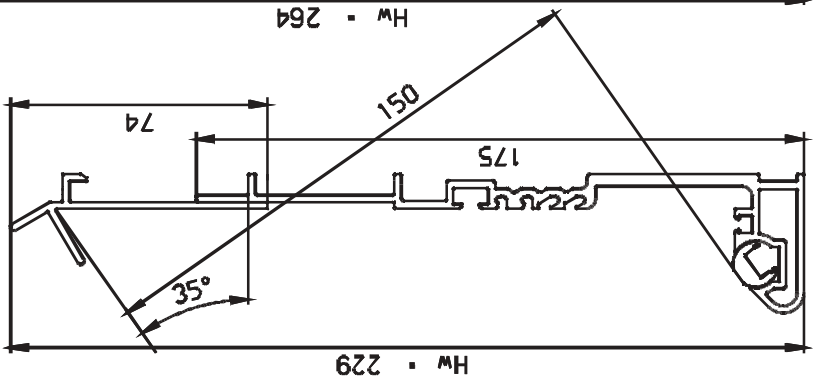
The wall connection height Hw depends on the roof pitch a.
Inserting wall connection 134: 5° < = a < = 40°
Inserting wall connection 175: 40° < = a < = 45°
Inserting wall connection top section 34: 5° < = a < = 20°
Inserting wall connection top section 74: 20° < = a < = 45°, requires a longitudinal section angled at up to 40°

Legend:
Hw = Height of wall connection
a = Roof pitch

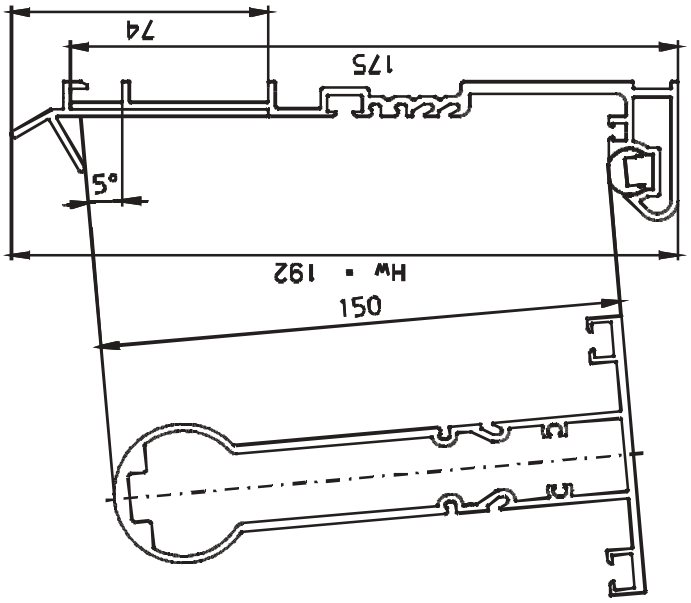
Last updated: 01.04.2004



a = 45°
- Wall connection 175
- Wall connection
  Top section 110 mm



a = 35°
- Wall connection 175
- Wall connection
  Top section 74 mm



a = 5°
- Wall connection 175
- Wall connection
  Top section 74 mm

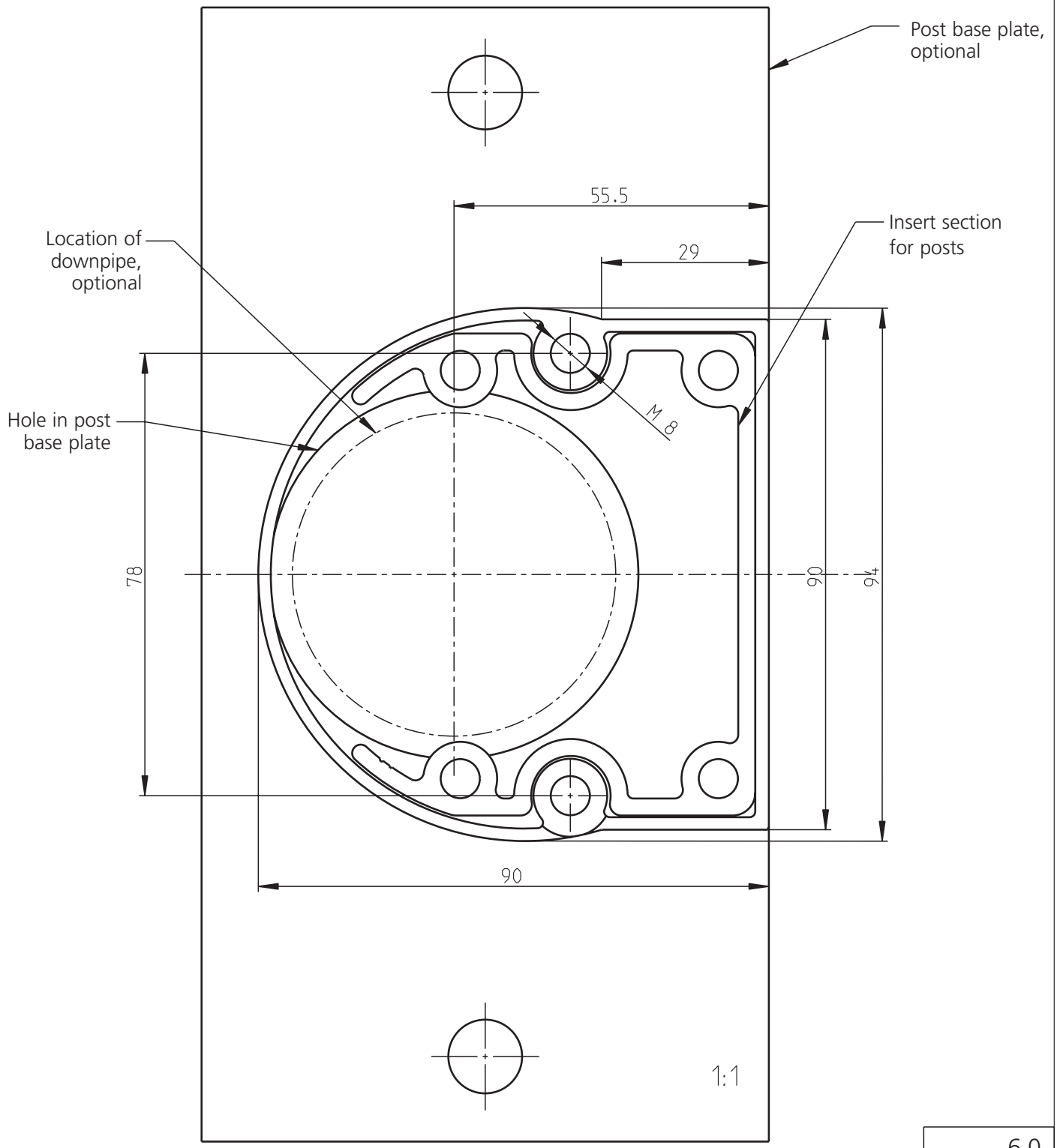
Roof support 150

The wall connection height Hw depends on the roof pitch a.
Inserting wall connection 175: 0° = 45°
Inserting wall connection top section 74: 5° < = a < = 35°
Inserting wall connection top section 110: 35° < = a < = 45°

Legend:
Hw = Height of wall connection
a = Roof pitch

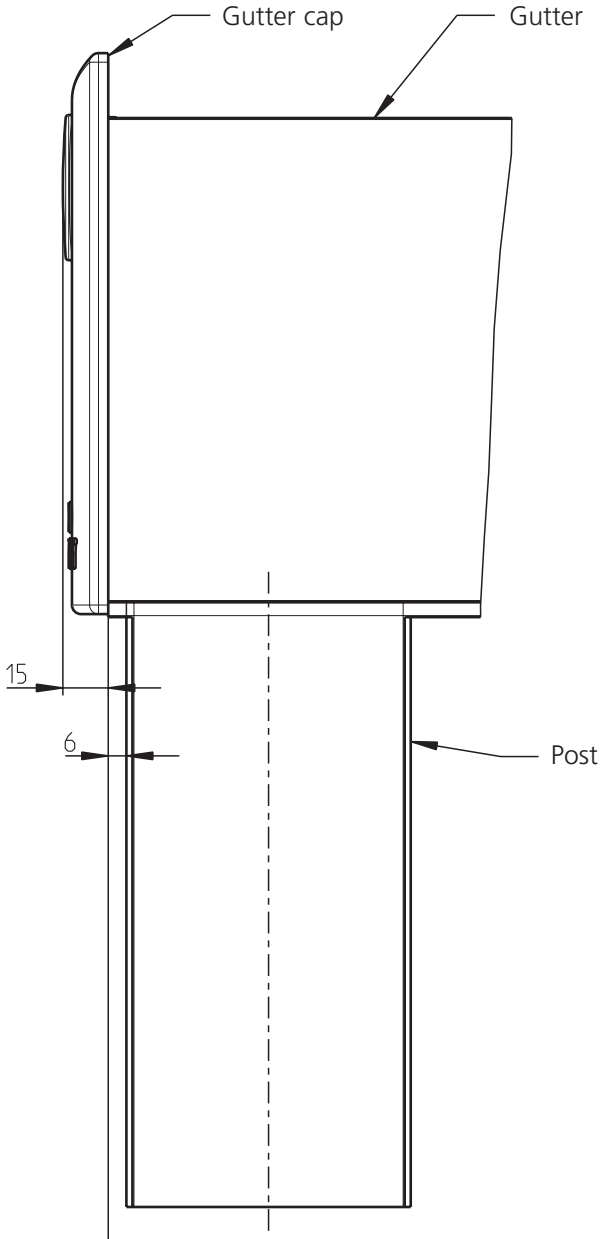
WeiTop Terrazza

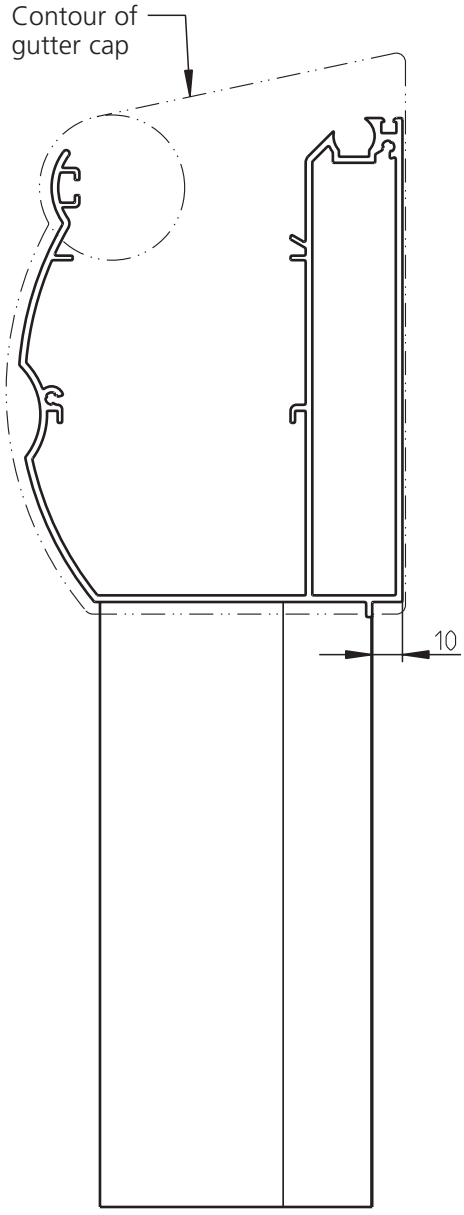
The standard length of the post has been set at 3 m to enable it to be set in concrete on-site. The self-supporting length of the posts is restricted to 2.4 m (this applies to a snow load of 1250 N/m^2). If greater snow loads apply, shorter posts will need to be used. If using post fixings, the post will need to be cut to length on-site. Alternatively, the post can also be cut to length at the factory. A drain can be integrated into the post. The drain is positioned to enable it to be incorporated even if an aluminium base is used to fix the post. If the "drain through the post" option is used, a hole is always drilled on-site to allow water to drain off the post (see page 6.3) to avoid ice forming in winter. The drain can also be run through a post base plate if used.

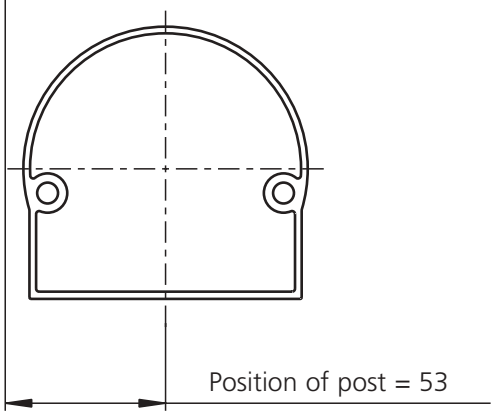


Last updated: 31.01.2007

Posts
Standard Position



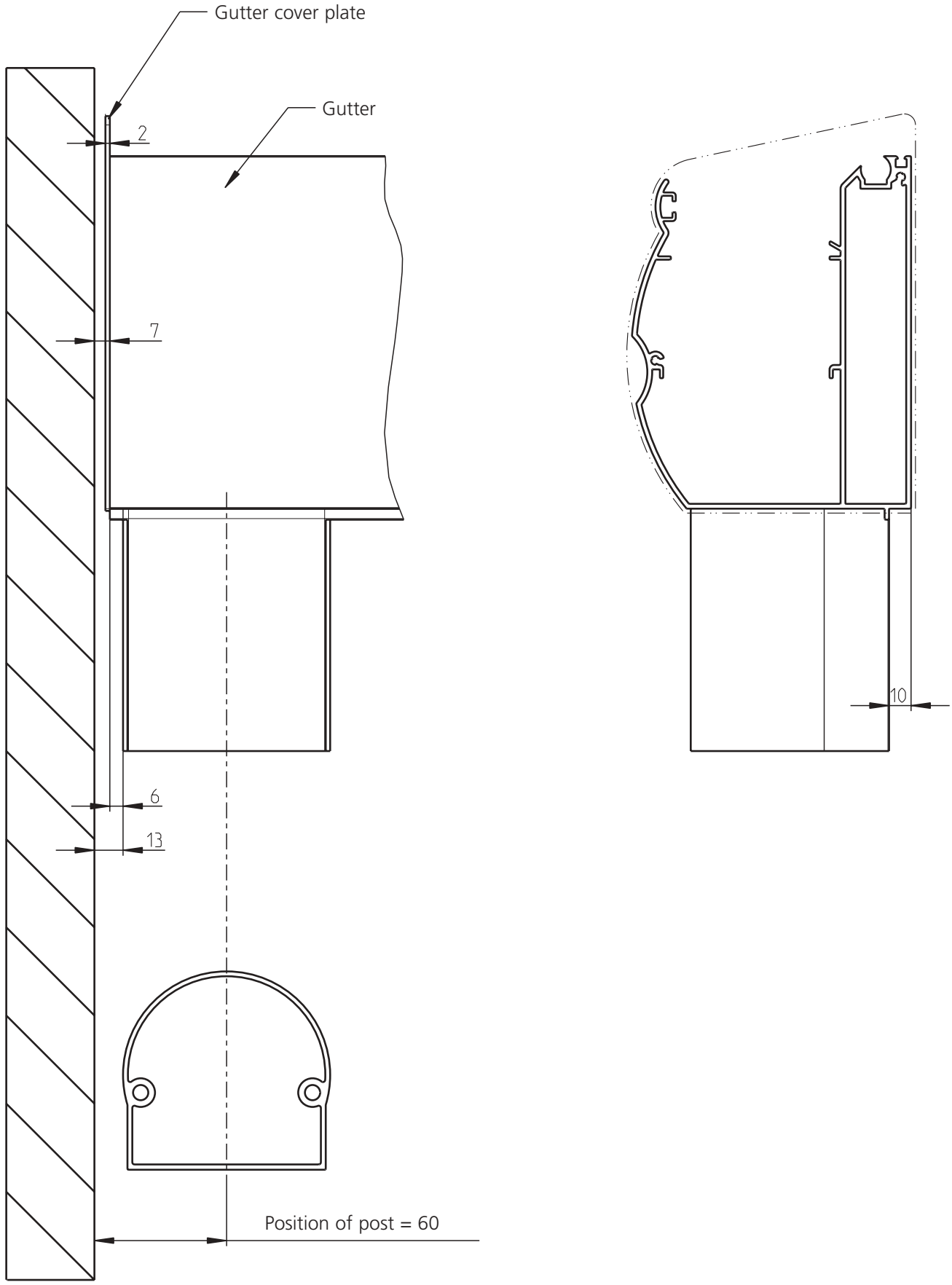




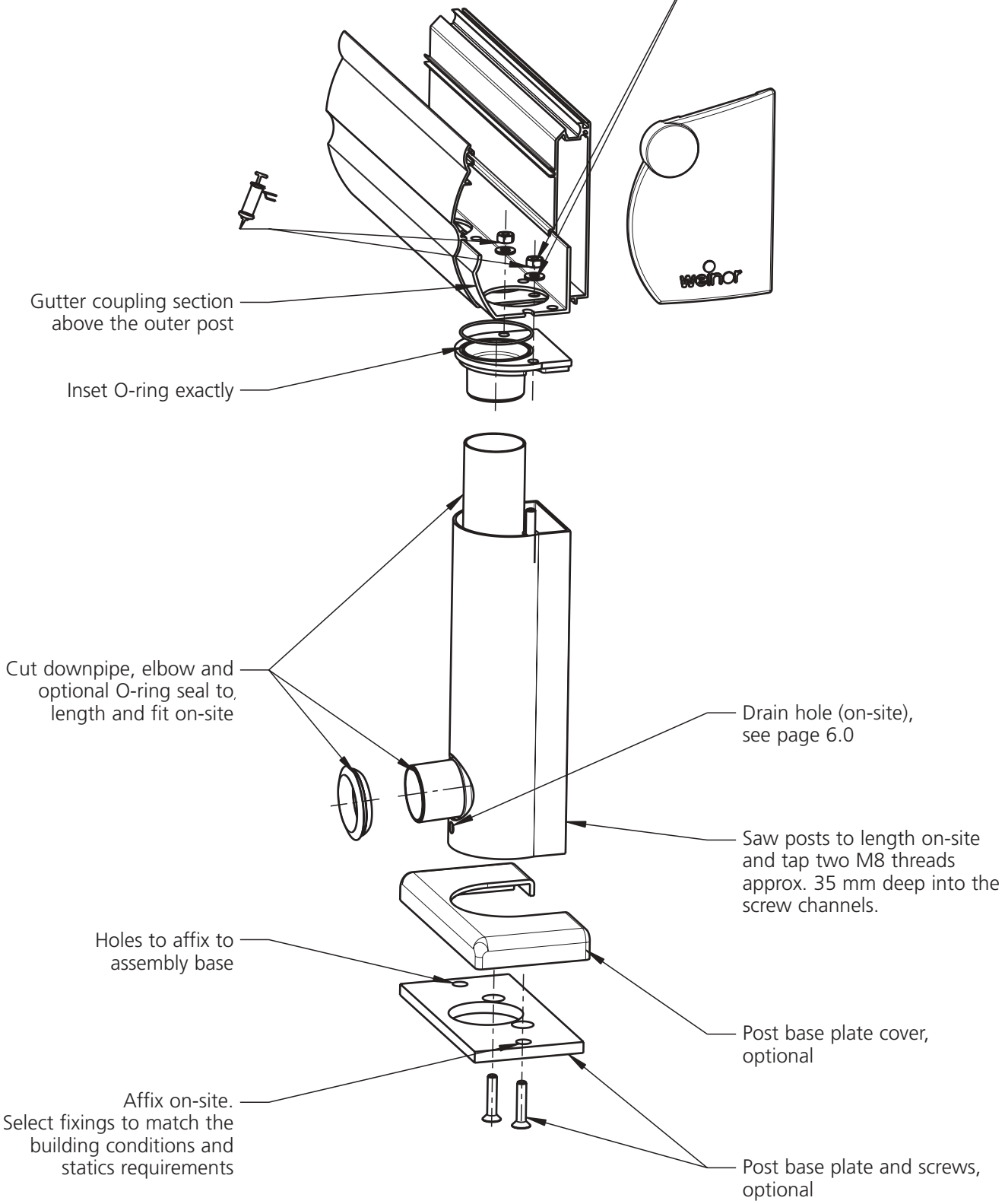
These drawings show the standard position of the side post below the gutter on a self-supporting roof.

Last updated: 31.01.2007

Standard Position of Posts
on the Wall



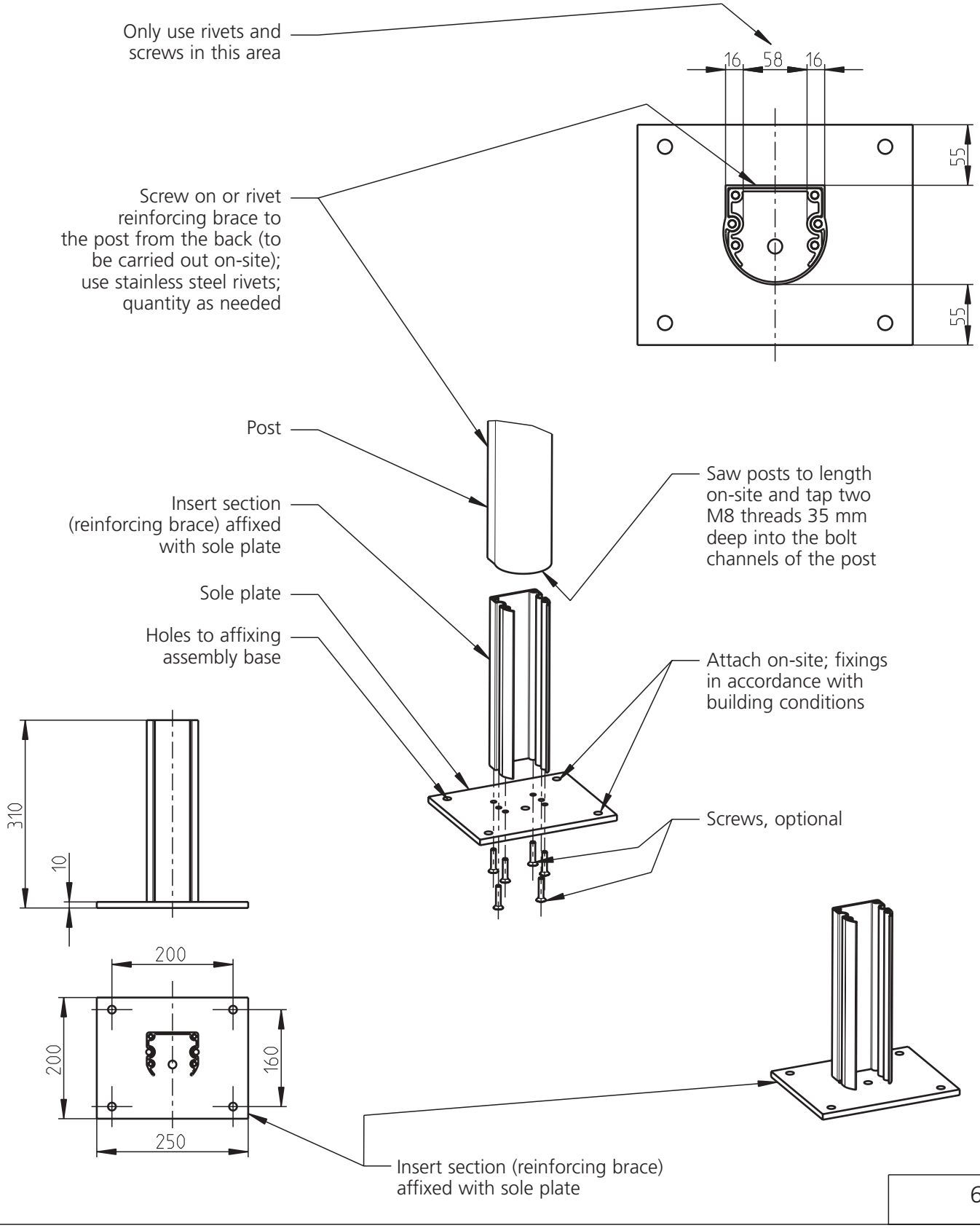
Last updated: 30.04.2009



Last updated: 30.04.2009

Posts with Aluminium Base for Posts

The aluminium base for the post can be used on larger sized roofs to affix the post to a bucket foundation or a concrete slab. Adding an insert section (reinforcing brace) 30 cm into the post gives the post greater stability. The "drain in post" option is also possible if an aluminium base is used, though the drain cannot then be led through the post base plate.

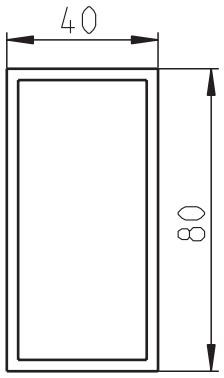


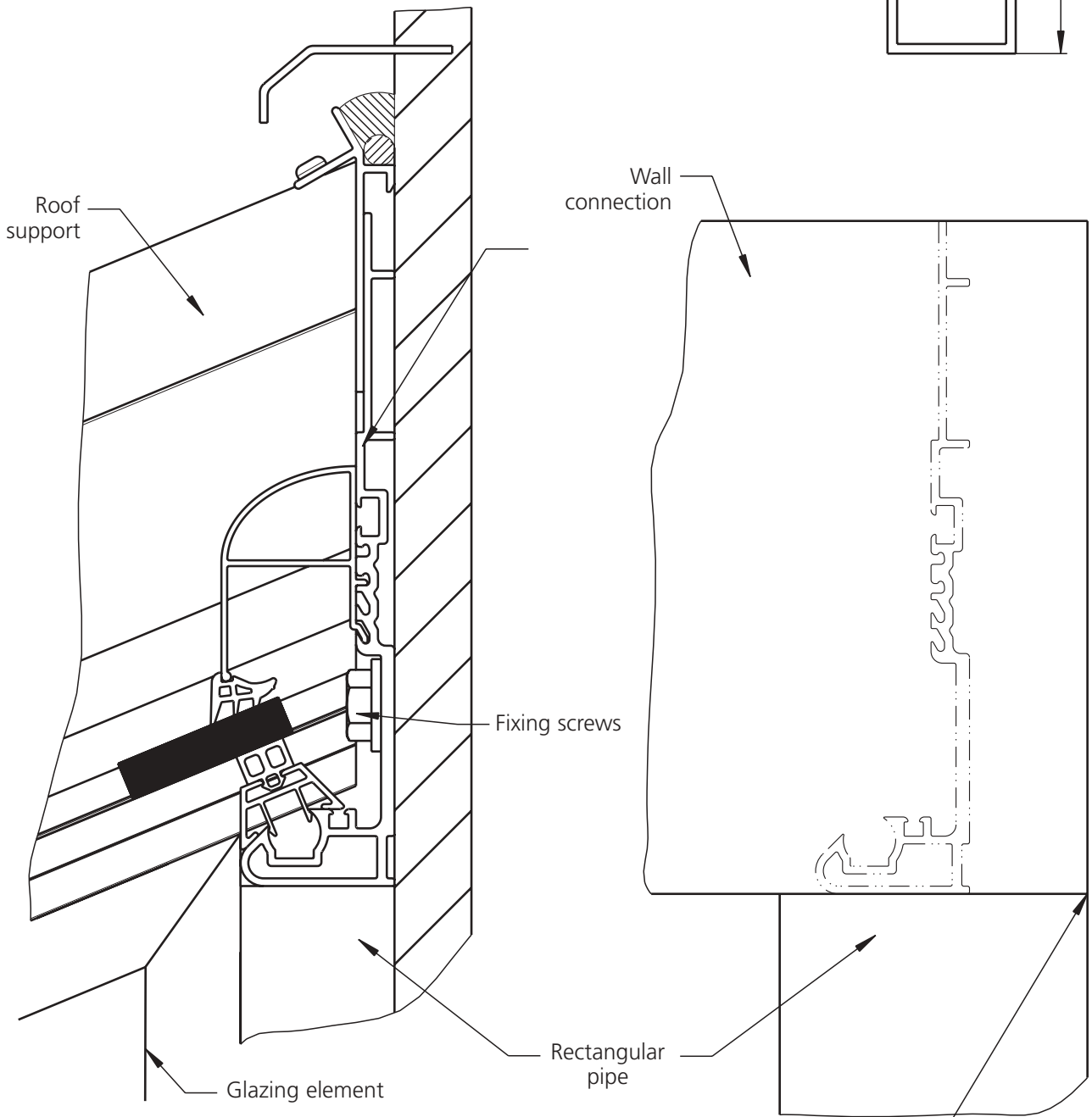
Last updated: 31.01.2007

Posts
under the Wall Connection

Reasons for using a rectangular pipe (e.g. 80 x 40 x 4):

- If the wall connection fixing screws are unable to hold the potential weight of the roof, the wall connection will need to be supported.
- If the glazing elements below the wall connection are to be notched, the rectangular pipe can be used.
- Depending on the individual needs and requirements, the rectangular pipe can be fitted on the outside in the middle below the wall connection.
- The rectangular pipe is fitted to the wall on-site.



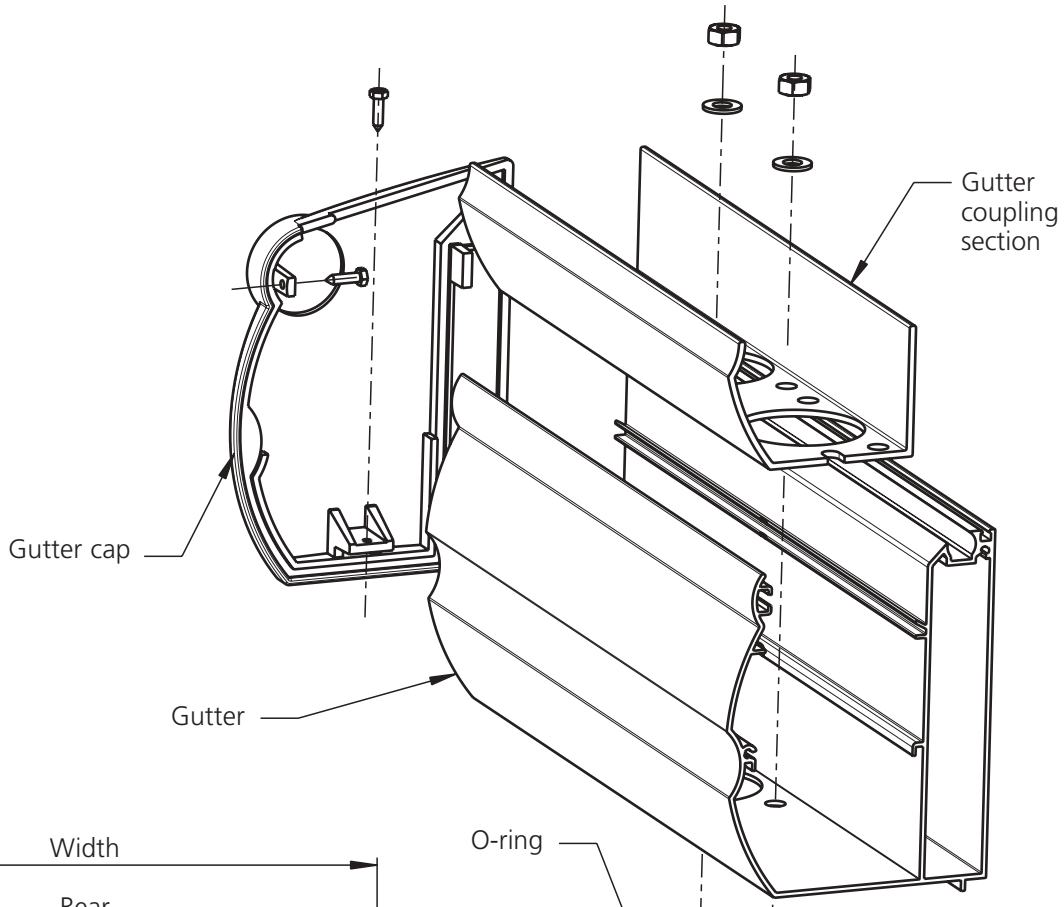


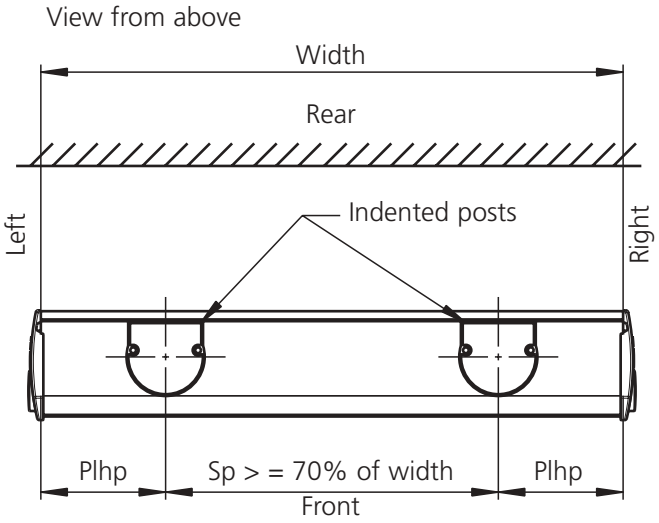
For orders for weinor glazing elements, please consult the "Glazing Elements for WeiTop Terrazza" product folder

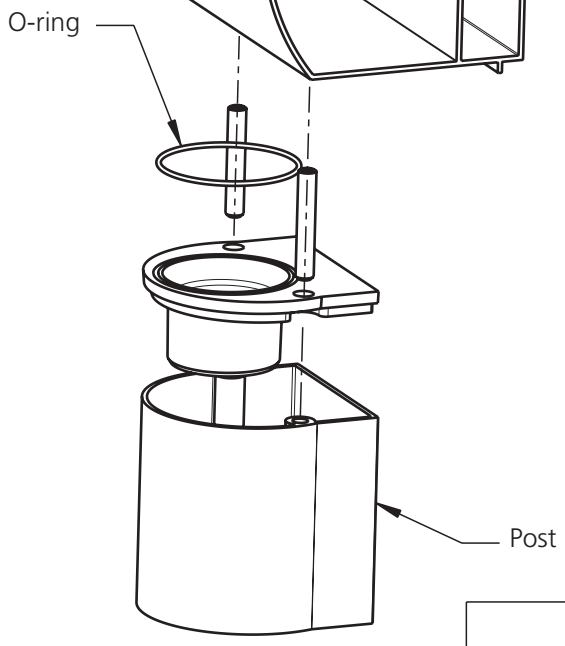
Last updated: 30.04.2009

Posts
Side Indented

Option: Side-indented post below the standard gutter.
The post can be indented at the side. For this to be performed, the measurements of the Plhp and Prhp (end of the gutter to the centre of the post) must be stated. The standard size of the Plhp and Prhp is 53. The Plhp and Prhp for side-indented posts can measure between 165 and 1000 mm (applies to loads of 750 N/m^2) and up 800 mm (applies to loads of 1250 N/m^2). In the case of side indented posts, the spacing between the two outer posts Sp must be at least 70% of the width W. The dimensions of the Plhp and Prhp may not be exceeded by 20% in individual cases and together not exceed 30% of the width W (see drawing). Indented posts with heavier snow loads available on request. A gutter coupling section is slotted into the gutter over all side indented posts. This is always untreated, i.e. uncoated. A surcharge applies for each indented post (see price list).
If the "side-indented post" option is chosen, the post with an aluminium base must be affixed to a concrete slab (at least C25) or the post must be set in concrete in a bucket foundation or other foundation (at least C25). These specifications do not apply for posts fitted under the crossbeam on the roof overhang option.







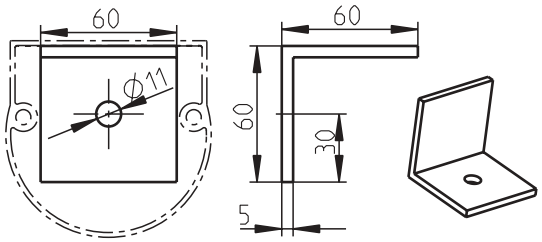
Legend:
Sp = Spacing between posts
Plhp = Position of left-hand post
Prhp = Position of right-hand post

Last updated: 31.01.2007

WeiTop Terrazza

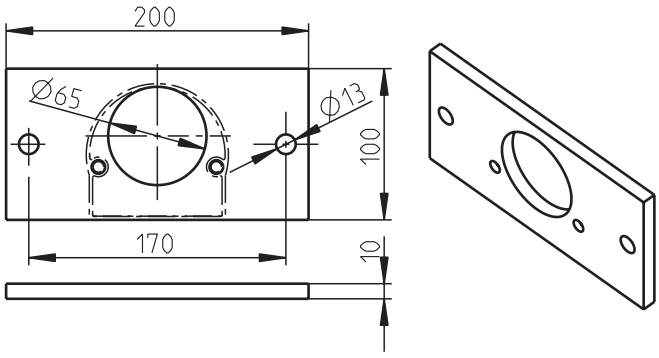
Various accessories are available for the post. Always ensure that the right means of fastening the post is selected to meet the on-site building conditions. Below you will find some guidelines to help you make the right choice. The site foreman is responsible for selecting the right means of fastening the post. The most secure way to fasten the post is always to set it in concrete. Larger roofs with just two posts should always be set in concrete.
The following guidelines should be taken into account when deciding on the right means of fastening:

- roofs between two walls are not susceptible to side impact
- roofs with at least three posts are less susceptible again to side impact
- the longer the posts, the more crucial their fasteners and reinforcement become
- the edge distances for the screw fittings towards the end of the bucket foundation or the concrete slab must be taken into account.



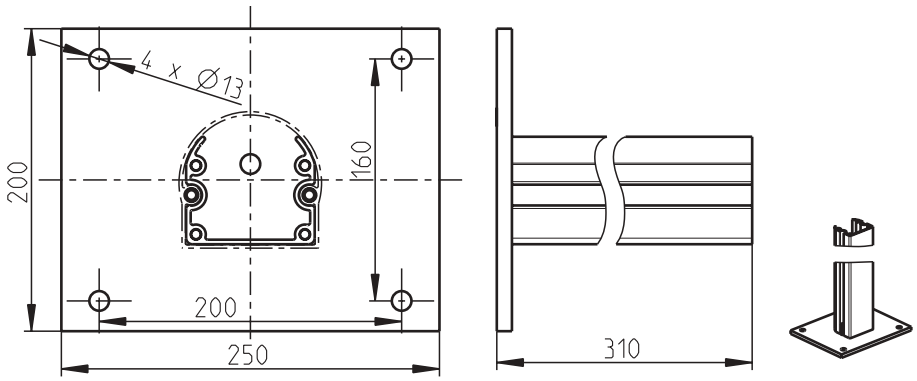
Angle bracket for post fastener:

- the angle bracket may only be used indoors, where the occurrence of wind and snow loads can be excluded.



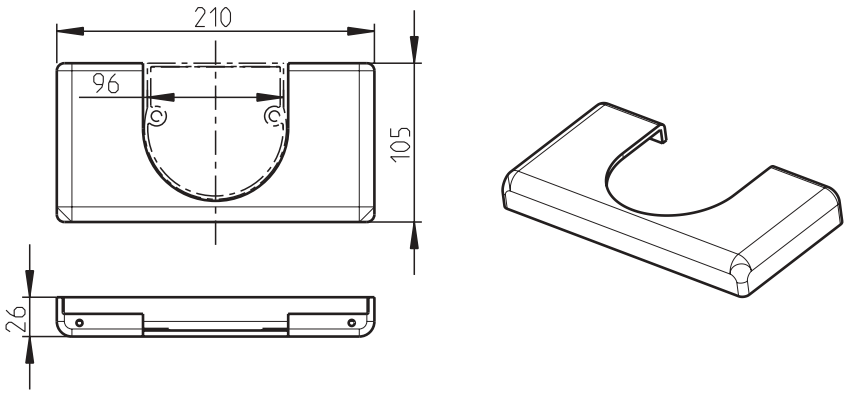
Post base plate:

- for use on roofs with a short projection (approx. 3 m) and light wind and snow loads (max. 750 N/m²)
- affix to the bucket foundation (at least C25) or a concrete slab (at least C25 and at least 15 cm thick)



Aluminium base with post fixing:

- for use on roofs with a long projection and light wind and snow loads (max. 750 N/m²)
- affix to the bucket foundation (at least C25) or a concrete slab (at least C25 and at least 15 cm thick)



Post base plate cover:

- to mask the fixing screws on the post base plate

Last updated: 30.04.2009

WeiTop Terrazza

1. WeiTop Terrazza, sample roofs, dummy models:
   Two standard samples can be ordered on favourable conditions as showroom exhibits.

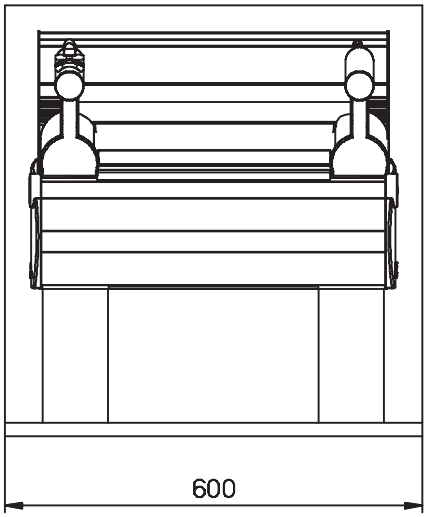
2. WeiTop Terrazza with conservatory awning:
   Explanations on how to calculate the size of a conservatory awning (WGM) and instructions on how to install a conservatory awning on a WeiTop Terrazza roof can be found on several pages in the product folder.

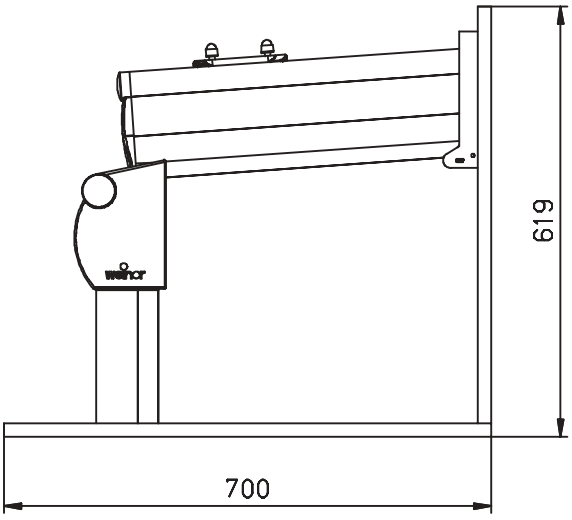
3. WeiTop Terrazza with WGM Sottezza:
   Explanations on how to calculate the size of a WGM Sottezza and instructions on how to install a WGM Sottezza under a WeiTop Terrazza roof can be found on several pages in the product folder.

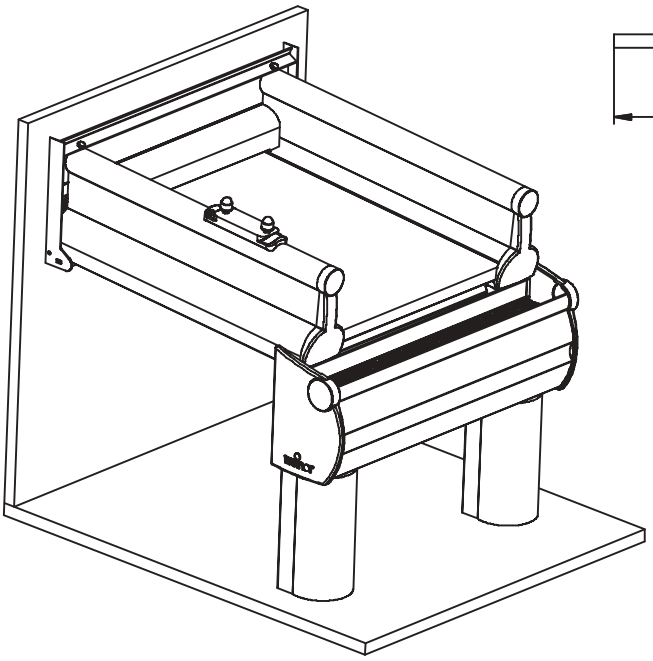
4. WeiTop Terrazza, accessories and other options:
   Optionally available accessories and their use are explained on the product folder pages.
   These also describe how to design the foundations and install vertical elements.

Last updated: 01.04.2004

WeiTop Terrazza L

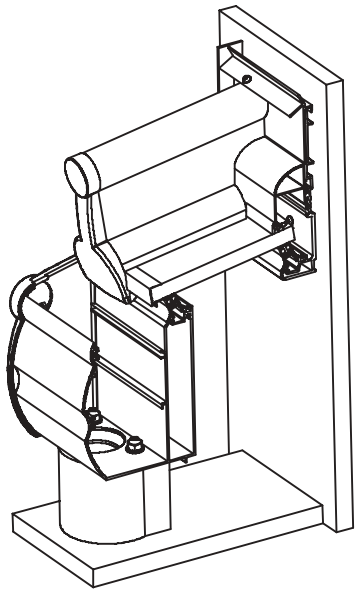


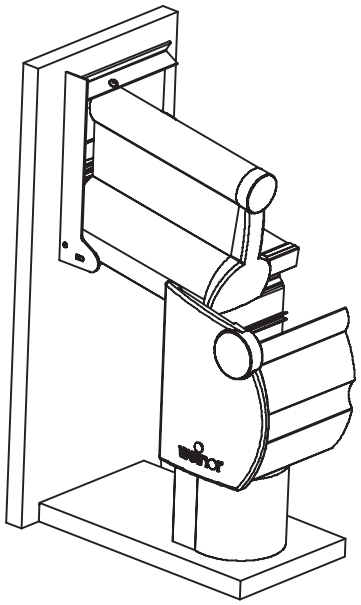


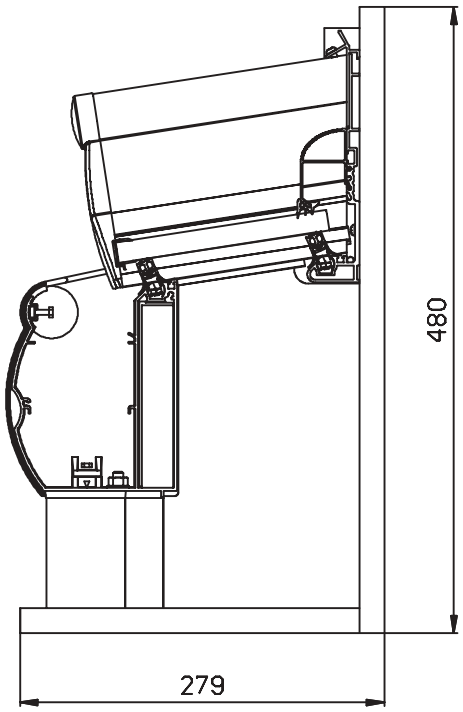


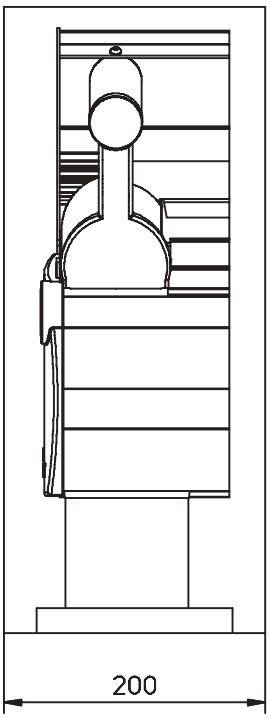
Last updated: 01.04.2004

WeiTop Terrazza L









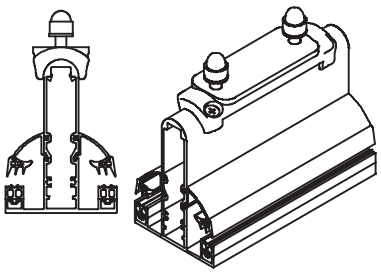
Last updated: 01.04.2004

WeiTop Terrazza

WeiTop Terrazza with WGM
Support plate provision for WGM

General explanations (applies to WGM 1000 and 2020):

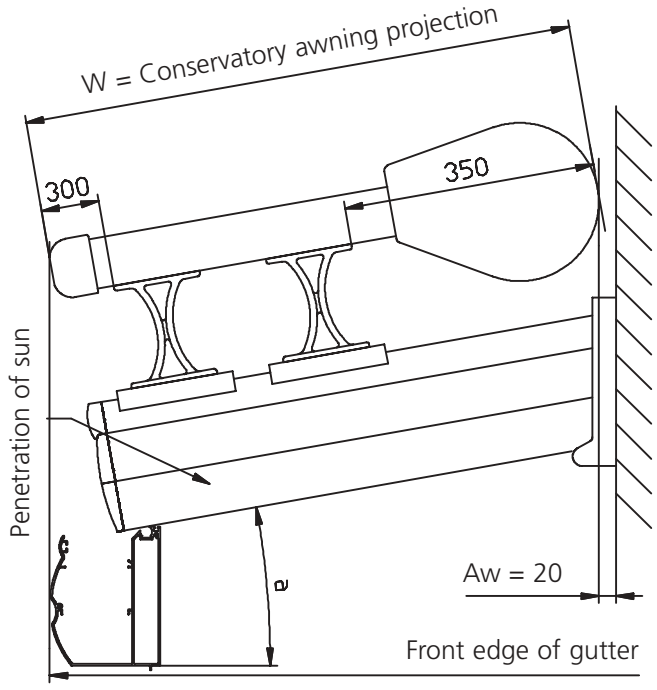
The WeiTop Terrazza can also be ordered with a conservatory awning (WGM). The size of the conservatory awning can be determined using the dimensions of the Terrazza. The WeiTop Terrazza
can also be ordered together with a support plate provision (optional extra). In this case, the mounting plates required to affix the conservatory awning at the correct points are already fitted onto the roof supports. The fixing bolts required to affix the conservatory awning support brackets are already fitted to the mounting plates (see drawing). When ordering the conservatory awning, the awning's projection can be determined in two ways. These are described in detail below.



Conservatory awning projection up to…

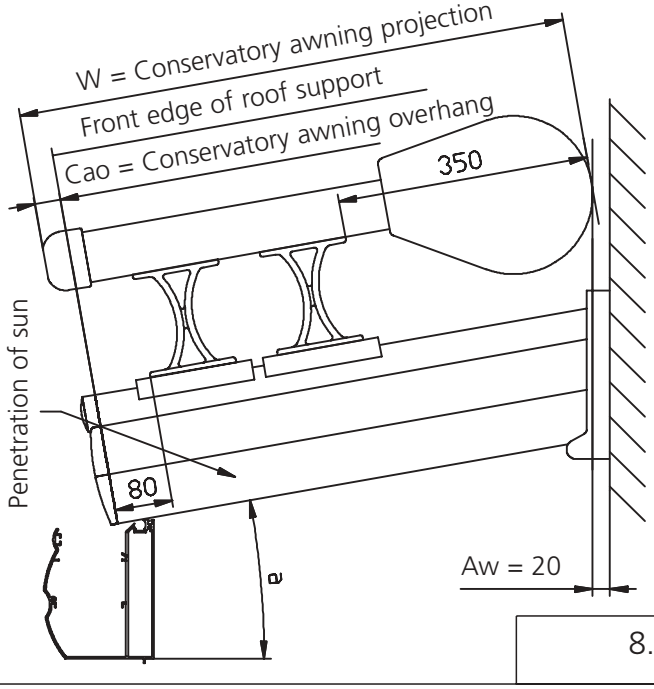
End of WeiTop Terrazza gutter
Explanations:

- The conservatory awning always ends with the front edge of the gutter. As a result, the projection B does not depend on the height of the support bracket used on the conservatory awning.
- The standard position of the top bracket is 350 mm.
- The standard position of the bottom bracket is 300 mm.
- The standard distance from the wall Aw is 20 mm.
- The location of the roof, position of the sun and height of the support brackets dictate whether more or less sunlight penetrates between the conservatory awning and the gutter.



End of WeiTop Terrazza roof support
Explanations:

- The standard end position of the conservatory awning is the front edge of the roof support. As a result, the projection B depends on the height of the support bracket used on the conservatory awning. In other words: the greater the support bracket height, the larger the projection B on the conservatory awning.
- The conservatory awning overhang (Cao) can also be stated to prevent the conservatory awning protruding past the roof supports.
  0 = < Cao = < 720 mm
- The standard position of the top bracket is 350 mm and that of the bottom bracket 80 mm.
- The standard distance from the wall Aw is 20 mm.
- The location of the roof, position of the sun and height of the support brackets dictate whether more or less sunlight penetrates between the conservatory awning and the gutter. The amount of penetrating sun can be minimised by selecting an overhang Cao.



Last updated: 01.04.2004

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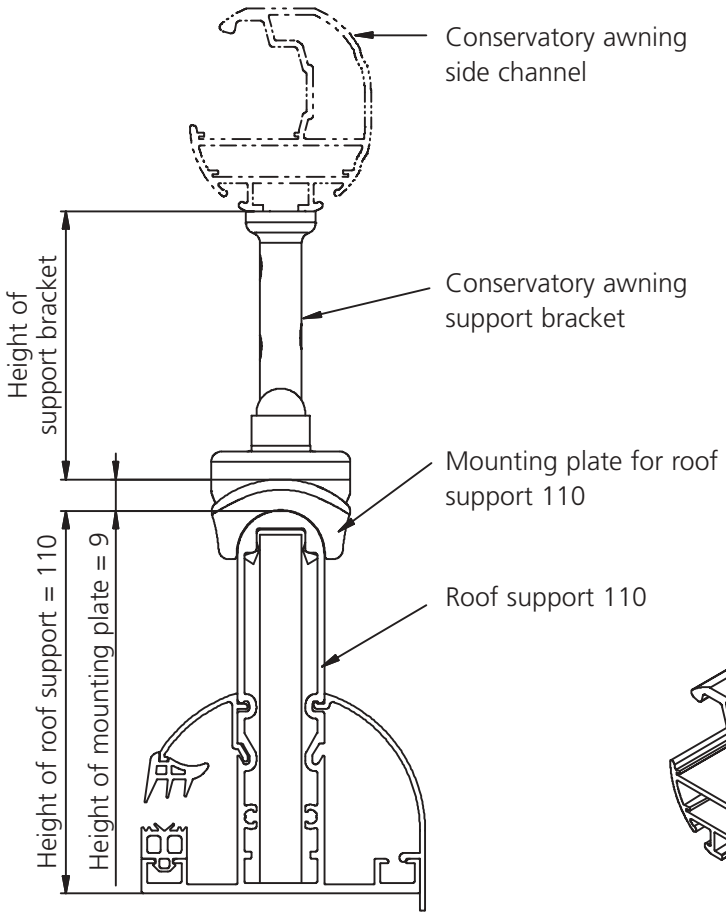
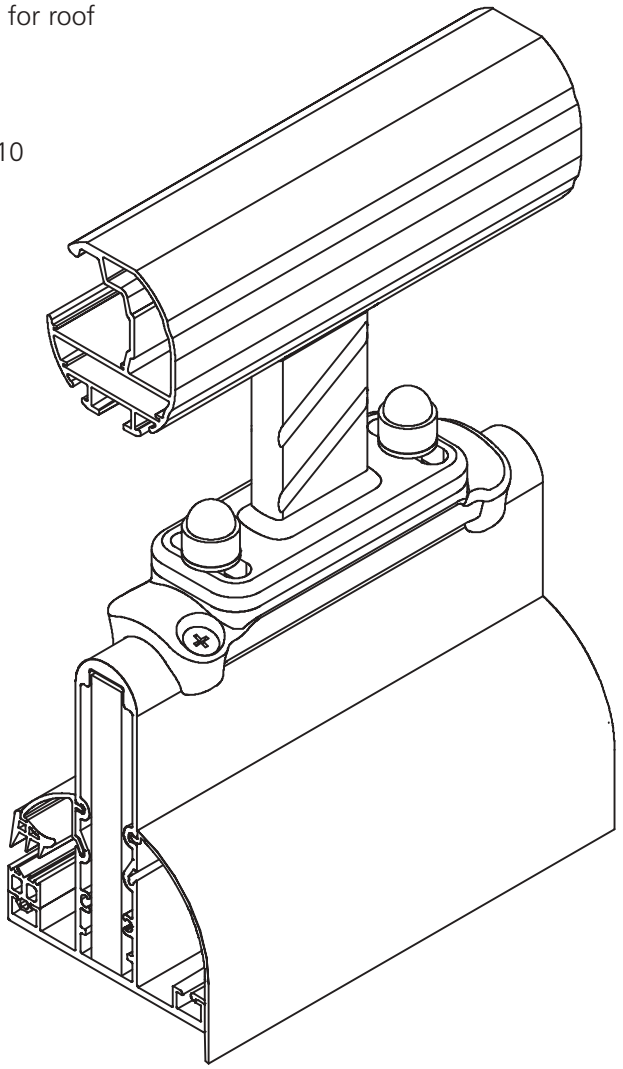
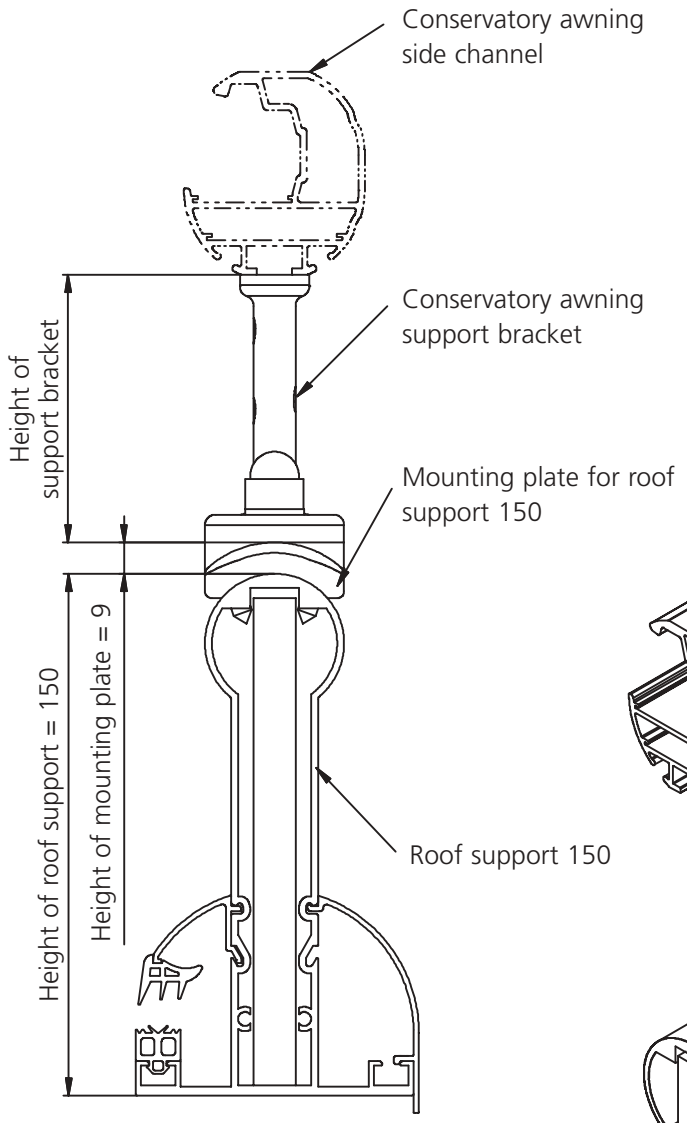
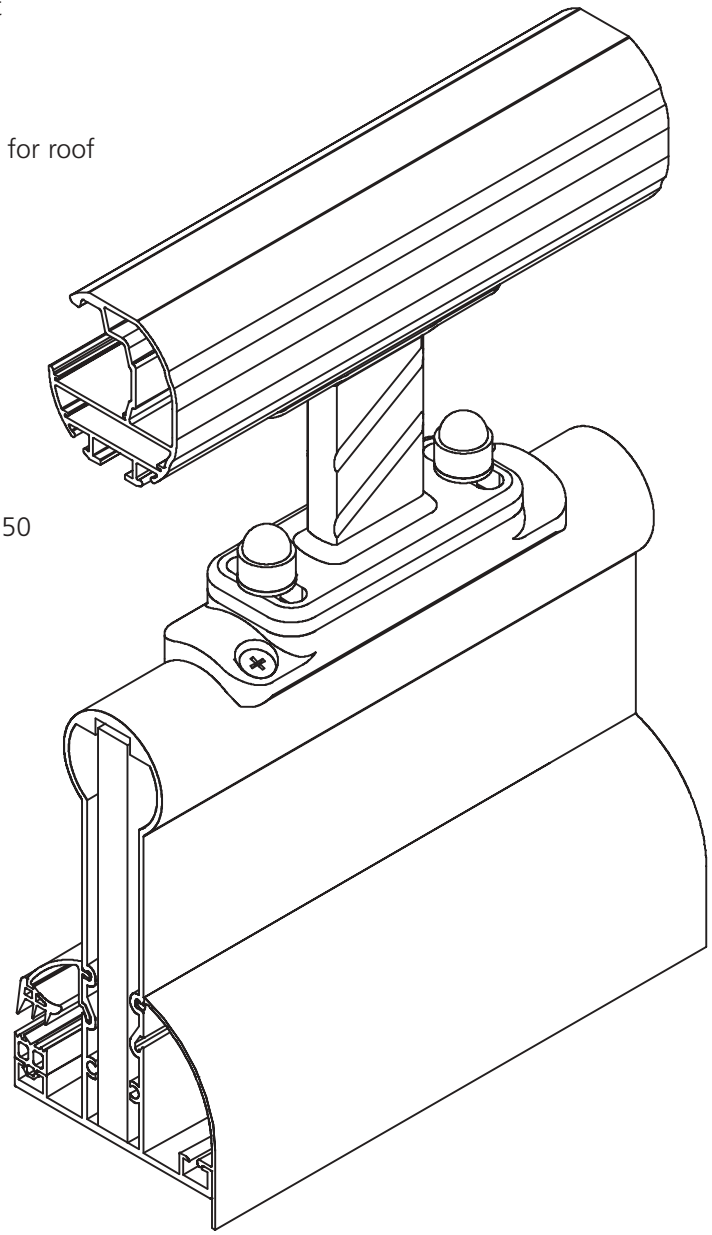








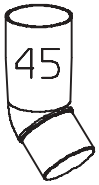
WeiTop Terrazza

The drain accessories shown here can be ordered as extra items individually or as a set. These accessories are needed to lead rainwater out of the gutter, through the post and into the garden, for example.
The parts shown here are available in a white similar to RAL 9016 and in a brown similar to RAL 8017.
The individual drain parts must be connected using special adhesive. This may require cleaning the parts with a cleaning agent.
The cleaning agent and special adhesive can also be ordered.

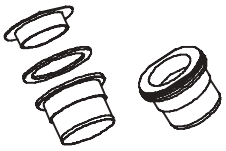
Downpipe 53, 2.5 m

Clamp 53, pack of 2
- to affix the downpipe

Bend 53, 45°



Screw socket 50:
- screws into gutter



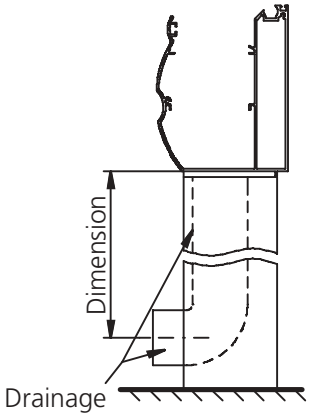
Bend 53, 87°

Pipe sleeve 53:
- (extension) to connect two downpipes

Marley adhesive:
- to glue pipes

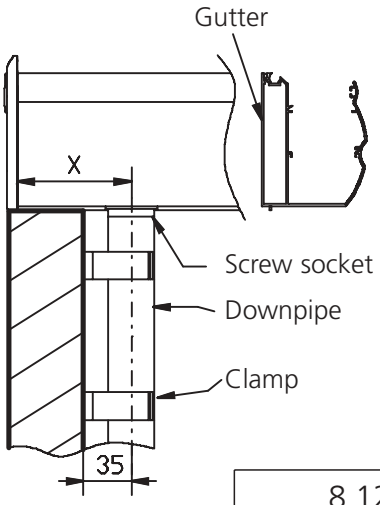
Marley cleaner
- to clean pipes

Drainage through the post
Water in the post drains through a plastic pipe which runs through the inside of the post. The outlined height must be stated when placing an order. The items are supplied in a separate pack.
If drainage through the post is the chosen option, a 2.5 m downpipe and 87° bend are also supplied.
Drainage is only possible at the front (as shown here) and with an 87° bend.
The downpipe must be trimmed and fitted into the post on-site.



Drainage without posts:
The dimension X must be quoted when placing an order.
The following is supplied:
- 1 screw socket
- 1 downpipe (2.5 m)
- 2 clamps
- 1 bend (87°)

The items are supplied in a separate pack.
The downpipe must be trimmed on-site.
The distance between the wall and the centre of the downpipe measures 60 mm in the case of the old clamp and 35 mm in the case of the new one.



Last updated: 01.01.2005

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Cover Plates
for Roof Covering

- The cover plates are needed to protect the front of the glass or the web plates in the vicinity of the gutter.
- The 16 mm and 10 mm cover plates are always silver anodised and can be ordered in 1 m lengths.
- The cover plates are cut to size and fitted on-site

16 mm cover plates (for 16 mm thick web plates)

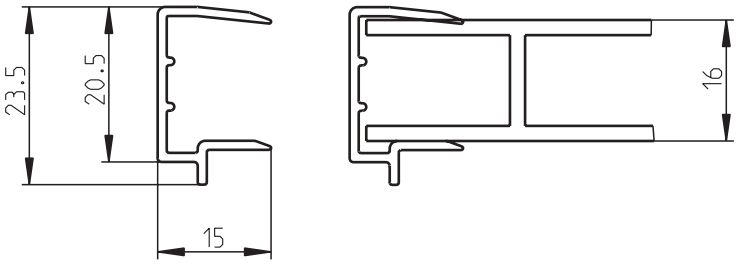
Benefits:

- The 16 mm cover plate protects the front of the web plates.
- It keeps out bugs, vermin and dirt.
- The cover plate guards the front of the web plates from mechanical damage.

Disadvantages:

- Dirt collects on the roof in front of the cover plate.

Scale 1:1



10 mm cover plates (for glass)

Benefits:

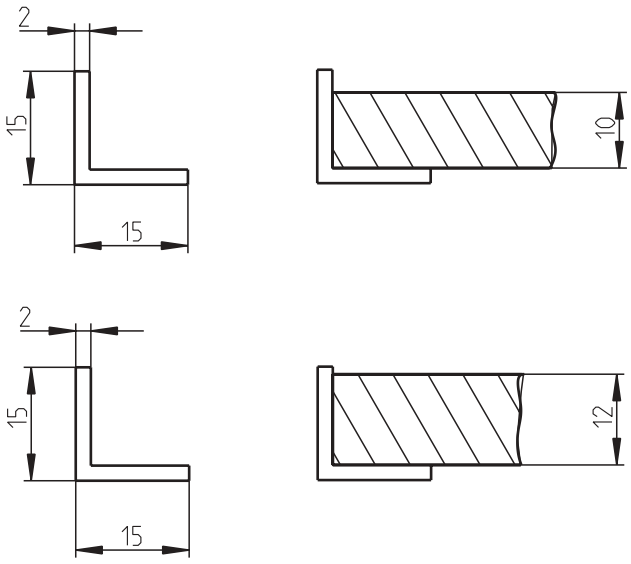
- The 10 mm cover plate protects the front of the glass (front trimmed edges).
- When cleaning the roof or gutter, it therefore reduces the risk of injury resulting from coming into contact with the front trimmed edges of the glass.

Disadvantages:

- Dirt collects on the roof in front of the cover plate.

The potential risk of injury arising from the trimmed edges of the glass can also be reduced by ordering sanded glass.

Scale 1:1



Last updated: 31.01.2007

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Side Walls
Version 1 and Version 2

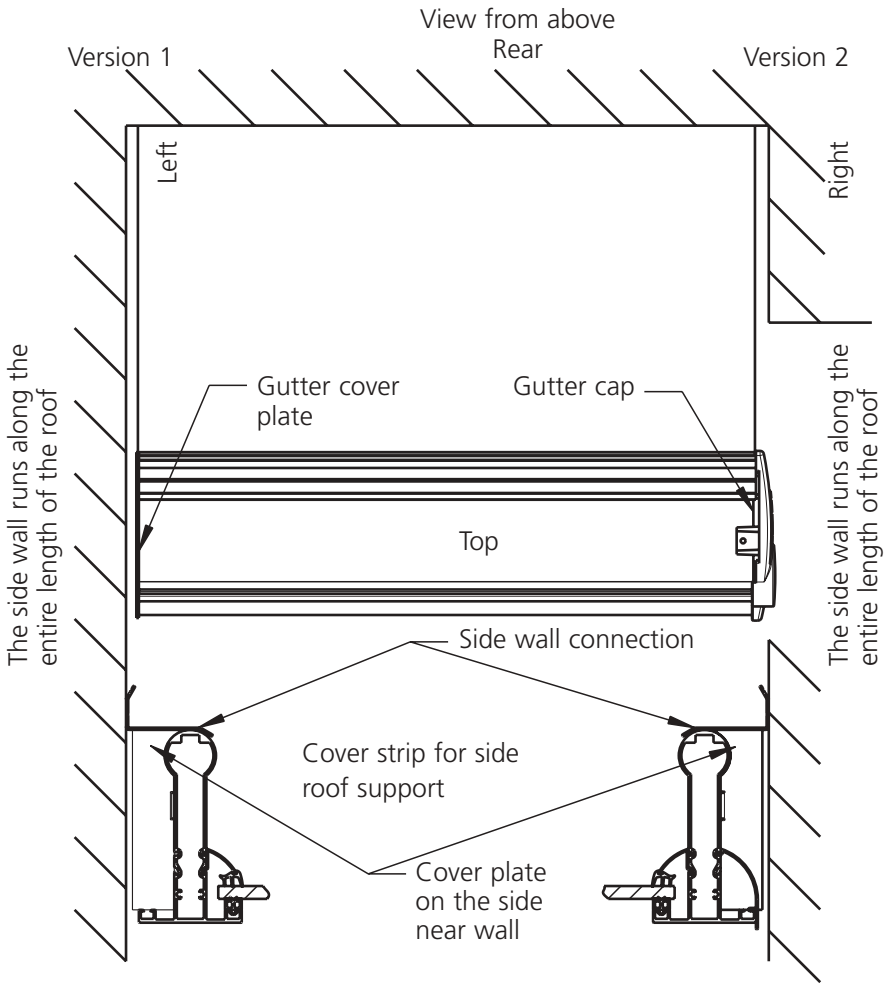
When specifying the side walls, two options are available, both of which are subject to an additional charge.

Version 1
The side wall runs along the entire length of the roof.
- gutter cover plate instead of the cap
- the roof support cover plate on the wall side plus the side wall connection

Cutting to length on-site:
- the side wall connection runs from the wall connection to the front edge of the crossbeam

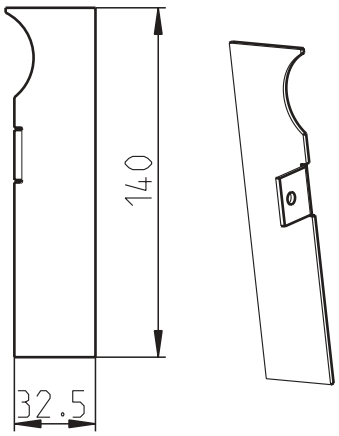
Version 2
The side wall ends before the gutter.
The following is supplied:
- the side gutter cover strip
- the roof support cover plate on the wall side plus the side wall connection

Cutting to length on-site:
- the side wall connection runs from the wall connection to the end of the side wall
- the side roof support cover strip runs from the roof support cover plate on the side near the wall to the front edge of the roof support

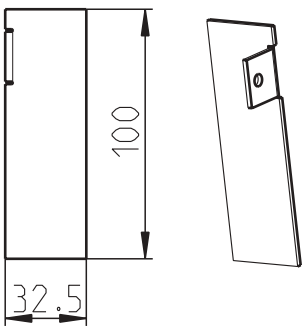


With both versions, the side wall connection will need to be cut to length on-site in keeping with the building conditions; with Version 2, the side roof support cover strip will also need to be cut to length.
The roof support cover plate on the side near the wall will need to be affixed to the roof support on-site.

Size 150 roof support cover plate on the side near wall on "L" Terrazza

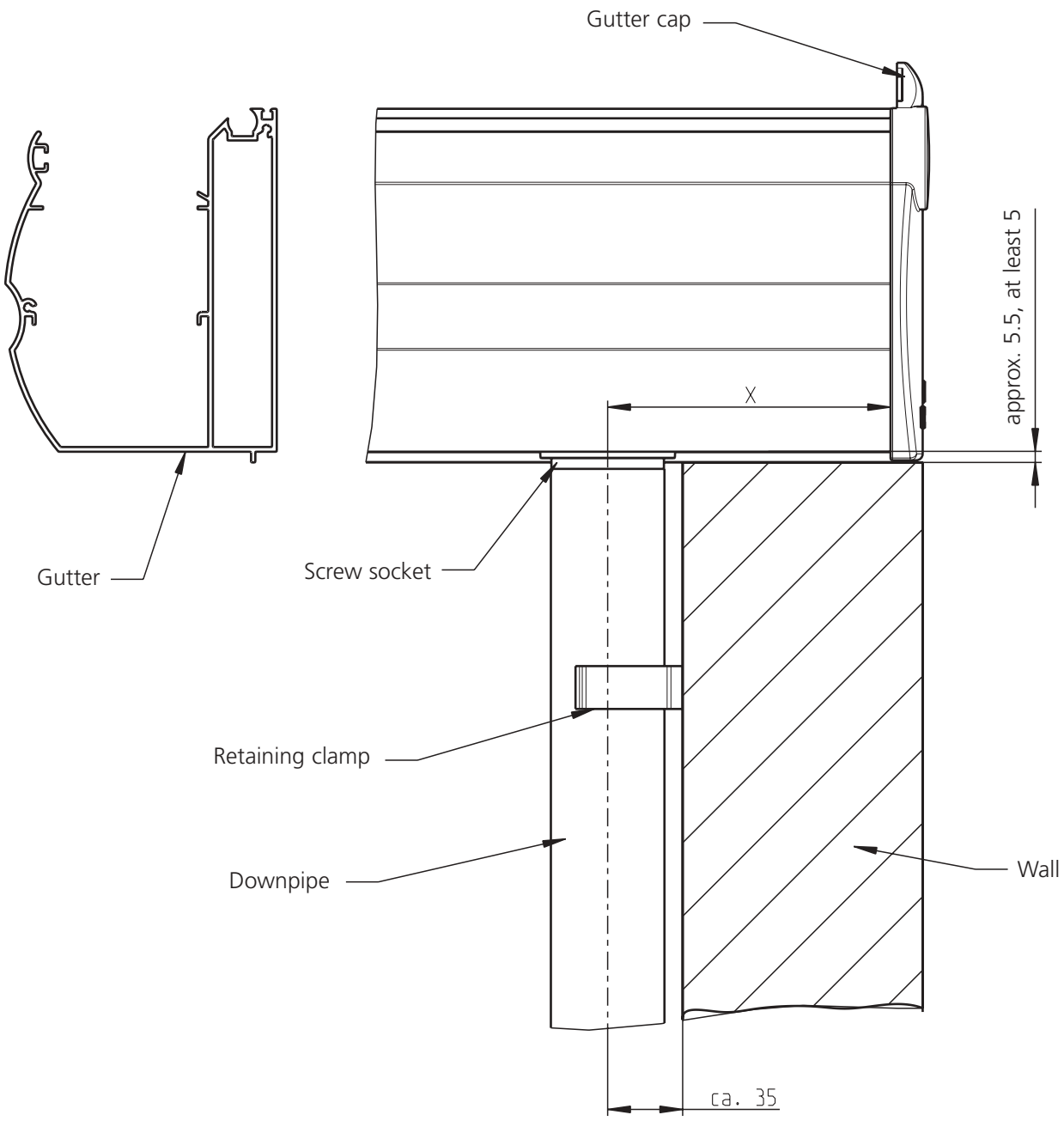


Size 110 roof support cover plate on the side near wall on "S" Terrazza



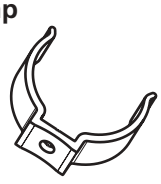
Last updated: 31.01.2007

Gutter on Wall
without Post with Drainpipe



- The dimension X (end of gutter to middle of hole) must be specified at the time of ordering to ensure that the drain hole can be drilled into the gutter!
- If you would like to order the accessory pack, please make sure you specify this on the order form.
- The drainpipe with retaining clamps is used if there are no posts and the gutter rests on one, or perhaps even two, walls.
- The gutter must be lined and fitted where it rests on the wall.

Clamp



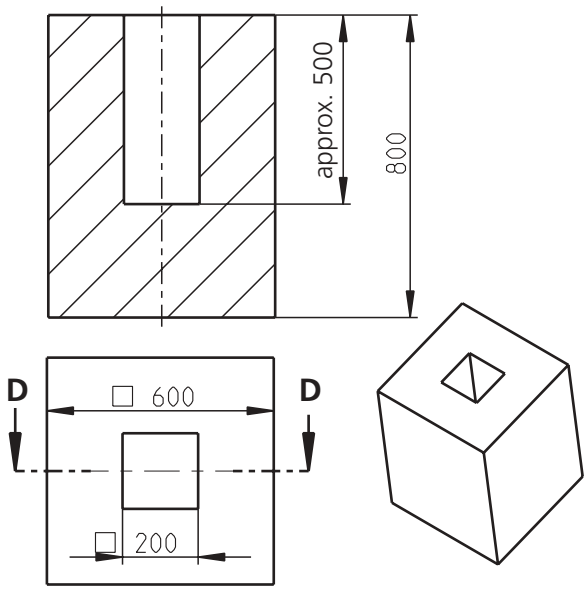
Last updated: 31.01.2007

WeiTop Terrazza

Foundations for WeiTop Terrazza

The WeiTop Terrazza should always be installed on or in a footing system (bucket foundation) or concrete slab (at least 15 cm thick). The best and most stable method is to set the posts in concrete. When setting them in concrete, always ensure that suitable corrosion protection is applied between the aluminium post and the concrete to ensure that the post has a long service life.
The concrete must always be C25 quality or higher. Instructions apply to standard locations where an 80 cm deep foundation is sufficient. The foundations may need to be deeper if the location is known to have deeper permafrost. The dimensions of the foundations apply to posts that are no longer than 2.4 m and for a maximum snow load of 1250 N/m^2 when set in foundations on solid ground (e.g. clay). When affixing the supplied post attachments, always ensure that the permissible edge distances (edge of the foundations to the centre of the screw) are not exceeded (see also Structural Standards).

To be able to set the post in the concrete foundations, a hole must first be made in the foundations in order to align the post at the time of fitting.

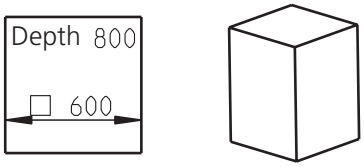


To ensure that the post is properly secured in the foundations, the post will need to be installed in such a way that it cannot be removed from the foundation. There are various ways of achieving this, which can also be combined:

- After trimming the post to size, tap an M8 thread approx. 35 mm into the screw slot in the bottom end of the post into which hexagon head setscrews are inserted, for example.
- It is also possible to turn screws into the post or to drill several holes (at least 13 mm) into the side to allow concrete to flow into the holes.

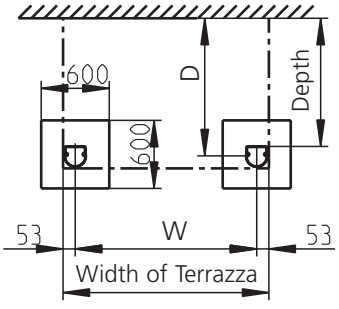
Before the post is set in the foundation it must be protected against corrosion using a protective agents containing chromates or silicates, or using an adhesive bitumen coating.

On foundations without holes or on concrete slabs, the post with the post base plate or aluminium base is affixed to the foundations using the sole plate.

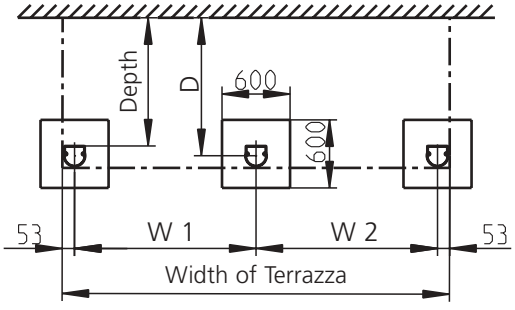


On request, a foundation plan can be sent with the order confirmation. This plan can be used as a guideline for pouring the foundations for the roof. The drawings contained in the plan specify the dimensions W, W1, W2, … and D. The W dimensions specify the width of the foundations from centre to centre which is equivalent to the measurements from the middle of one post to the middle of another. The D dimension indicates the distance from the wall to the centre of the foundations or the middle of the post.
On side indented posts, the dimensions Pl and Pr indicate the distance from one end of the roof (end of the gutter without cap) to the centre of the foundations.
Below are a few sample drawings of how these are shown.

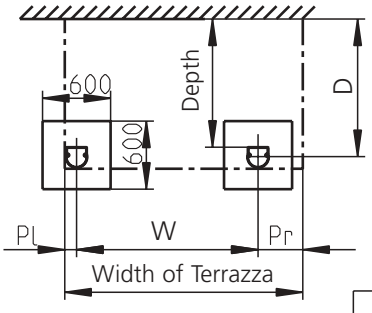
2 posts



3 posts



Indented posts **D = Depth + 45**



Last updated: 31.01.2007

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WeiTop Terrazza L
Roof Overhang Option

1. Product description, product notes

A WeiTop Terrazza with roof overhang can only be supplied for roof support version Type "L". The roof overhang option is only available for rectangular roofs.
Please note that there is a separate order form for this option.
On the roof overhang version, square posts (70x70 mm) are inserted under a crossbeam. As a rule, the posts are always located at the outermost points and are usually supplied in 3 m lengths and without fixings (e.g. aluminium base).
A gutter is supplied as standard. It is also possible to leave out the gutter and reduce the overall price.
The roof pitch can be any value ranging between 5° and 45°. Please note that, for higher roof pitches and a larger roof overhang, the bottom edge of the gutter may be lower than the bottom edge of the crossbeam.

2. Selecting posts and crossbeams

In the case of the roof overhang option, the standard number of posts is as stated in the price list. Other circumstances (statics) may mean that, even in the standard case (750 N/m^2), steel will need to be inserted into the crossbeam.
This steel is already included in the surcharge.
To find out if and what steel is inserted into the crossbeam, please consult the tables below.
Should fewer posts be required than usually envisaged, please ensure that you inquire in advance about the feasibility, design, restrictions and any surcharges, etc. The same applies for snow loads which exceed 750 N/m^2 and for heavier wind loads.

3. Selecting roof supports

The tables in Section 4.2.0 can be referred to when choosing the roof supports. At the same time, please bear in mind that all guidelines, specifications, etc. also always apply for the roof overhang.
On the roof overhang, the dimension "L" extends from the centre of the wall connection to the centre of the crossbeam. This dimension is crucial for determining the steel to be used in the roof supports. In the standard construction, no steel is used in and around the roof support, in front of the crossbeam, i.e. towards the gutter.

4. Technical limitations

The roof overhang must measure at least 200 mm and must not exceed 1000 mm. At the same time, its depth must be at least 2/3 of the entire depth (see also the following pages).

5. Ordering the WGM Sottezza with WeiTop Terrazza

If the WGM Sottezza is ordered with the WeiTop Terrazza, the fixings are usually situated on the outer points of the outer supports (see product folder). On coupled or multi-section units, the fixings for the abutting joints are usually located in the middle of the underside of the roof supports (see product folder). If the fixings need to be positioned elsewhere, it is vital that this is mentioned at the time of order or that the customer provides us with details of the width of the casing.
In the case of a roof overhang, the WGM Sottezza is usually located between the wall connection and the crossbeam. The dimensions of the WGM Sottezza can be supplied on request. A bracket provision option is not available for the roof overhang option.

6. Ordering a conservatory awning with WeiTop Terrazza

If a conservatory awning is ordered with the WeiTop Terrazza, the dimensions of the conservatory awning can be derived from the WeiTop Terrazza order. The dimensions between centre lines, casing width and projection do not therefore need to be stated at the time of ordering the conservatory awning if no special requirements need to be taken into account.
A support bracket provision is not available for the roof overhang option.

7. Determining prices

The base price is calculated using the same method as for the WeiTop Terrazza "L", except that it depends on the total depth Td (see also following pages). To learn about surcharges for the roof overhang option, please consult the price list.

Last updated: 30.04.2009

Sectional View
Guttering

WeiTop Terrazza L
Roof Overhang Option

Standard:

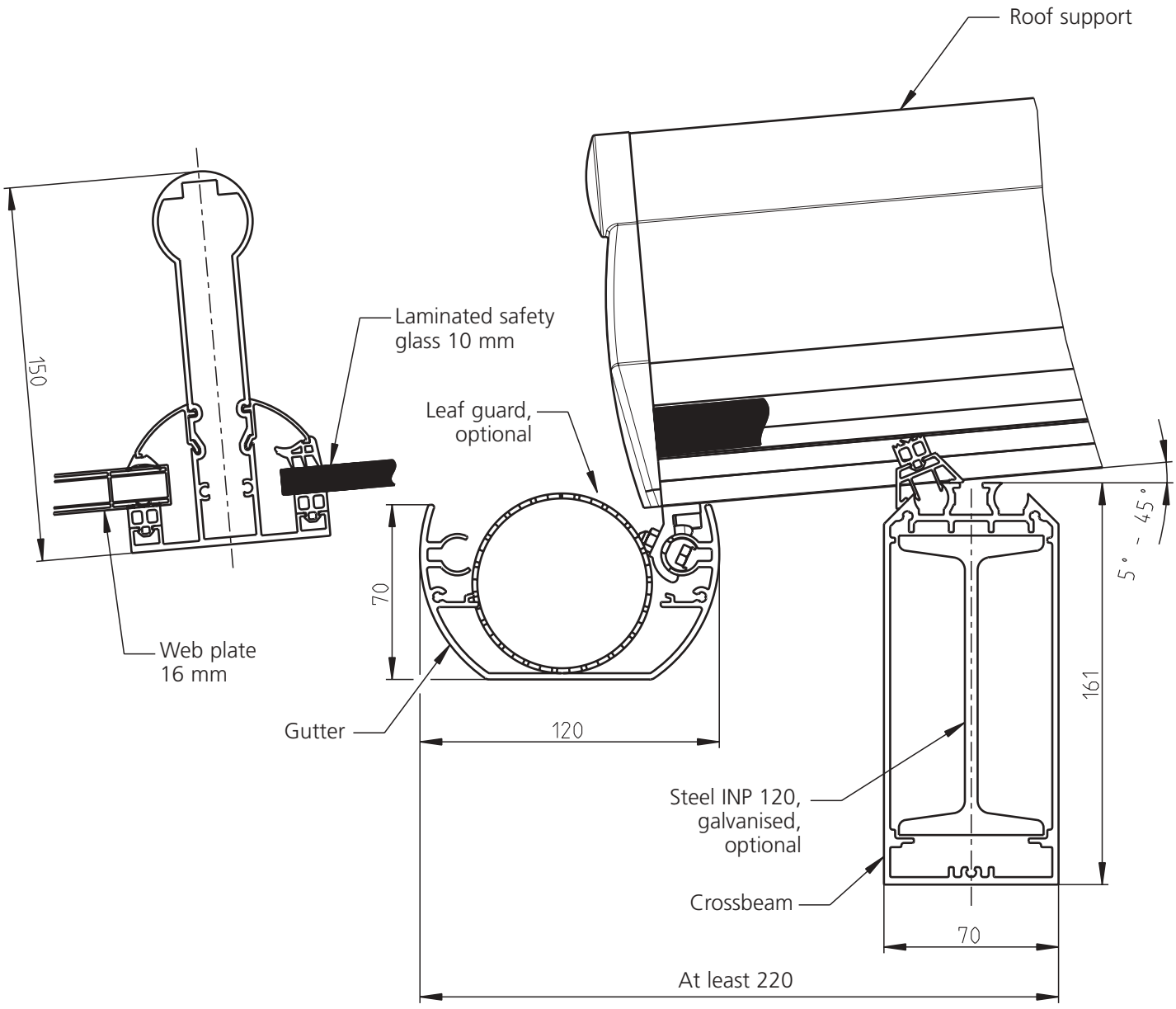
- Roof support 150
- Crossbeam
- Gutter

Optional against surcharge:

- Leaf guard
- Steel in crossbeam (1x or 2x)

Optional at reduced price:

- No gutter



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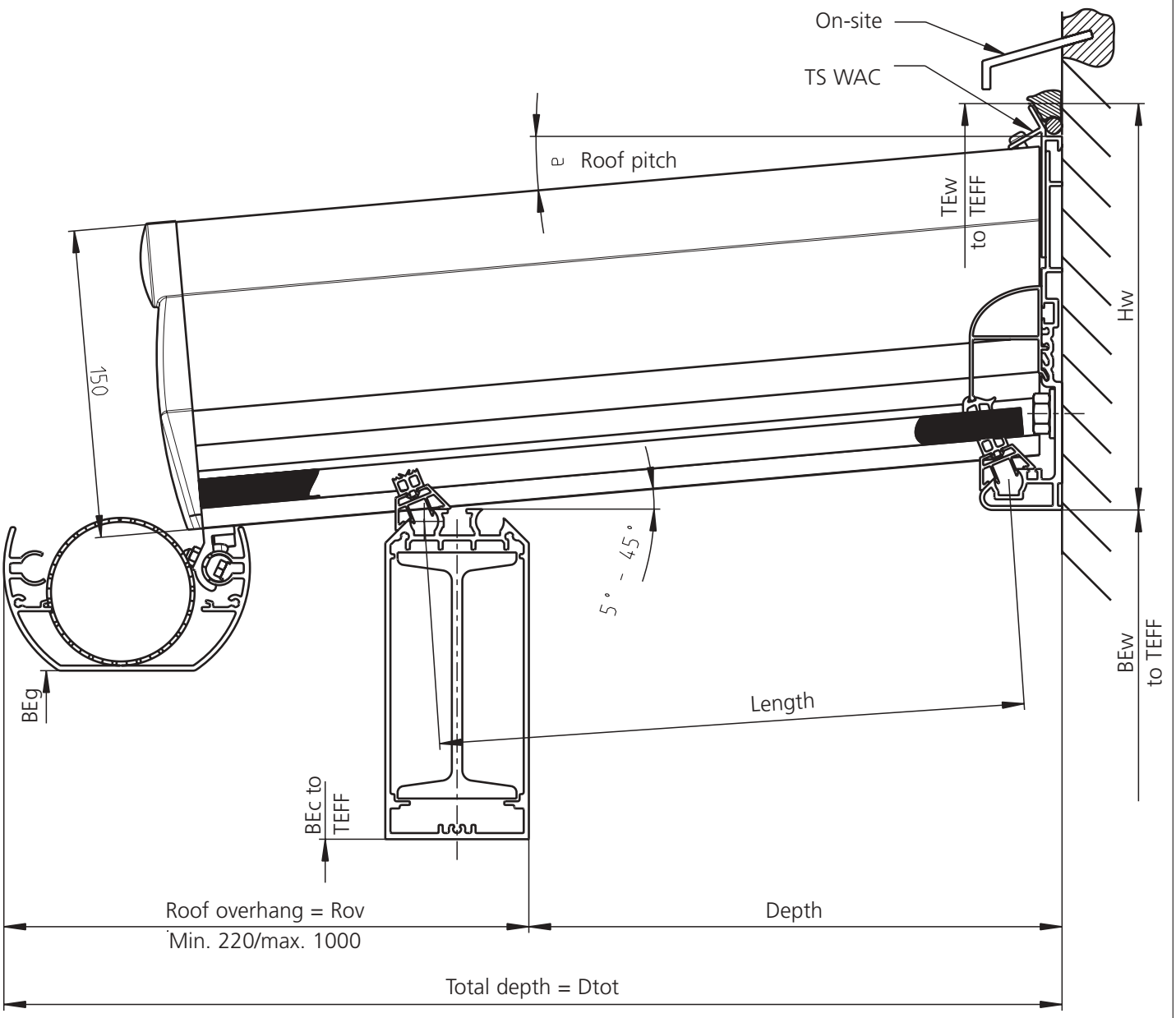
Height Details
Sectional View

WeiTop Terrazza L
Roof Overhang Option



Roof pitch up to	5°	10°	15°	20°	25°	30°	35°	40°	45°
Hw in mm	192	194	197	202	208	217	229	245	264
Top section of wall connection	74	74	74	74	74	74	74	110	110

The roof overhang is no more than 1/3 of the total depth.
Rov <= 1/3 x Dtot = Dtot/3

Legend:

TS WAC	= Top section of wall connection	TEFF	= Top edge of finished floor level
BEc	= Bottom edge of crossbeam	BEw	= Bottom edge of wall connection
Hw	= Height of wall connection	TEw	= Top edge of wall connection
Dtot	= Total depth	Rov	= Roof overhang

Last updated: 30.04.2009

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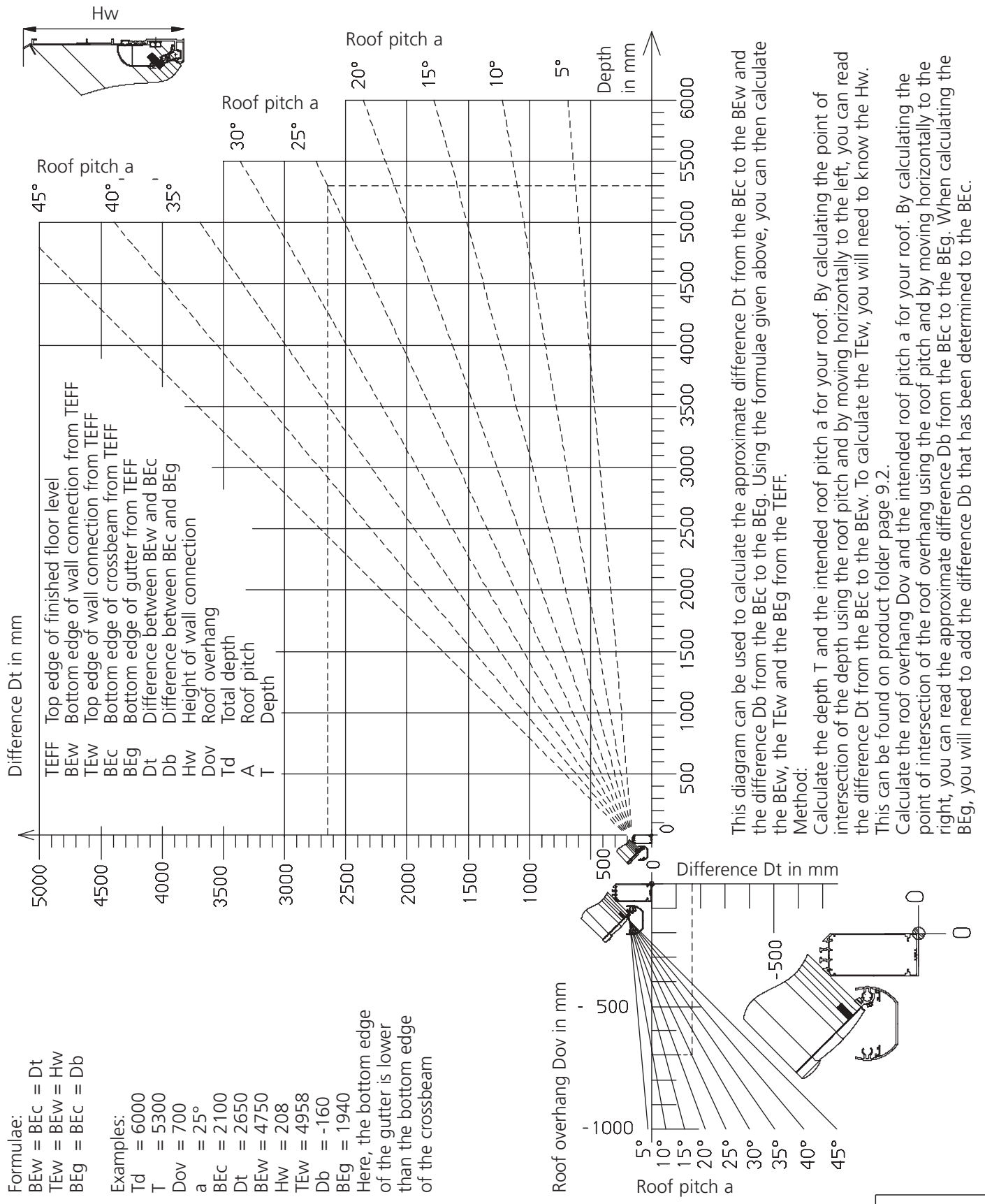
WeiTop Terrazza L
Roof Overhang Option



This diagram can be used to calculate the approximate difference Dt from the BEc to the BEw and the difference Db from the BEc to the BEg. Using the formulae given above, you can then calculate the BEw, the TEw and the BEg from the TEFF.
Method:
Calculate the depth T and the intended roof pitch a for your roof. By calculating the point of intersection of the depth using the roof pitch and by moving horizontally to the left, you can read the difference Dt from the BEc to the BEw. To calculate the TEw, you will need to know the Hw. This can be found on product folder page 9.2.
Calculate the roof overhang Dov and the intended roof pitch a for your roof. By calculating the point of intersection of the roof overhang using the roof pitch and by moving horizontally to the right, you can read the approximate difference Db from the BEc to the BEg. When calculating the BEg, you will need to add the difference Db that has been determined to the BEc.

Formulae:
BEw = BEc = Dt
TEw = BEw = Hw
BEg = BEc = Db

Examples:
Td = 6000
T = 5300
Dov = 700
a = 25°
BEc = 2100
Dt = 2650
BEw = 4750
Hw = 208
TEw = 4958
Db = -160
BEg = 1940
Here, the bottom edge of the gutter is lower than the bottom edge of the crossbeam

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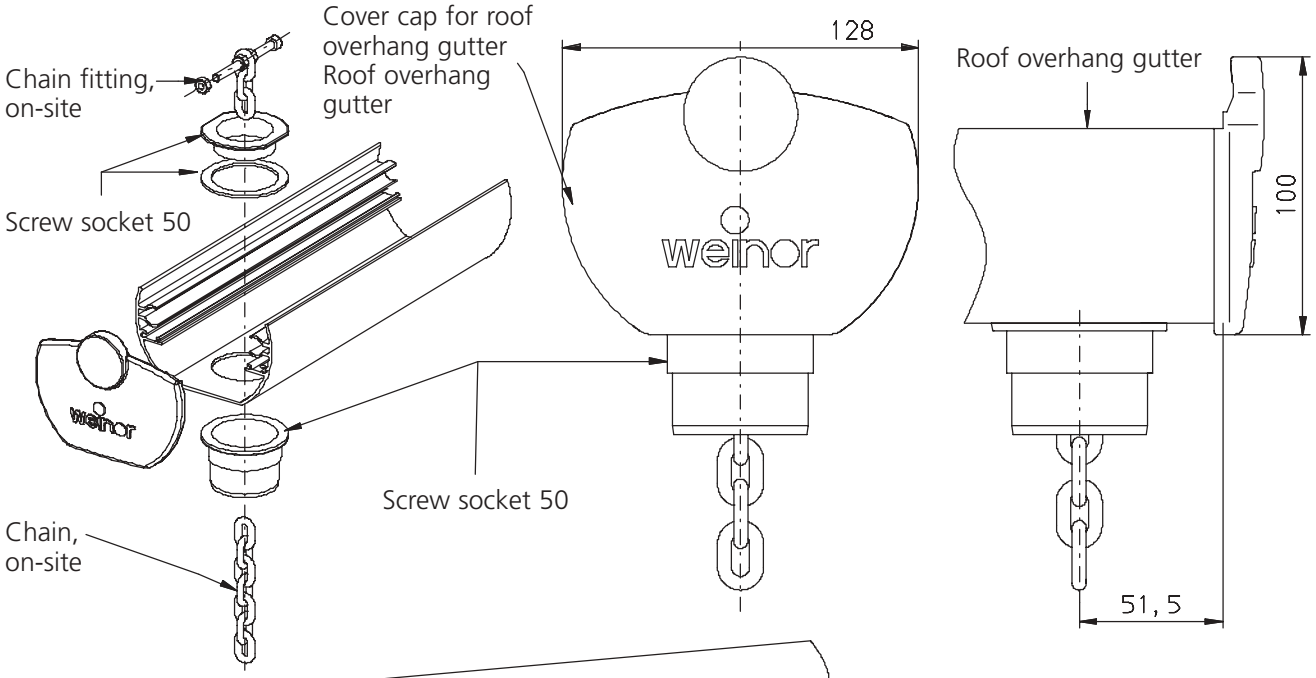
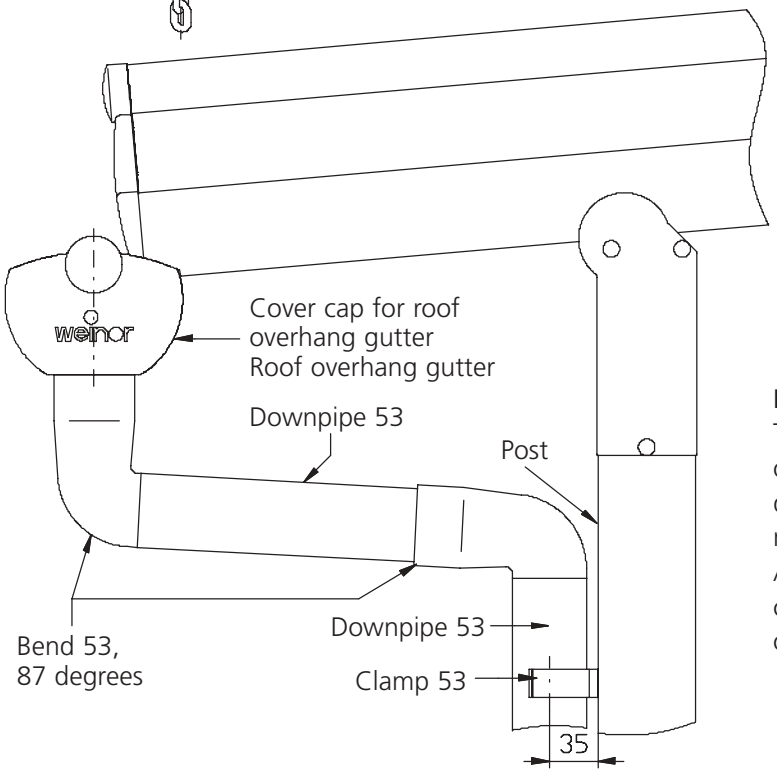
WeiTop Terrazza L
Roof Overhang Option

For each 20 m² of roof area, at least one drain must be provided for. This is automatically taken into account.
The side where the drain should be located must be stated at the time of order.
As a rule, the drain is situated 51.5 mm from the end of the gutter, facing the centre. For each drain, a size 50 screw socket is supplied automatically with the roof and must be fitted on-site.
To ensure controlled drainage, a chain (preferably made of plastic) can be installed inside the screw socket (see drawing).





Drain accessories
For explanations relating to the drain accessories, please consult page 8.12 in the product folder.
The "Drain through the post" and "Drain without posts" options are not available with roof overhangs.

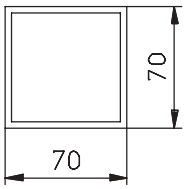
Drain on post (on-site)
The water drain can be completed on-site on the basis of the adjoining drawing. The required accessories must be ordered separately.
All cutting and trimming of pipes, cleaning and gluing work is performed on-site.

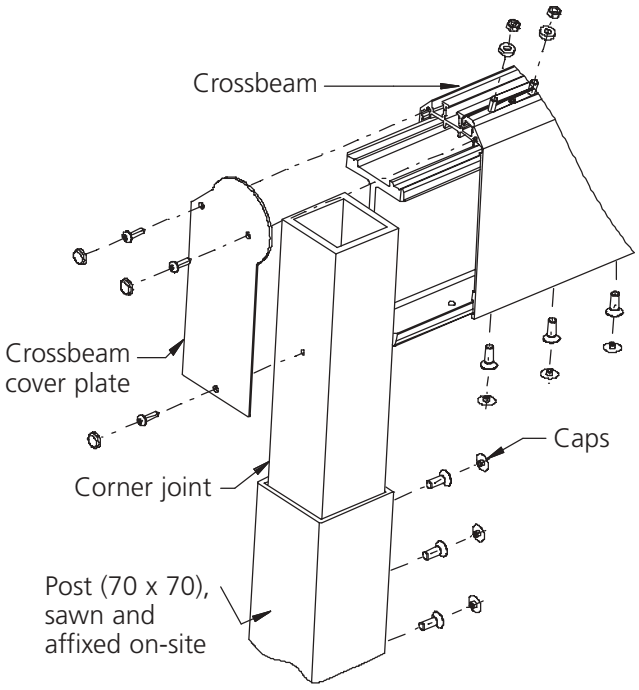
Last updated: 01.04.2004

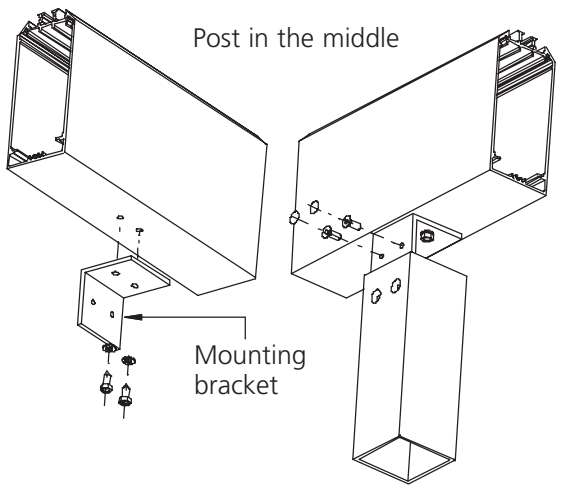
WeiTop Terrazza L
Roof Overhang Option

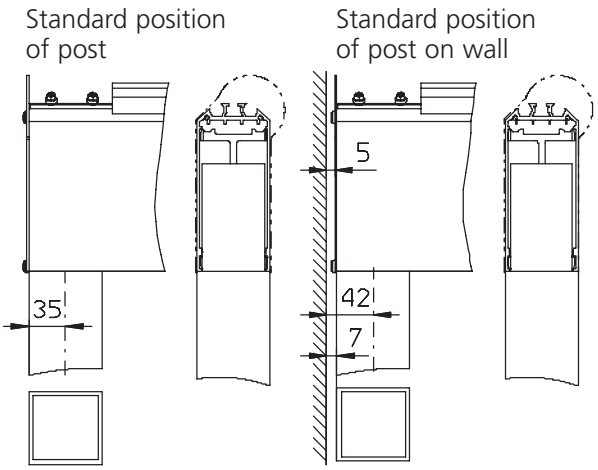
General explanations:

For details on the standard number of posts, please refer to the price list. Should fewer posts be required than usual, please ensure that you inquire in advance about the feasibility, design, restrictions and any surcharges, etc.
The same applies for snow loads which exceed 750 N/m^2 and for heavier wind loads.
The standard length of the post is 3 m to enable it to be set in concrete on-site. The free-supporting length of the post is limited to 2.4 m. This applies to a snow load of up to 1250 N/m^2. Shorter posts are used if the snow load is heavier.
The posts will need to be trimmed on-site before the post fixings can be used. Alternatively, the post can be cut to length in the factory prior to delivery.
A drain can be incorporated into the post.



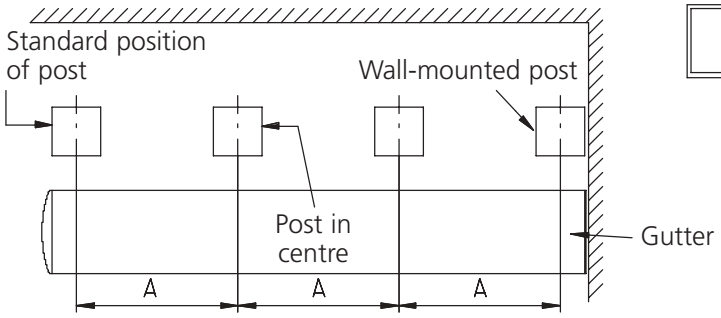






Position of posts:

- As a rule, the posts are always positioned at the outermost points.
- Any posts required in the centre are symmetrically divided as standard: see drawing below.
- The standard distance between the post and the wall is always 7 mm



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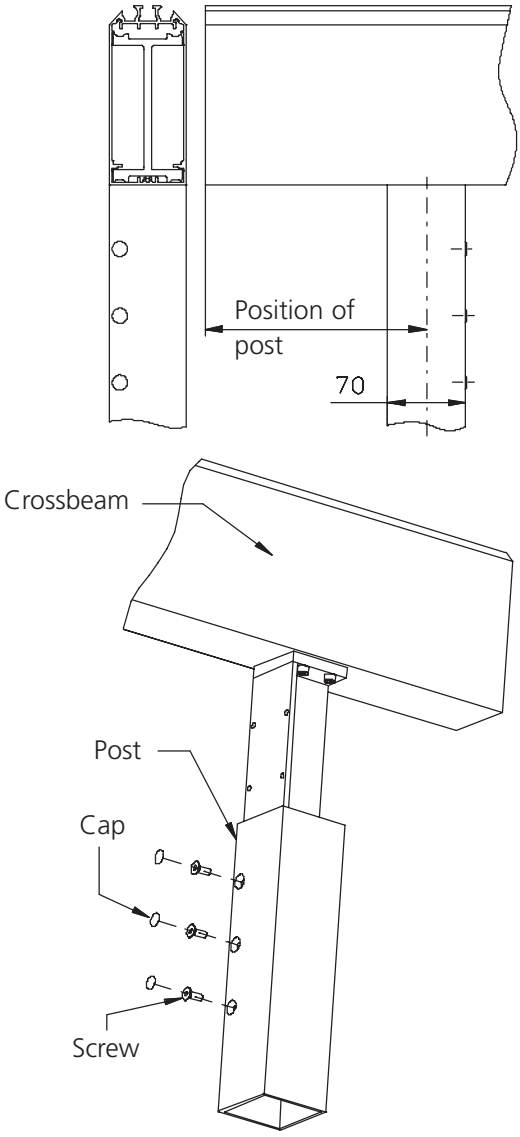
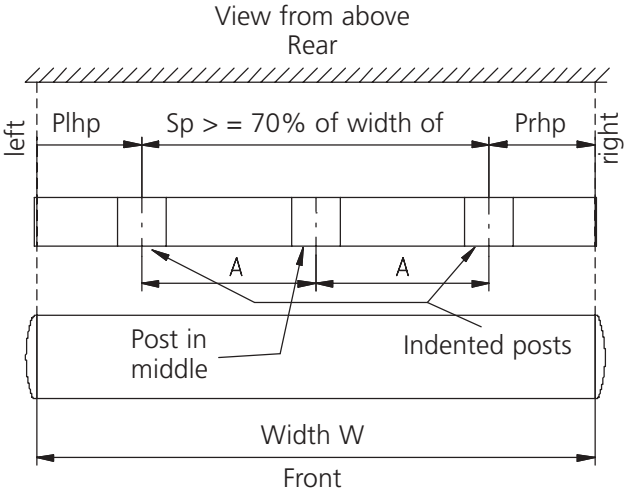
WeiTop Terrazza L
Roof Overhang Option

Option: "Side-indented post" below the crossbeam

- The post can be indented at the side. For this to be performed, the measurements of the Plhp and Prhp (end of the crossbeam to the centre of the post) must be stated.
- The standard size of the Plhp and Prhp is 35 mm. The Plhp and Prhp for side-indented posts can measure between 155 and 900 mm (applies to loads of 750 N/m^2) and 155 to 700 mm (applies to loads of 1250 N/m^2). For technical reasons, no intermediate sizes (>35 to <155 mm) are possible. Other Plhp and Prhp for heavier snow loads available on request.
- In the case of side indented posts, the spacing between the two outer posts Sp must be at least 70 % of the width W. The dimensions of Plhp and Prhp may be exceeded by 20 % in individual cases and together not exceed 30 % of the width W (see drawing).
- If the "side-indented post" option is chosen, the post with an aluminium base designed for 70x70 posts must be affixed to a concrete slab plate (at least B25) or the post must be set in concrete in a bucket foundation or other foundation (at least B25) (see also Page 8.16 in the product folder).
- Surcharges apply for side-indented posts (see price list).



- On side-indented posts, the centre posts are always divided symmetrically.

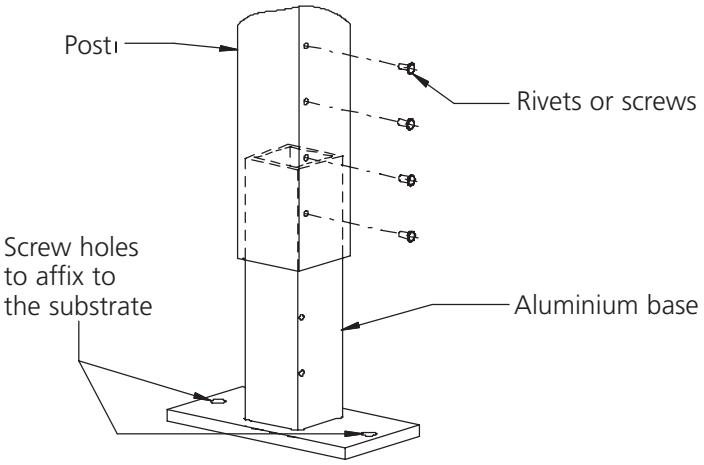


Legend:
Sp = Spacing between posts
Plhp = Position of left-hand post
Prhp = Position of right-hand post

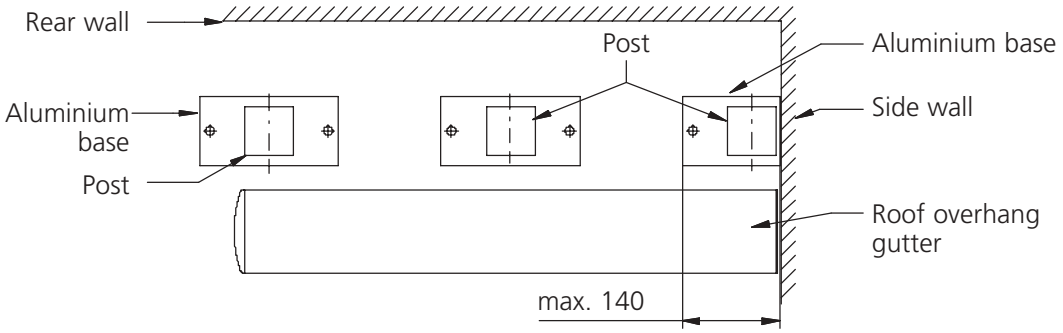
Last updated: 31.01.2007

WeiTop Terrazza L
Roof Overhang Option

The aluminium base must be screwed or riveted to the post. The number and size of fixings varies depending on the on-site conditions, the size of the roof and the snow and wind loads which occur there. For this reason, the required fixings are determined on-site.
Prior to being fitted, the post must be sawn to the required length on-site. If a cap is being used to cover the 70 x 70 post, the cap must be slid over the post before the post is inserted into the aluminium base.
The aluminium base is also fitted to the footing on-site. The fixings are selected on-site in accordance with the building conditions and statics requirements



The aluminium base for the 70 x 70 post must always be fitted so that it runs at right angles to the roof supports (see drawing) to ensure that the roof is more stable. When fitting to a side wall, the aluminium base must be trimmed on-site before fitting.



Last updated: 01.04.2004

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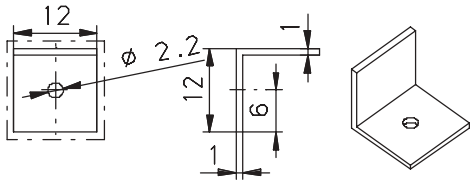
WeiTop Terrazza L
Roof Overhang Option

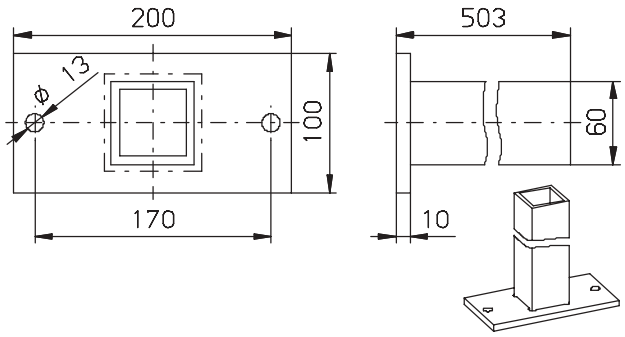
Various accessories are available for the post. Always ensure that the right means of fastening the post is selected to meet the on-site building conditions. Below you will find some guidelines to help you make the right choice.
The site foreman is responsible for selecting the right means of fastening the post.
The most secure way to fasten the post is to set it in concrete. Larger roofs with just two posts should always be set in concrete.
The following guidelines should be taken into account when deciding on the right means of fastening:

- roofs between two walls are not susceptible to side impact
- roofs with at least three posts are less susceptible again to side impact
- the longer the posts, the more crucial their fasteners become
- the edge distances for the screw fittings towards the end of the bucket foundation or the concrete slab must be taken into account (see Section 8.16).



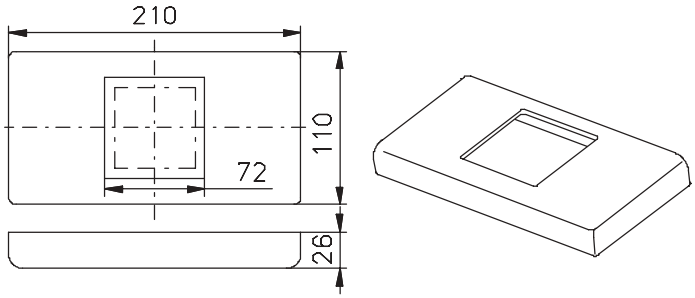
Angle bracket for post fastener:

- the angle bracket may only be inserted on the inside where the occurrence of wind and snow loads can be excluded.



Aluminium base for 70 x 70 post:

- for use on roofs with total depths (up to approx. 4 m for two posts; up to approx. 5 m for three posts; and up to approx. 6 m for four posts) and light wind and snow loads (max. 750 N/m^2)
- affix to the bucket foundation (at least B25) or a concrete slab (at least B25 and at least 15 cm thick)



Aluminium base cap 70 x 70:

- to mask the fixing screws on the 70 x 70 aluminium base

Last updated: 01.04.2004

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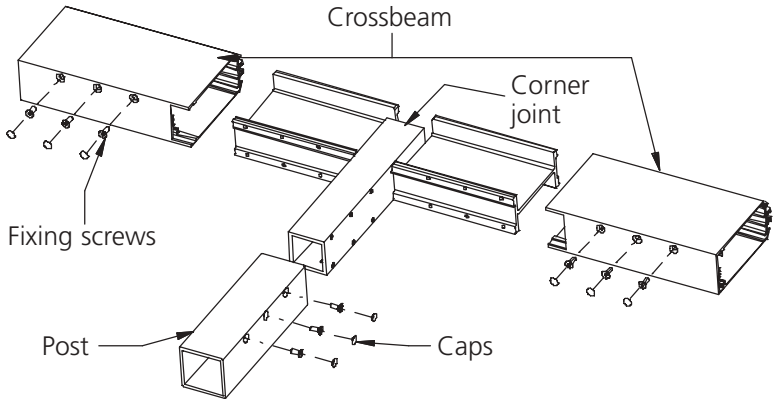
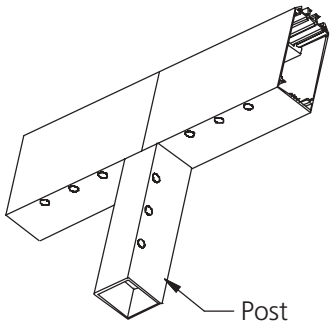
WeiTop Terrazza L
Roof Overhang Option

Roofs wider than approx. 6.8 m must be supplied in a minimum of two sections (2 or more sections next to each other). To enable this, coupling joints are defined for the various sections.

Crossbeam coupling

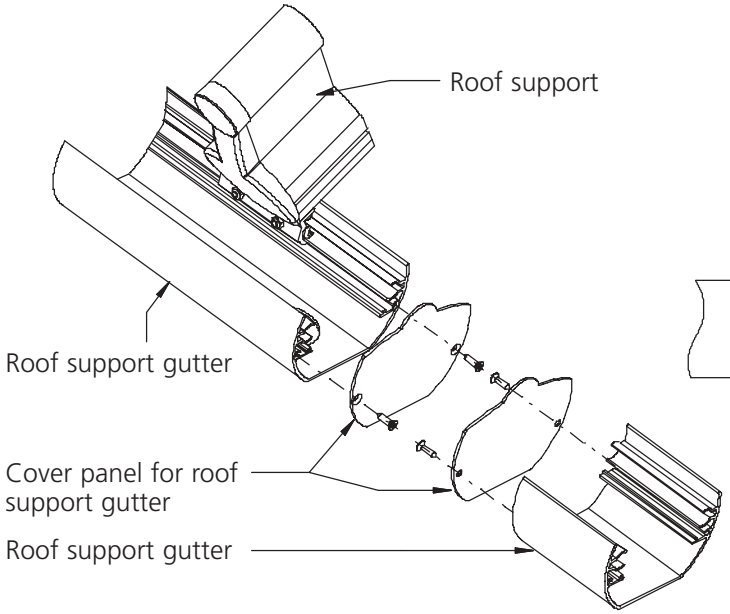
Use a T-shaped corner joint to connect two crossbeams together and to the post located underneath. The parts are screwed together on-site.
The coupling joint for the crossbeams is determined based on the statics requirements. Special requirements must be made known at the time of order so that their feasibility can be checked. In the vast majority of cases, all special requirements will incur a surcharge.

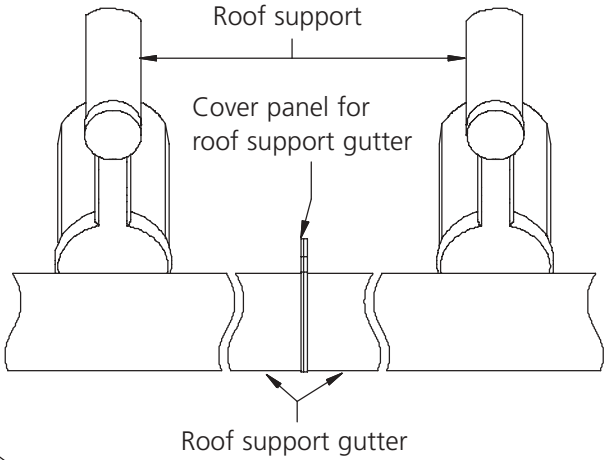




Gutter coupling

A separate gutter with separate drain is supplied for each section of the unit. The number of drains required per section of unit depends on the roof area to be connected. Cover panels are used at the abutting joint between two gutters. The abutting joint on the gutters must always be located between the roof supports.





Wall connection coupling

A separate wall connection is supplied for each section of the unit. The wall connections are affixed directly next to each other along the on-site wall.

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WeiTop Terrazza L
Roof Overhang Option

The following pages contain information on various section cross-sections relating to:

- the moments of inertia in X- and Y-direction in cm^4
- the resisting torque in X- and Y-direction in cm^3
- as well as the weight in kg/m

Details on the roof support sections can be found on page 4.3.2 of the product folder.

All aluminium sections are composed of the alloy AlMgSi0.5 in F22 quality. The steel sections are made of galvanised S235JR (St37).

Should you require further details, e.g. the position of the centre of mass, or anything else, please contact weinor.

Guidelines on selecting the roof supports can be found on pages 4.2.0 to 4.2.8 and page 9.0 of the product folder.

Last updated: 30.04.2009

Values for Calculating Statics
Crossbeam

WeiTop Terrazza L
Roof Overhang Option

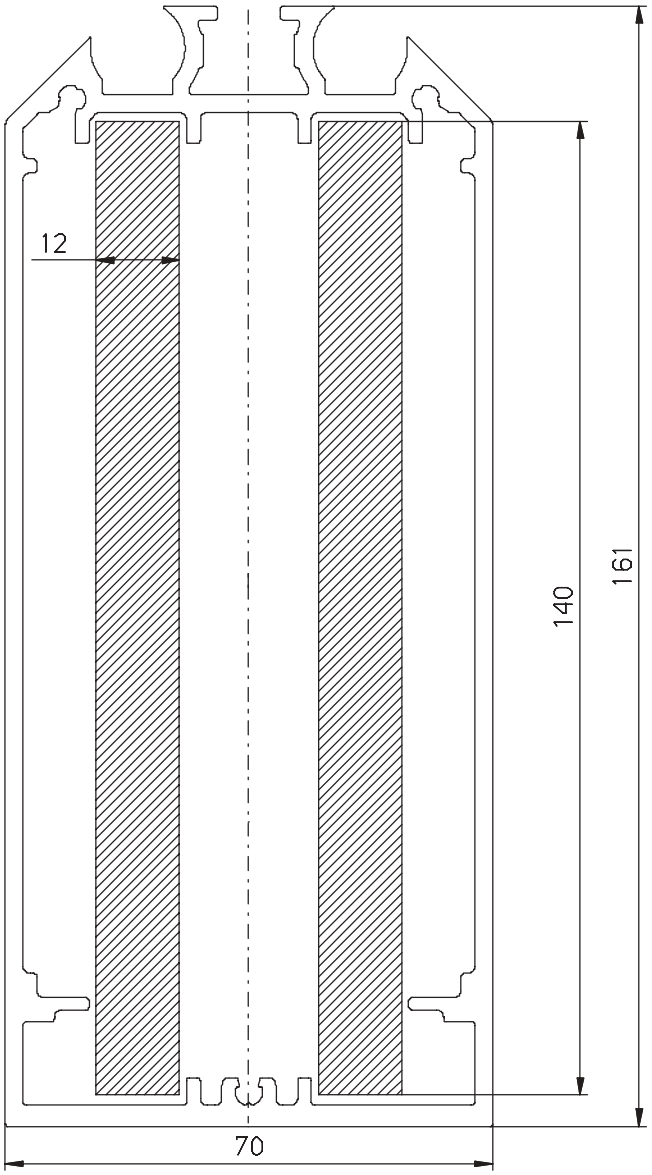
Crossbeam without steel, with 1x I-steel or 2x steel 140 x 12

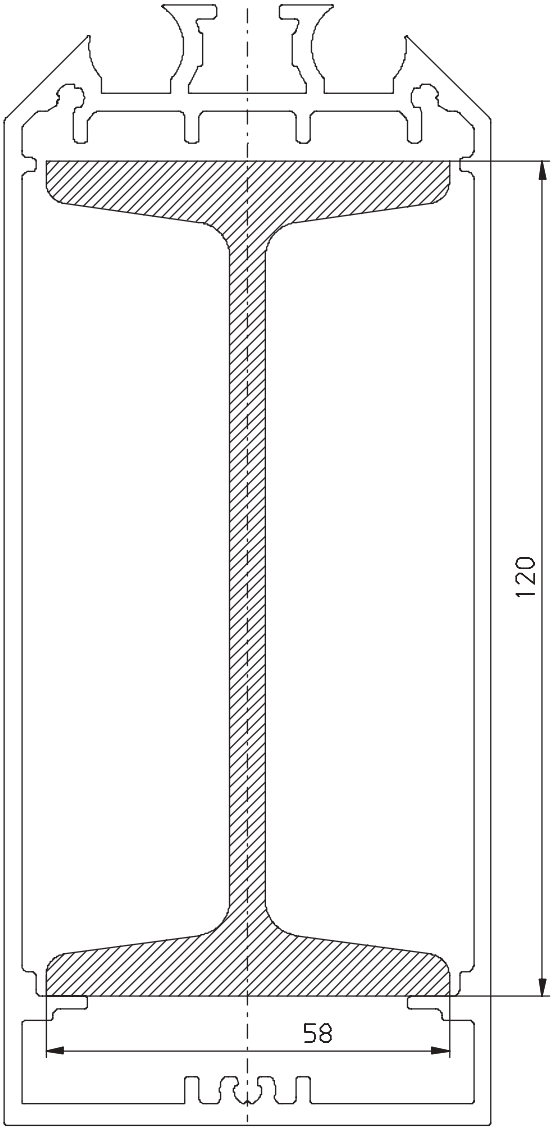
Ix crossbeam	In cm^4: 471
Iy crossbeam	In cm^4: 108
Ix 1 steel section 140 x 12	In cm^4: 274
Iy 1 steel section 140 x 12	In cm^4: 2
Ix 1 I-steel 120 x 58	In cm^4: 327
Iy 1 I-steel 120 x 58	In cm^4: 21

Wx crossbeam	In cm^3: 57.04
Wy crossbeam	In cm^3: 30.96
Wx 1 steel section 140 x 12	In cm^3: 39.10
Wy 1 steel section 140 x 12	In cm^3: 3.30
Wx 1 I-steel 120 x 58	In cm^3: 54.50
Wy 1 I-steel 120 x 58	In cm^3: 7.20

Weight of crossbeam	In kg/m: 3.7
Weight of 1 I-steel section 120 x 58	In kg/m: 11.1
Weight of 1 steel section 140 x 12	In kg/m: 13.1
Weight of crossbeam + 1x I-steel	In kg/m: 14.8
Weight of crossbeam + 2x steel	In kg/m: 29.9

The steel used is galvanised and the front sides rust protected.





Last updated: 01.04.2004

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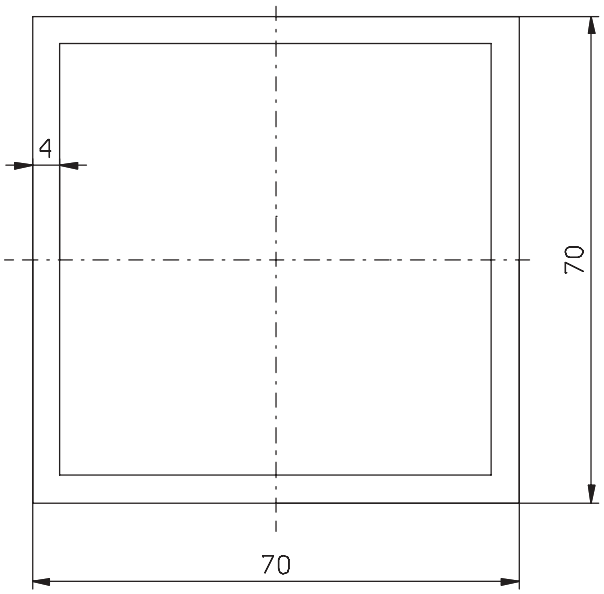
Roof Overhang Option

Posts

Ix post In cm^4: 76.9
Iy post In cm^4: 76.9

Wx post In cm^3: 22
Wy post In cm^3: 22

Weight of postIn kg/m : 2.85



WeiTop Terrazza L
Roof Overhang Option

1. General Comments:
The values shown in the tables and diagrams are guidelines for calculating the crossbeam to be used and are used in the pre-calculation and calculation during the planning stage. The values given are only valid under the stated conditions. The dimensions and fitting of the posts, post support brackets, and the use of corner joints, stays, etc. must be checked and requested for each individual job.
All calculations have been made on the basis that the posts are located in their standard position, i.e. at the outermost points. Heavier snow loads or larger roof widths available on request and subject to other fundamental conditions.
Whenever the term 'depth' is used below, it refers to the total depth, i.e. including the roof overhang.

2. Legend:
CB = Crossbeam
WG = Conservatory/roofing
RS = Roof support
f = Degree of bow

3. Weights:
The weight of the crossbeam section, including any reinforcements that may be added, is given below. Parts attached to the crossbeam have not been included in the weight. Views of the various crossbeams can be found in the product folder.

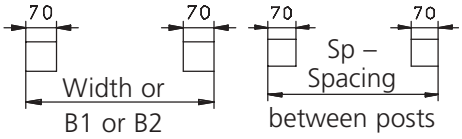
CB without steel
3.7 kg/m

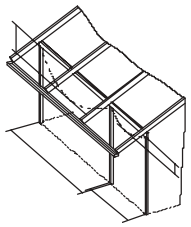
CB with steel
1x INP 120
14.8 kg/m

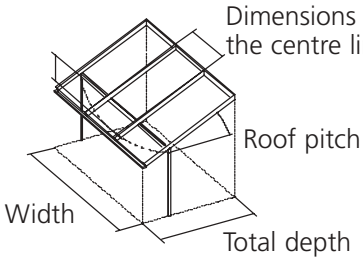
CB with steel
2x 140 x 12
29,9 kg/m

Please note that, depending on the type and length, the crossbeam may weigh up to 210 kg.
Please ensure that you have a suitable workforce or lifting gear available at the place of installation.

4. Dimensions:
The figures below show the dimensions used in the tables and diagrams below.







5. Reading values from the diagrams and tables:
The diagrams and tables found on the following pages contain the maximum possible width (incl. W1) for a given depth, without any additional posts. These can be referred to in order to read the width of the crossbeam being used.
Example: Assuming that a depth of 4 m is given and a crossbeam (CB) without steel should be used, the maximum width and/or the maximum spacing between two posts (outside of post to outside of post) should be calculated.

- Determining the values using the diagram
  1. Look for the required depth on the X-axis (4 m).
  2. Move vertically upwards as far as the point where the respective CB characteristic intersects (CB without steel).
  3. Once at the point of intersection, move horizontally to the left to read the corresponding width (2.4 m).
- Determining the values using the table
  1. Find the required depth in the uppermost row of the table (4 m).
  2. Now find the required crossbeam type in the left-hand table column (CB without steel).
  3. At the point where the selected column and the row intersect you will find the corresponding width (2.4 m).

The determined width of 2.4 m indicates how far the two posts may be spaced apart (Sp = outside of post to outside of post). Based on this information, it is clear that, under the given conditions, a roof may not exceed a width of 2.4 m if no additional posts are used. If the roof is wider, the distance between the posts (W1 or W2, see sketch above) may not exceed 2.4 m.

Below are other examples of values which can also be derived from the diagrams and tables:

Known		Needed
Requested roof width without centre post	Depth	CB type
Requested roof width without centre post	GU type	Depth

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Table – Crossbeam
Snow Load 750 N/m²

WeiTop Terrazza L
Roof Overhang Option

1. Starting data:

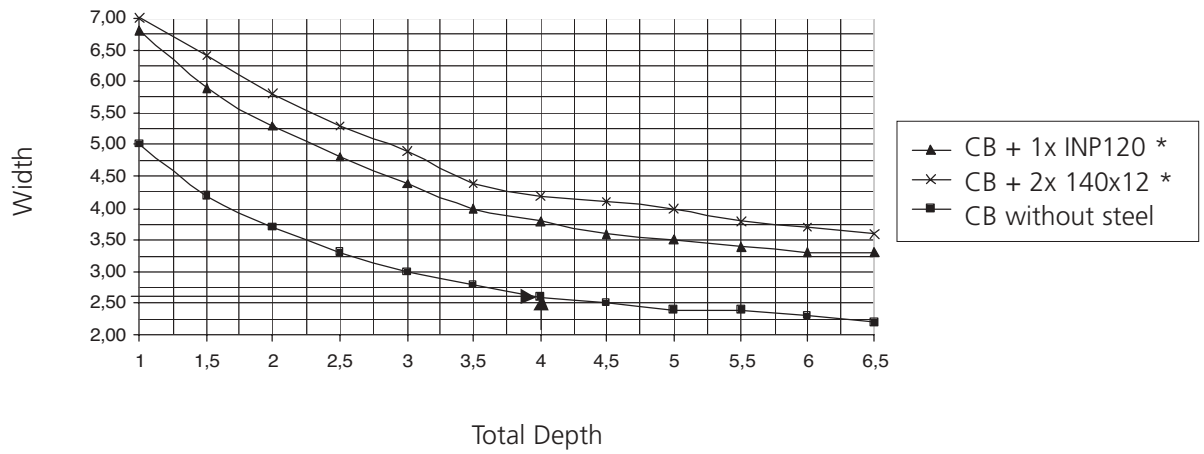
Snow load:	750	N/m²	acc. to DIN 1055 Part 5	Min distance between centre lines:	70 cm
Wind load:	500	N/m²	acc. to DIN 1055 Part 4 and 5; up to 8 m elevation	Max. weight RS:	170 N/m
Glass load:	250	N/m²	Equivalent to 10 mm glass	Max. CB bow f:	L/200 mm
Roof pitch:	5 to 45	degrees			

2. Table:

Depth in m / CB Type	max. width in m											
	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
CB without steel	5.00	4.20	3.70	3.30	3.00	2.80	2.60	2.50	2.40	2.40	2.30	2.20
CB + 1xINPx120*	6.80	5.90	5.30	4.80	4.40	4.00	3.80	3.60	3.50	3.40	3.30	3.30
CB + 2x140x12*	7.00	6.40	5.80	5.30	4.90	4.40	4.20	4.10	4.00	3.80	3.70	3.60

3. Diagram:

Width depending on total depth



Legend:
RS = Roof support
CB = Crossbeam

*on request and only possible if certain conditions are satisfied

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Table – Crossbeam
Snow Load 1250 N/m²

WeiTop Terrazza L
Roof Overhang Option

1. Starting data:

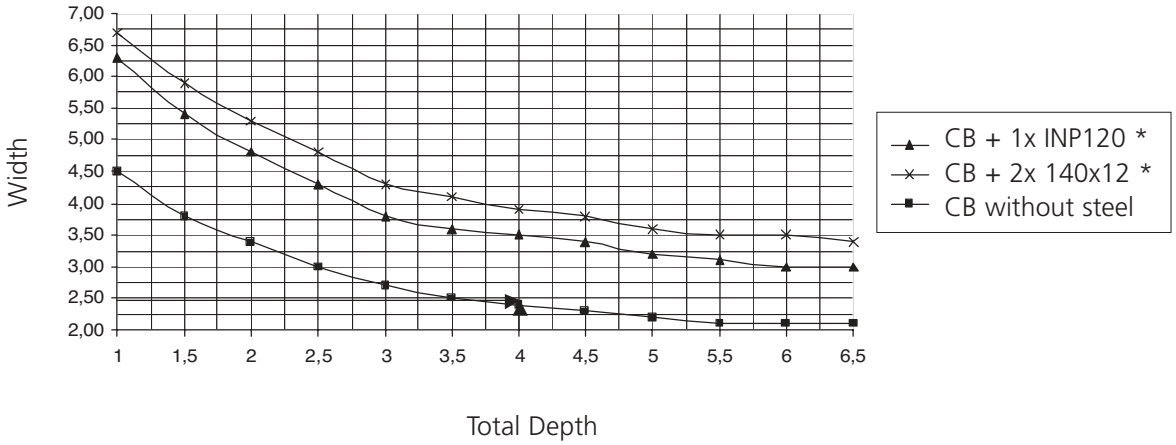
Snow load:	1250 N/m²	acc. to DIN 1055 Part 5	Min distance between centre lines:	70	cm
Wind load:	500 N/m²	acc. to DIN 1055 Part 4 and 5; up to 8 m elevation	Max. weight RS:	170	N/m
Glass load:	250 N/m²	Equivalent to 10 mm glass	Max. CB bow f:	L/200	mm
Roof pitch:	5 to 45 degrees				

2. Table:

Depth in m / CB Type	max. width in m											
	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
CB without steel	4.50	3.80	3.40	3.00	2.70	2.50	2.40	2.30	2.20	2.10	2.10	2.10
CB + 1x INP120 *	6.30	5.40	4.80	4.30	3.80	3.60	3.50	3.40	3.20	3.10	3.00	3.00
CB + 2x 140x12 *	6.70	5.90	5.30	4.80	4.30	4.10	3.90	3.80	3.60	3.50	3.50	3.40

3. Diagram:

Width depending on total depth



Legend:
RS = Roof support
CB = Crossbeam

*on request and only possible if certain conditions are satisfied

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WeiTop Terrazza L
Roof Overhang Option

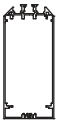
1. General Comments:
The values shown in the tables are guidelines for calculating the number of posts to be used. They are applied in the pre-calculation and calculation during the planning stage. The values given are only valid under the stated conditions. The dimensions and fitting of the posts and post support brackets must be checked and requested for each individual job.
For all calculations, it is assumed that the posts are located in their standard position, i.e. at the outermost points.
If more than two posts are used, they must be arranged symmetrically.
Heavier snow loads or larger roof widths in other conditions available on request.
The values shown in the table result from the diagrams in Section 9.8.
For snow loads heavier than 750 N/m^2, distances of 1 m between the centre lines are not always possible on greater depths. In certain cases, only a distance of 0.7 m between the centre lines is possible.
For snow loads above 750 N/m^2, always check to see if the roof covering is permissible for the envisaged standard distances between the centre lines.
The tables shown do not indicate whether large depths and obtuse roof pitches are feasible.
Special stipulations apply every time steel is used in the crossbeam, e.g.:
- Roof must be located between two walls
- Posts must be restrained on-site

For snow loads over 1250 N/m^2, the maximum length of the post must also be taken into account on large depths.
The greater the snow load, the smaller the maximum depths and spacing between the posts.
Whenever the term 'depth' is used below, it refers to the total depth, i.e. including the roof overhang.

2. Legend:
CB = Crossbeam

3. Possible crossbeam:
The weight of the crossbeam section, including any reinforcements that may be added, is given below. Parts attached to the crossbeam have not been included in the weight. Views of the various crossbeams can be found in the product folder.

CB without steel
3.7 kg/m

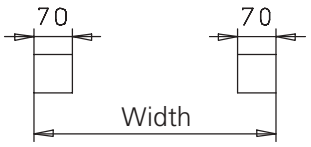


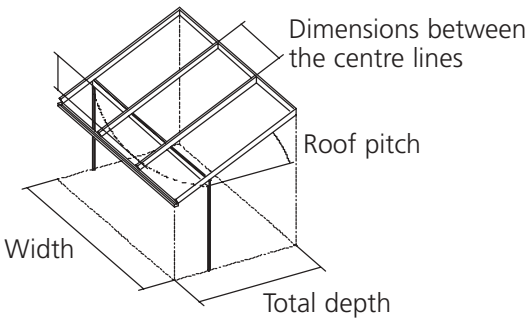
CB with steel
1x INP 120
14.8 kg/m

CB with steel
2x 140x12
29.9 KG/M

Please note that, depending on the type and length, the crossbeam may weigh up to 210 kg.
Please ensure that you have a suitable workforce or lifting gear available at the place of installation.

4. Dimensions:
The figures below show the dimensions used in the tables and diagrams below.





5. Reading values from the diagrams and tables:
The tables found on the following pages relate to a certain depth and width, and the required number of posts.
You can therefore read off the required number of posts that match the width, depth and crossbeam used.
Example: for a depth of 4 m and using a crossbeam (CB) without steel, the task is to calculate the maximum width when using two posts and assuming a snow load of 750 N/m^2.
- Determining the values using the table
  1. Find the corresponding page (CB without steel) and choose the corresponding table (snow load 750 N/m^2).
  2. Find the required depth (4 m) in the first column.
  3. Move along the corresponding row to the right until you find the matching number of posts (2).
  4. Now move up the corresponding column and read off the largest possible depth (2.5 m).

More exact values can be obtained from the tables and diagrams in Section 9.8.

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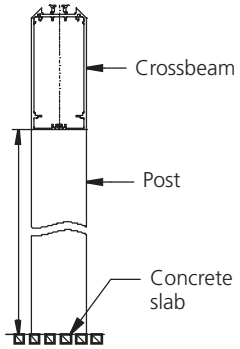
Roof Overhang Option

Number of posts for
crossbeam without steel

- Standard position of posts: outermost points; centre posts divided symmetrically
- Maximum length of post: 2.4 m

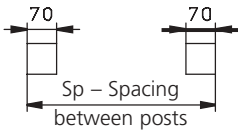
Snow load 750 N/m² — 2 posts | 3 posts | 4 posts

Depth in mm	Width in mm 2-section 2000	3-section 2500	3-section 3000	4-section 3500	4-section 4000	5-section 4500	5-section 5000	6-section 5500	6-section 6000	Spacing betw. posts, Sp. max. in mm
1000	2	2	2	2	2	2	2	3	3	5000
1500	2	2	2	2	2	3	3	3	3	4200
2000	2	2	2	2	3	3	3	3	3	3700
2500	2	2	2	3	3	3	3	3	3	3300
3000	2	2	2	3	3	3	3	3	4	3000
3500	2	2	3	3	3	3	3	3	4	2800
4000	2	2	3	3	3	3	3	4	4	2600
4500	2	2	3	3	3	3	4	4	4	2500
5000	2	3	3	3	3	3	4	4	4	2400
5500	2	3	3	3	3	3	4	4	4	2400
6000	2	3	3	3	3	3	4	4	4	2300



Snow load 750 N/m² — 3 posts | 4 posts | 5 posts | 6 posts

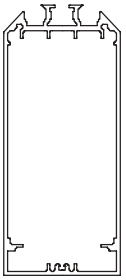
Depth in mm	Width in mm 7-section 6500	7-section 7000	8-section 7500	8-section 8000	9-section 8500	9-section 9000	10-section 9500	10-section 10000	11-section 10500	Spacing betw. posts, Sp. max. in mm
1000	3	3	3	3	3	3	3	4	4	5000
1500	3	3	3	3	4	4	4	4	4	4200
2000	3	3	4	4	4	4	4	4	4	3700
2500	3	4	4	4	4	4	4	5	5	3300
3000	4	4	4	4	4	5	5	5	5	3000
3500	4	4	4	4	5	5	5	5	5	2800
4000	4	4	4	5	5	5	5	5	6	2600
4500	4	4	5	5	5	5	5	6	6	2500
5000	4	4	5	5	5	5	6	6	6	2400
5500	4	4	5	5	5	5	6	6	6	2400
6000	4	5	5	5	5	6	6	6	6	2300



Snow load 1250 N/m² — 2 posts | 3 posts | 4 posts

Depth in mm	Width in mm 2000	2500	3000	3500	4000	4500	5000	5500	6000	Spacing betw. posts, Sp. max. in mm
1000	2	2	2	2	2	2	3	3	3	4500
1500	2	2	2	2	3	3	3	3	3	3800
2000	2	2	2	3	3	3	3	3	3	3400
2500	2	2	2	3	3	3	3	3	4	3000
3000	2	2	3	3	3	3	3	4	4	2700
3500	2	2	3	3	3	3	4	4	4	2500
4000	2	3	3	3	3	3	4	4	4	2400
4500	2	3	3	3	3	3	4	4	4	2300
5000	2	3	3	3	3	4	4	4	4	2200
5500	2	3	3	3	3	4	4	4	4	2100
6000	2	3	3	3	3	4	4	4	4	2100

No steel in crossbeam



Snow load 1250 N/m² — 3 posts | 4 posts | 5 posts | 6 posts | 7 posts

Depth in mm	Width in mm 6500	7000	7500	8000	8500	9000	9500	10000	10500	Spacing betw. posts, Sp. max. in mm
1000	3	3	3	3	3	4	4	4	4	4500
1500	3	3	3	4	4	4	4	4	4	3800
2000	4	4	4	4	4	4	4	4	5	3400
2500	4	4	4	4	4	5	5	5	5	3000
3000	4	4	4	5	5	5	5	5	5	2700
3500	4	4	5	5	5	5	6	6	6	2500
4000	4	4	5	5	5	5	6	6	6	2400
4500	4	5	5	5	5	6	6	6	6	2300
5000	4	5	5	5	5	6	6	6	6	2200
5500	5	5	5	5	6	6	6	6	7	2100
6000	5	5	5	5	6	6	6	6	7	2100

Last updated: 01.04.2004

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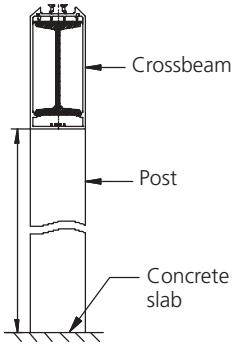
WeiTop Terrazza L
Roof Overhang Option

Number of posts for
crossbeam with 1x steel INP 120

- Standard position of posts: outermost points; centre posts divided symmetrically
- Maximum length of post: 2.4 m

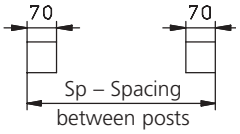
Snow load 750 N/m² — 2 posts — 4 posts

Depth in mm	Width in mm 2-section 2000	3-section 2500	3-section 3000	4-section 3500	4-section 4000	5-section 4500	5-section 5000	6-section 5500	6-section 6000	Spacing betw. posts, Sp. max. in mm
1000	2	2	2	2	2	2	2	2	2	6800
1500	2	2	2	2	2	2	2	2	3	5900
2000	2	2	2	2	2	2	2	3	3	5300
2500	2	2	2	2	2	2	3	3	3	4800
3000	2	2	2	2	2	3	3	3	3	4400
3500	2	2	2	2	2	3	3	3	3	4000
4000	2	2	2	2	3	3	3	3	3	3800
4500	2	2	2	2	3	3	3	3	3	3600
5000	2	2	2	2	3	3	3	3	3	3500
5500	2	2	2	3	3	3	3	3	3	3400
6000	2	2	2	3	3	3	3	3	3	3300



Snow load 750 N/m² — 2 posts — 3 posts — 4 posts — 5 posts

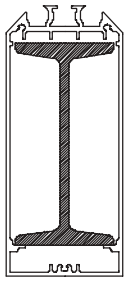
Depth in mm	Width in mm 7-section 6500	7-section 7000	8-section 7500	8-section 8000	9-section 8500	9-section 9000	10-section 9500	10-section 10000	11-section 10500	Spacing betw. posts, Sp. max. in mm
1000	2	3	3	3	3	3	3	3	3	6800
1500	3	3	3	3	3	3	3	3	3	5900
2000	3	3	3	3	3	3	3	3	3	5300
2500	3	3	3	3	3	3	3	4	4	4800
3000	3	3	3	3	3	4	4	4	4	4400
3500	3	3	3	4	4	4	4	4	4	4000
4000	3	3	3	4	4	4	4	4	4	3800
4500	3	3	4	4	4	4	4	4	4	3600
5000	3	4	4	4	4	4	4	4	5	3500
5500	3	4	4	4	4	4	4	4	5	3400
6000	3	4	4	4	4	4	4	5	5	3300



Snow load 1250 N/m² — 2 posts — 3 posts — 4 posts

Depth in mm	Width in mm 2000	2500	3000	3500	4000	4500	5000	5500	6000	Spacing betw. posts, Sp. max. in mm
1000	2	2	2	2	2	2	2	2	2	6300
1500	2	2	2	2	2	2	2	3	3	5400
2000	2	2	2	2	2	2	3	3	3	4800
2500	2	2	2	2	2	3	3	3	3	4300
3000	2	2	2	2	3	3	3	3	3	3800
3500	2	2	2	2	3	3	3	3	3	3600
4000	2	2	2	2	3	3	3	3	3	3500
4500	2	2	2	3	3	3	3	3	3	3400
5000	2	2	2	3	3	3	3	3	3	3200
5500	2	2	2	3	3	3	3	3	3	3100
6000	2	2	2	3	3	3	3	3	4	3000

1x steel in crossbeam



Snow load 1250 N/m² — 3 posts — 4 posts — 5 posts

Depth in mm	Width in mm 6500	7000	7500	8000	8500	9000	9500	10000	10500	Spacing betw. posts, Sp. max. in mm
1000	3	3	3	3	3	3	3	3	3	6300
1500	3	3	3	3	3	3	3	3	3	5400
2000	3	3	3	3	3	3	3	4	4	4800
2500	3	3	3	3	3	4	4	4	4	4300
3000	3	3	3	4	4	4	4	4	4	3800
3500	3	3	4	4	4	4	4	4	4	3600
4000	3	4	4	4	4	4	4	4	5	3500
4500	3	4	4	4	4	4	4	4	5	3400
5000	4	4	4	4	4	4	5	5	5	3200
5500	4	4	4	4	4	4	5	5	5	3100
6000	4	4	4	4	4	5	5	5	5	3000

Last updated: 01.04.2004

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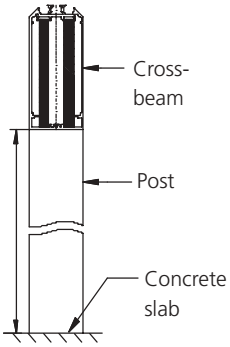
WeiTop Terrazza L
Roof Overhang Option

Number of posts for
crossbeam with 2x steel 140 x 12

- Standard position of posts: outermost points; centre posts divided symmetrically
- Maximum length of post: 2.4 m

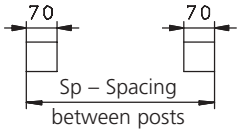
Snow load 750 N/m²

Depth in mm	Width in mm 2-section 2000	3-section 2500	3-section 3000	4-section 3500	4-section 4000	5-section 4500	5-section 5000	6-section 5500	6-section 6000	Spacing betw. posts, Sp. max. in mm
	2 posts								3 posts	
1000	2	2	2	2	2	2	2	2	2	7000
1500	2	2	2	2	2	2	2	2	2	6400
2000	2	2	2	2	2	2	2	2	3	5800
2500	2	2	2	2	2	2	2	3	3	5300
3000	2	2	2	2	2	2	3	3	3	4900
3500	2	2	2	2	2	3	3	3	3	4400
4000	2	2	2	2	2	3	3	3	3	4200
4500	2	2	2	2	2	3	3	3	3	4100
5000	2	2	2	2	2	3	3	3	3	4000
5500	2	2	2	2	3	3	3	3	3	3800
6000	2	2	2	2	3	3	3	3	3	3700



Snow load 750 N/m²

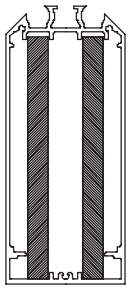
Depth in mm	Width in mm 7-section 6500	7-section 7000	8-section 7500	8-section 8000	9-section 8500	9-section 9000	10-section 9500	10-section 10000	11-section 10500	Spacing betw. posts, Sp. max. in mm
	2 posts			3 posts					4 posts	
1000	2	3	3	3	3	3	3	3	3	7000
1500	3	3	3	3	3	3	3	3	3	6400
2000	3	3	3	3	3	3	3	3	3	5800
2500	3	3	3	3	3	3	3	3	3	5300
3000	3	3	3	3	3	3	3	4	4	4900
3500	3	3	3	3	3	4	4	4	4	4400
4000	3	3	3	3	4	4	4	4	4	4200
4500	3	3	3	3	4	4	4	4	4	4100
5000	3	3	3	4	4	4	4	4	4	4000
5500	3	3	3	4	4	4	4	4	4	3800
6000	3	3	4	4	4	4	4	4	4	3700



*Given that the maximum section length is approx. 6.9 m, the crossbeam must be coupled and therefore requires 3 posts.

Snow load 1250 N/m²

Depth in mm	Width in mm 2000	2500	3000	3500	4000	4500	5000	5500	6000	Spacing betw. posts, Sp. max. in mm
	2 posts								3 posts	
1000	2	2	2	2	2	2	2	2	2	6700
1500	2	2	2	2	2	2	2	2	3	5900
2000	2	2	2	2	2	2	2	3	3	5300
2500	2	2	2	2	2	2	3	3	3	4800
3000	2	2	2	2	2	3	3	3	3	4300
3500	2	2	2	2	2	3	3	3	3	4100
4000	2	2	2	2	3	3	3	3	3	3900
4500	2	2	2	2	3	3	3	3	3	3800
5000	2	2	2	2	3	3	3	3	3	3600
5500	2	2	2	2	3	3	3	3	3	3500
6000	2	2	2	2	3	3	3	3	3	3500



Snow load 1250 N/m²

Depth in mm	Width in mm 6500	7000	7500	8000	8500	9000	9500	10000	10500	Spacing betw. posts, Sp. max. in mm
	2 posts				3 posts		4 posts		5 posts	
1000	2	3*	3	3	3	3	3	3	3	6700
1500	3	3	3	3	3	3	3	3	3	5900
2000	3	3	3	3	3	3	3	3	3	5300
2500	3	3	3	3	3	3	3	4	4	4800
3000	3	3	3	3	3	4	4	4	4	4300
3500	3	3	3	3	4	4	4	4	4	4100
4000	3	3	3	4	4	4	4	4	4	3900
4500	3	3	3	4	4	4	4	4	4	3800
5000	3	3	4	4	4	4	4	4	4	3600
5500	3	4	4	4	4	4	4	4	5	3500
6000	3	4	4	4	4	4	4	4	5	3500

Last updated: 01.04.2004

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WeiTop Terrazza L
Gable Roof Type L

1. Product description, product notes

The Terrazza Gable Roof can be used as a patio roof covering to protect the patio from the elements in general and rain and snow in particular. The gable roof must always be fitted to a rear wall at the site of installation using angle brackets.
The Terrazza Gable Roof can also be used as a carport, but may not be used as a free-standing unit.
The same sections used on the Terrazza L are deployed here, i.e. the large 150 mm roof supports, the rounded posts and the gutter.
In pre-determined areas, the required pitch on the Terrazza Gable Roof can be freely specified.
A surcharge applies for roof pitches greater than 15°.
With a Terrazza Gable Roof, a cross-frame member is always fitted between the front two posts to add the required stability. Alternatively, the cross-frame member can be fitted between the rear posts.
Special depths are available to accommodate the use of web plates as a way of avoiding making longitudinal cuts along the web plates.
Transoms are used in the roof as per the specifications in the price list.
The Terrazza Gable Roof is designed to withstand a snow load of 750 N/m^2 as standard. If greater snow loads apply, it is always necessary to inquire about what design of Terrazza Gable Roof is needed.
A variety of accessories are available for the Terrazza Gable Roof, some of which also come from the WeiTop Terrazza product range.
Use the "WeiTop Terrazza Gable Roof Type L" order form when inquiring about the necessary details and possible optional extras.

2. Posts and water drainage

On the Terrazza Gable Roof, the front and rear posts are situated at the end of the gutter. Any middle posts that may be used are located in the middle. As an option, the posts on the rear wall and side wall can be left out if desired.
The roof is fitted to the gutter via an angle bracket. If the "Gutter wall connection" option is selected, it is not possible to affix a cross-frame member between the posts. The number of posts is given in the price list. The posts which are to be affixed to the substrate are supplied in 3 m lengths and without any fixings. For even greater stability, the posts need to be set in concrete. A reinforcing brace is supplied for the front two posts for this purpose.
The posts can also be sawn to length on request.
As an optional extra, the posts can also be shifted, though this must be stated at the time of ordering. weinor will then check for feasibility. If the front or rear posts are shifted, any existing middle posts stay in their standard position.
As a rule, a surcharge applies for these special requests.
Water drains out of the gutter into the front two posts or, in the case of larger roofs, through the front and rear posts.
The "Drain through the post" and "Side drain from the gutter" versions can also be ordered as optional extras.

3. Roof supports

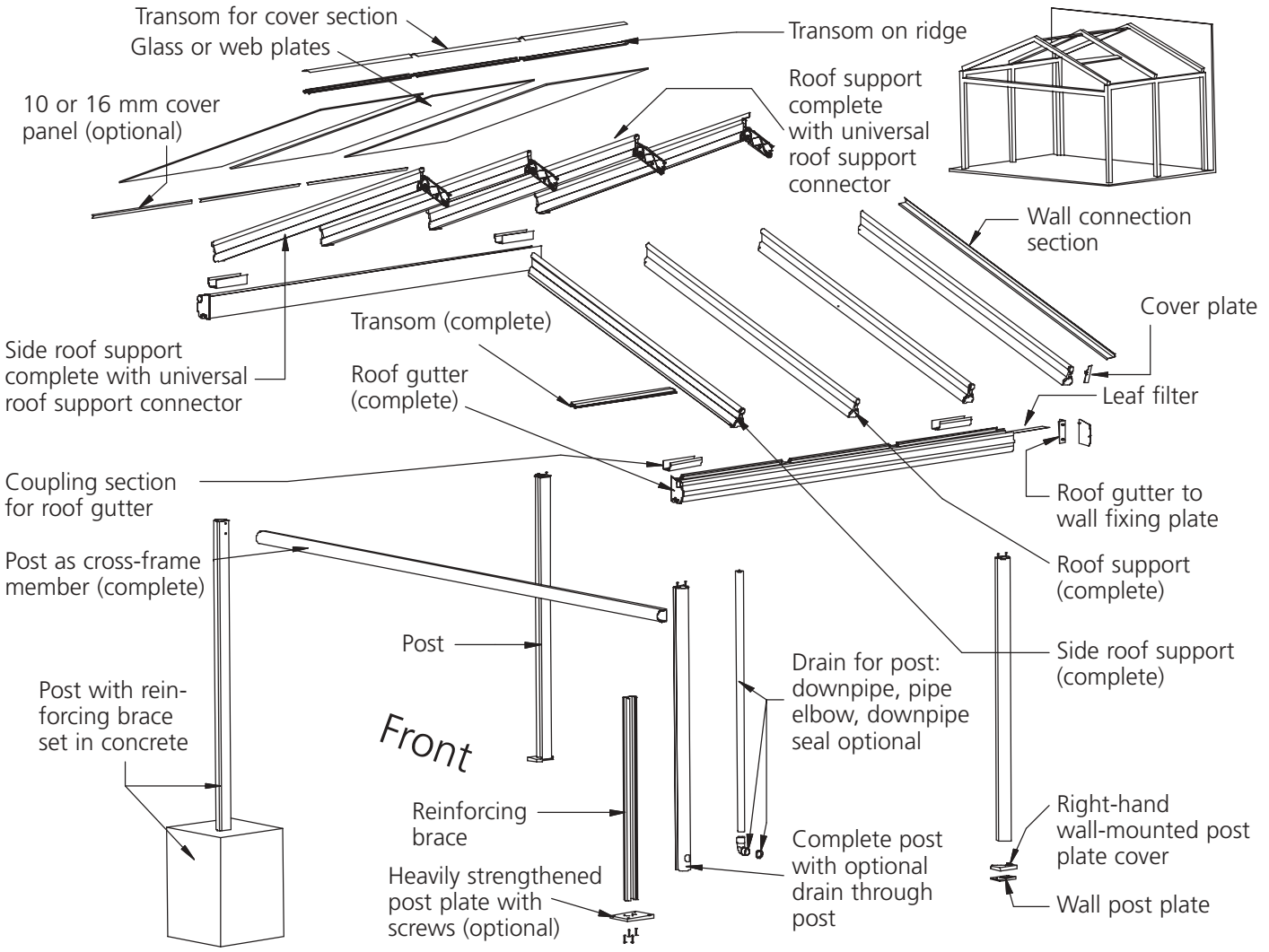
A Terrazza Gable Roof always comes supplied with the size 150 roof support from the WeiTop Terrazza L line.
The number of roof supports required for different gable roof depths can be found in the price list.
The roof supports are always arranged symmetrically, i.e. all roof sections have the same distance between centre lines.
No steel is inserted into the roof supports.
Every two roof support sections are connected together on the ridge. A transom is added to each roof section on the ridge for greater stability.

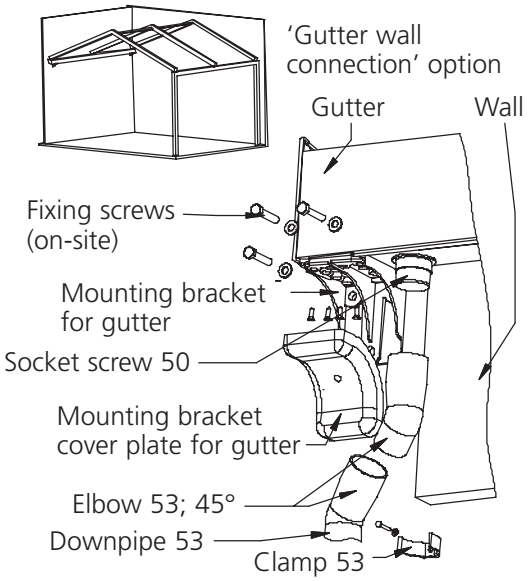
4. Awnings and shades for the Terrazza Gable Roof

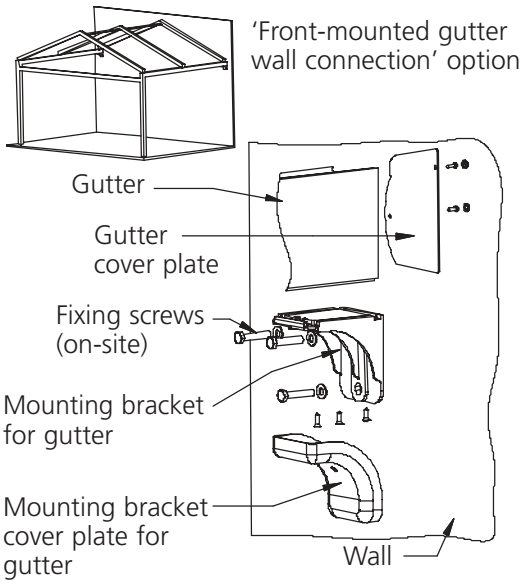
If a conservatory awning (2020, 1000 or Sottezza) is ordered with the Terrazza Gable Roof, the dimensions of the conservatory awning can be derived from the Terrazza Gable Roof order. The dimensions between centre lines, the casing width and projection do not therefore need to be stated at the time of ordering the conservatory awning if no special requirements need to be taken into account. Standard sizes of awnings are described on a separate page.
Vertical awnings may be used as shelter from onlookers and heat. A bracket or support bracket provision for the awnings is available for the Terrazza Gable Roof.

Last updated: 01. 11. 2004

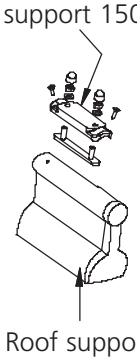
WeiTop Terrazza L
Gable Roof Type L







'Support bracket provision' option



Last updated: 01.11.2004

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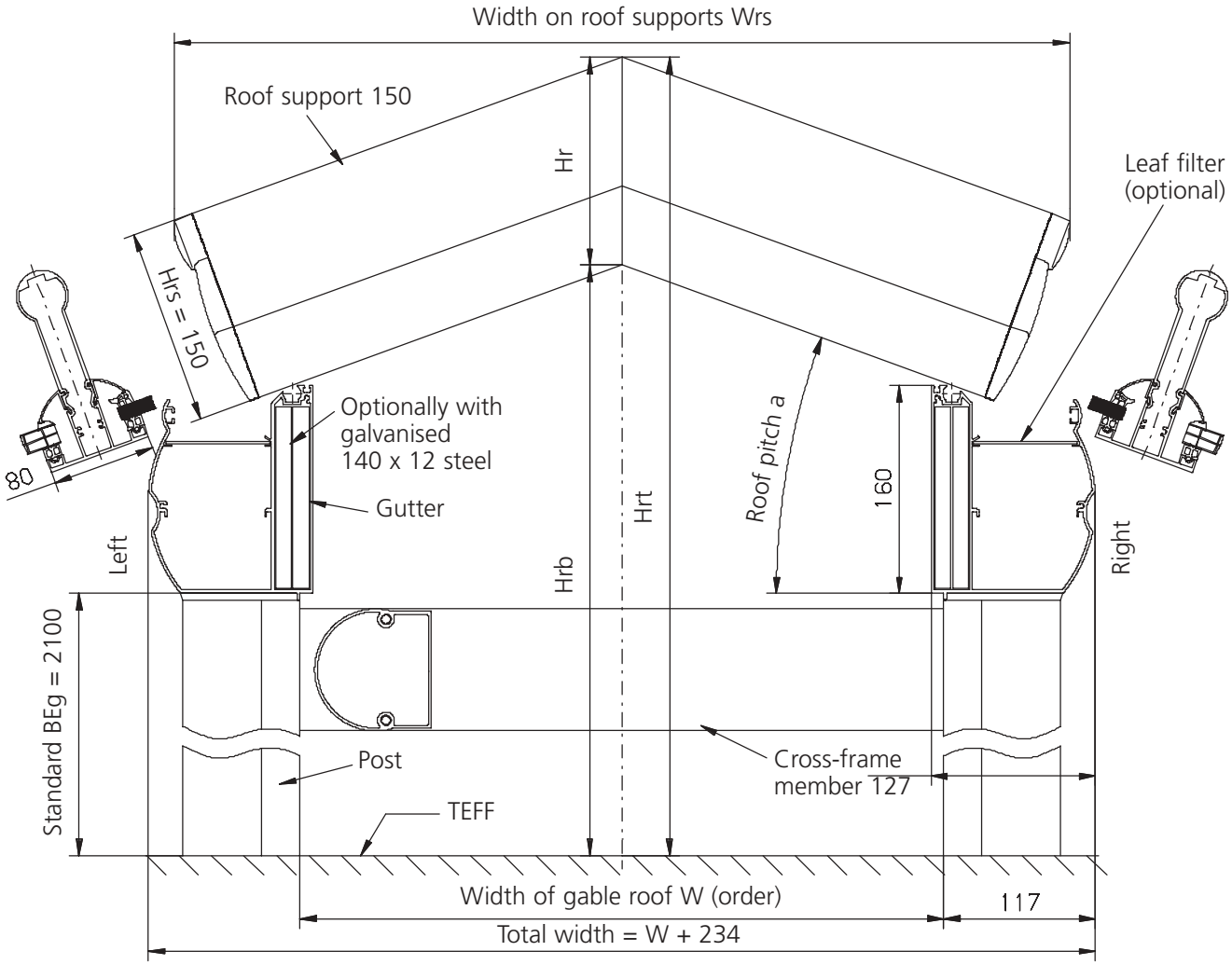
WeiTop Terrazza L
Gable Roof Type L

Standard:
- Roof support 150 without steel
- Gutter without steel
- BEg = 2100 mm
- 1 cross-frame member on front posts

Optional against surcharge:
- Leaf filter
- Steel in gutter (1x or 2x)
- Drain through post
- Rear cross-frame member



The Hr dimensions grow with each increase in roof pitch.
The table below shows how the Hr grows in relation to an increase in roof pitch.

Roof pitch up to	5°	10°	15°	20°	25°	30°	35°	40°	45°
Hr in mm	151	152	155	160	166	173	183	196	212

When the roof pitch exceeds 29°, the roof support cap begins to protrude out over the gutter.
The roof is then at its widest at the roof supports. At 35°, the projection reaches 11 mm; at 40° it is 20 mm, and at 45° 28 mm on each side of the roof.

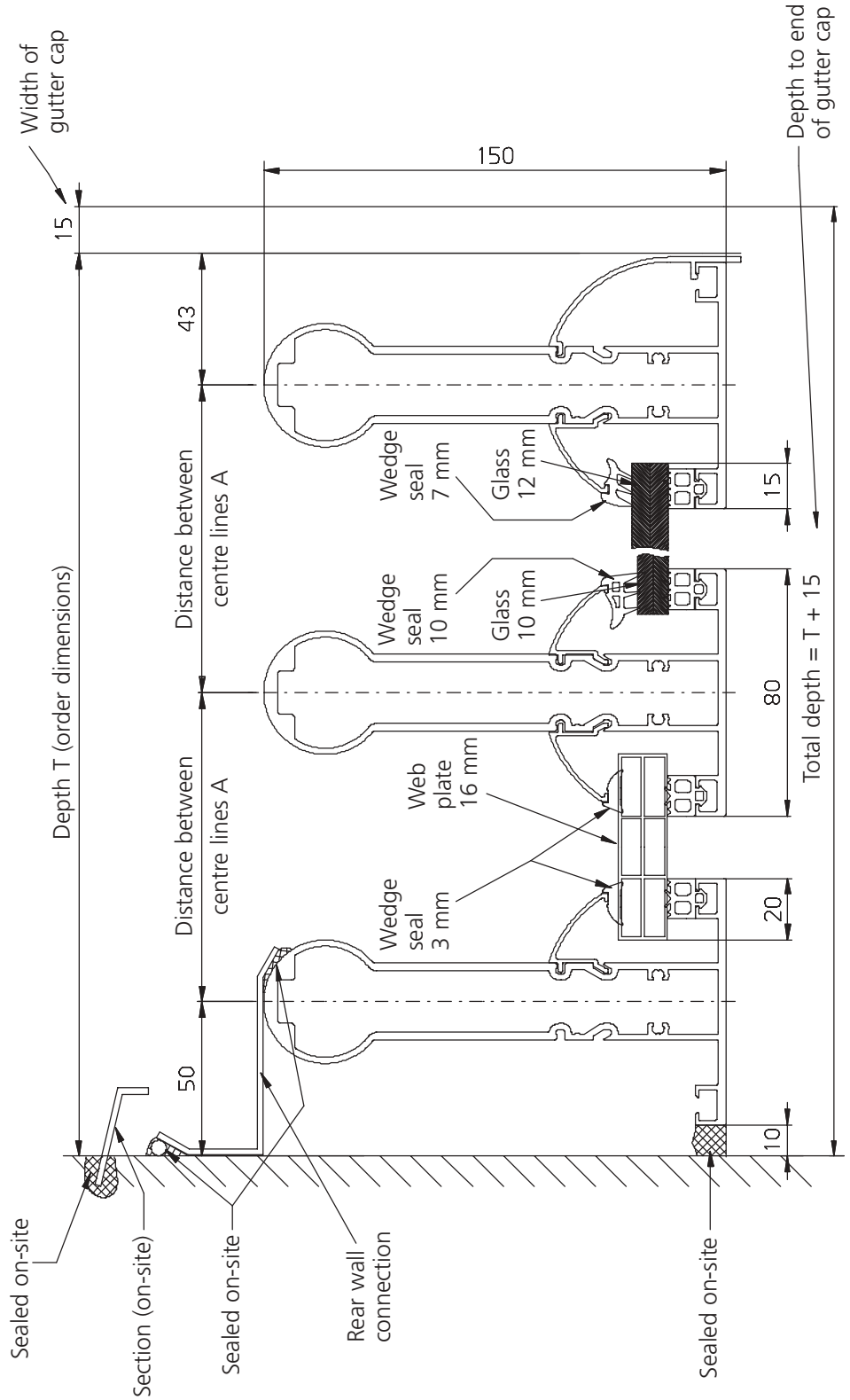
Legend:
TEFF = Top edge of finished floor level
BEg = Bottom edge of gutter
Hrt = Height of ridge at top
Hrb = Height of ridge at bottom
Hr = Height of ridge
Hrs = Height of roof support
W = Width of gable roof
Wrs = Width at roof supports
RS = Roof support

Last updated: 30.04.2009

WeiTop Terrazza L
Gable Roof Type L

General

All roof sections have the same distance between centre lines as standard.
The back of the gable roof always touches a wall.



Last updated: 01.11.2004

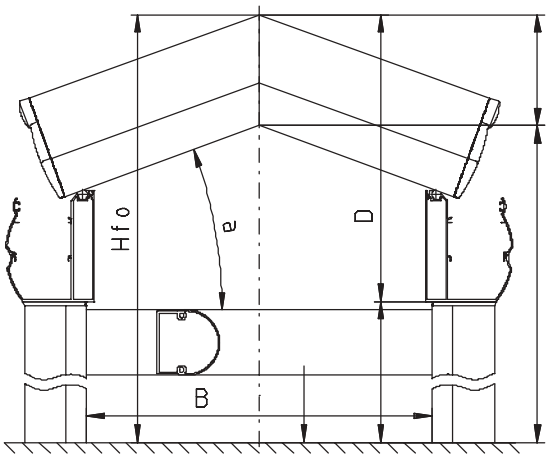
WeiTop Terrazza L
Gable Roof Type L

Formulae:
Hrt = BEg + D
Hrb = Hrt – Hr

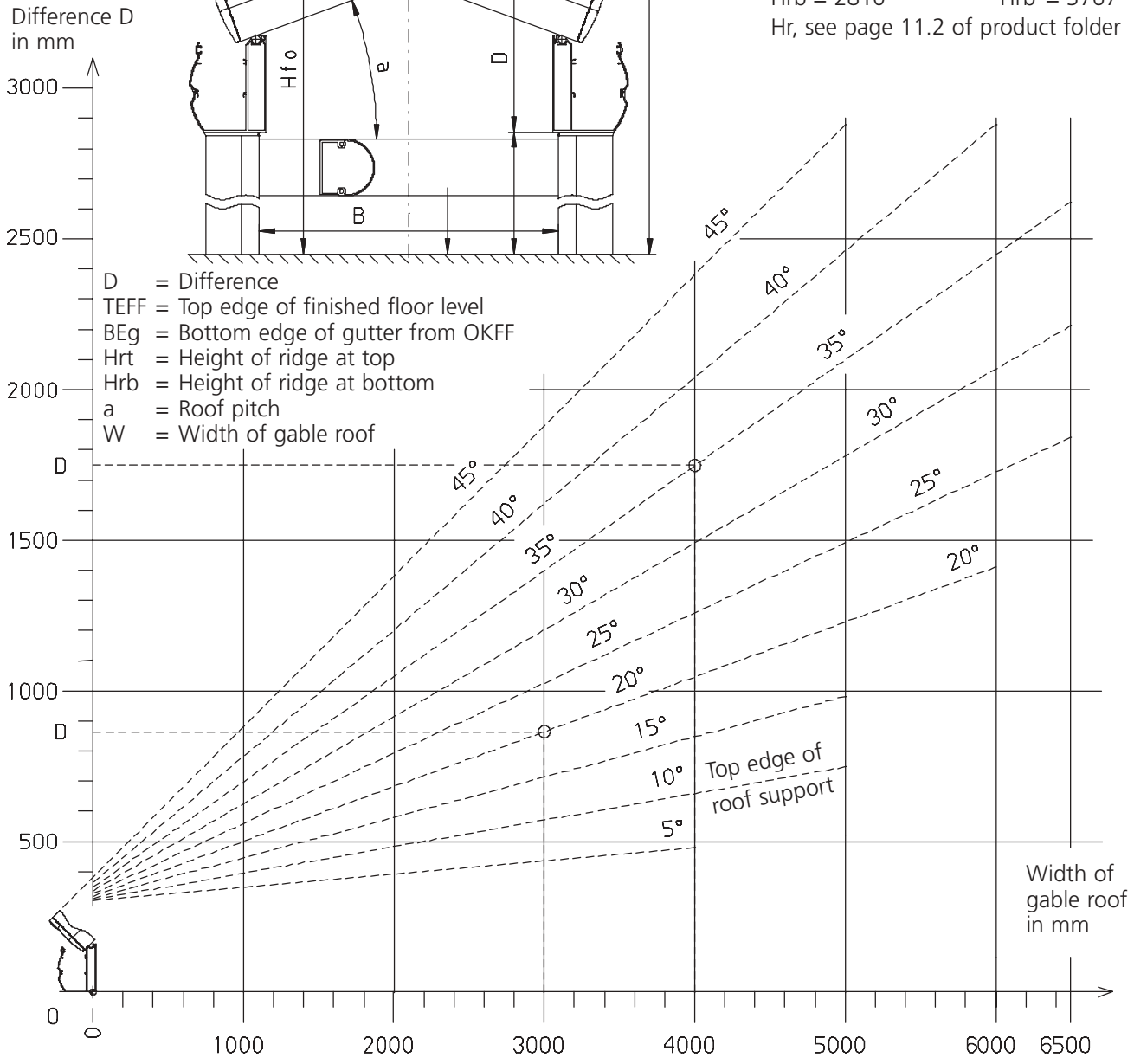
Examples: Gable roof

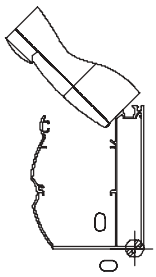
W = 3000	W = 4000
a = 20°	a = 35°
D = 870	D = 1750
BEg = 2100	BEg = 2200
Hrt = 2970	Hrt = 3950
Hr = 160	Hr = 183
Hrb = 2810	Hrb = 3767

Hr, see page 11.2 of product folder



D = Difference
TEFF = Top edge of finished floor level
BEg = Bottom edge of gutter from OKFF
Hrt = Height of ridge at top
Hrb = Height of ridge at bottom
a = Roof pitch
W = Width of gable roof





This diagram can be used to calculate the approximate difference D from the BEg to the Hrt.
Using the formulae given above (see top left) you can then calculate the Hrt and Hrb from the TEFF.
Method:
Calculate the width W and the intended roof pitch a for your roof.
By calculating the point of intersection of the width using the roof pitch and by moving horizontally to the left, you can read the approx. difference D from the BEg to the Hrt.

Last updated: 01.11.2004

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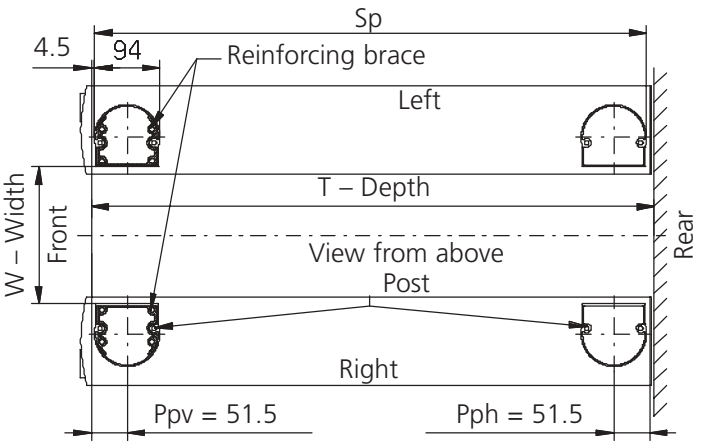
WeiTop Terrazza L
Gable Roof Type L

Notes on posts (standard)

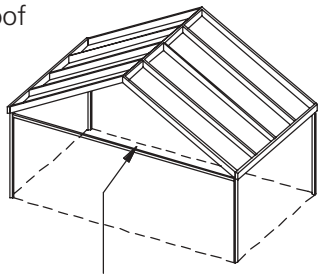
- The standard location for the front and rear posts is at the end of the gutter.
- As a rule, the middle posts are arranged symmetrically, i.e. the posts are evenly spaced.
- The position and quantity of posts is always the same on both sides.
- The number of posts required depending on the size and for a snow load of 750 N/m^2 is provided in the price list.
- The maximum amount of spacing (Sp) between the posts (see pages 4.4 – 4.4.2) given for the Terrazza always applies, whereby the depth of the gable roof is equivalent to the width of the Terrazza.
- The posts are supplied in 3 m lengths as standard and need to be set in concrete on-site. See also product folder page 8.16.
- A reinforcing brace for the front two posts is also automatically supplied.
- The length of post (free-standing from the bottom edge of the gutter to the point of fixing and/or anchorage point) must not exceed 2.2 m.
- Above each post, a gutter coupling section is located inside the gutter.
- Further information on posts can be found in Section 6 of the product folder.



Legend:
Sp = Spacing between posts
Ppf = Position of front posts
Ppr = Position of rear posts
T = Depth of gable roof

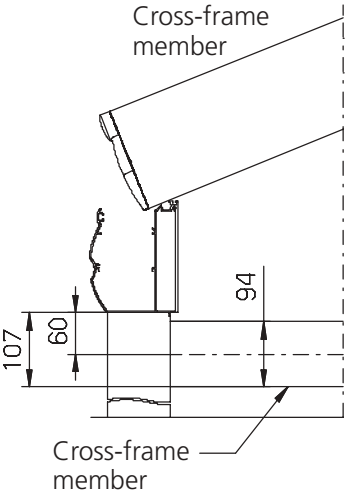
Shifting posts:

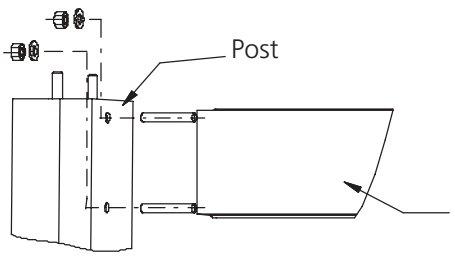
- The posts can be shifted from their standard position. If this is to be performed, please indicate their position at the time of ordering.
- Only posts that have been indicated in this way may be shifted. All other posts must go in their standard position.
- If shifting the posts results in the posts being spaced further apart than usual, steel may have to be inserted into the gutter. A surcharge applies in this case.
- The posts may be indented as specified on page 6.6 of the product folder.



Notes on cross-frame members:

To reinforce the gable roof, a cross-frame member can be fitted between the front posts.
Alternatively, the cross-frame member can be installed between the rear two posts.
The post section is used as a cross-frame member. The rounded side of the cross-frame member must always face outwards. This means that, if fitted at the front, it faces to the front and, if fitted at the back, it faces the back.





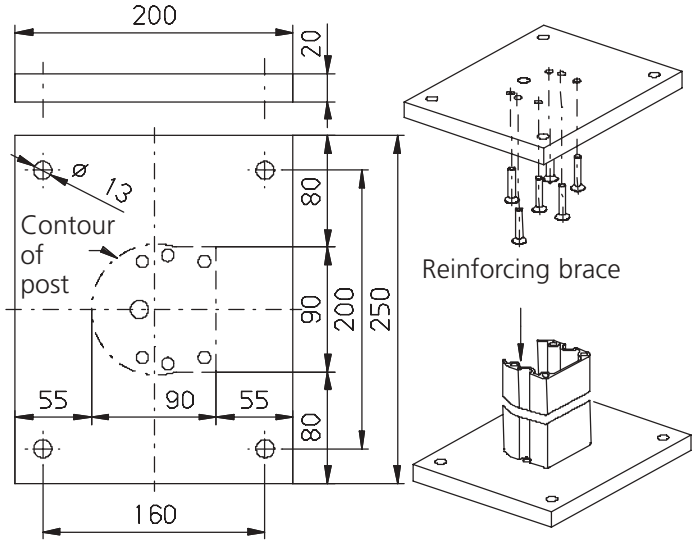
Last updated: 01.11.2004

WeiTop Terrazza L
Gable Roof Type L

Various accessories are available for the post. Always ensure that the right means of fastening the post is selected to meet the on-site building conditions. Below you will find some guidelines to help you make the right choice.
The site foreman is responsible for selecting the right means of fastening the post. The most secure way to fasten the post is to set it in concrete. The reinforcing brace is added to the front posts when these are set in concrete. Larger roofs should always be set in concrete. The following guidelines should be taken into account when deciding on the right means of fastening:

- roofs located between or on side walls can be made less susceptible to impact if they are affixed on-site to the existing walls
- the longer the posts, the more crucial their fasteners become
- the edge distances for the screw fittings towards the end of the bucket foundation or the concrete slab must be taken into account (see Section 8.16).

When screwing the posts into the foundations or a concrete slab, the post plate for the front plates must always be heavily strengthened. The various post plates and caps can be used for middle and rear posts (see below).

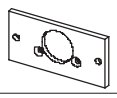


Heavily strengthened post plate:

- for use on roofs where the front posts are screwed into a bucket foundation (at least B 25) or a concrete slab (at least B 25 and at least 15 cm thick)
- per plate: 4 countersunk Allen bolts (DIN 7991 M8x50) to affix the plate to the reinforcing brace and 2 countersunk Allen bolts (DIN 7991 M8x50) to affix the plate to the posts

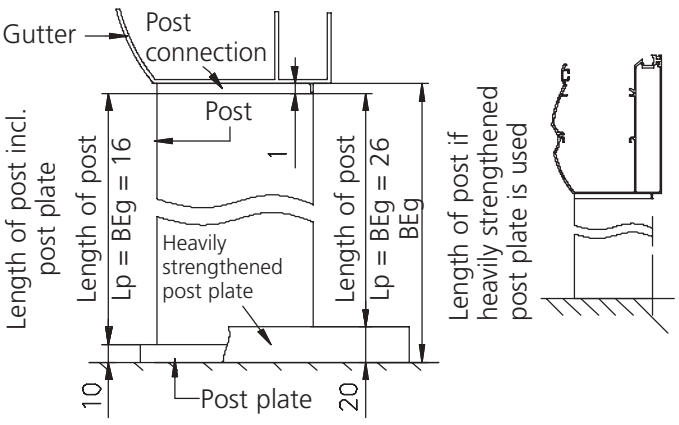
The post plate must be bolted on-site to the reinforcing brace (supplied) of each front post. The post is then slid over the reinforcing brace and also bolted to the post plate.

Other post accessories: see pages 6.0; 6.3 and 6.7 in the product folder.
The post plates for the wall may only be used to affix the roof to a wall.

Designation	Use	Figure
Post plate	Middle post	
Wall post plate (left and right)	Rear post	
Post plate cap	Middle post	
Cap for wall post plate, left	Rear post	
Cap for wall post plate, right	Rear post	

Optional version: sawing posts to length:

Alternatively, the posts can be sawn to length. In this case, the length of the posts will need to be indicated. The method for calculating the length of the posts can be found in the drawing. In some cases, different post plates require different post lengths.



Last updated: 01.11.2004

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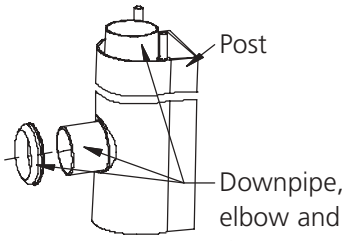
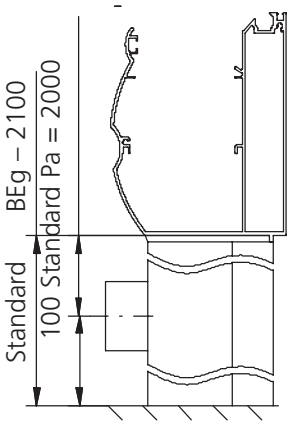
WeiTop Terrazza L
Gable Roof Type L

General
For each 20 m² of roof area, a drain must be provided for. This is automatically taken into account in the case of standard roofs. If one drain is envisaged per gutter, the drain is fitted at the front; if two drains are required per gutter, one drain is at the front, the other at the back.
Alternatively, the drain can run through the post or out the front of the gutter.
If the posts are shifted, the position of the drains will need to be adjusted accordingly.

Drain accessories
For explanations relating to the drain accessories, please consult page 8.12 in the product folder. The "Drain through the post" and "Drain without posts" options listed there are not available with gable roofs.

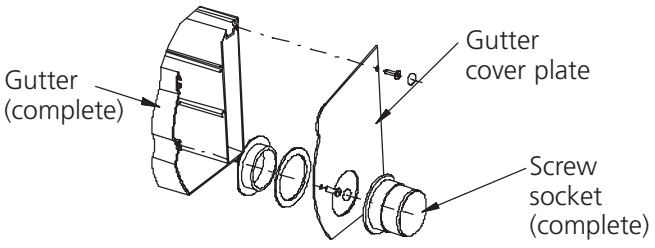
Drain through post
Unless otherwise indicated in the order, the bottom edge of the gutter (BEg) is assumed to measure 2100 mm.
The hole that is drilled to allow for the drain is 2000 m from the BEg.
See also page 8.12 in the product folder.
A downpipe, 87° elbow and a downpipe seal are supplied automatically.



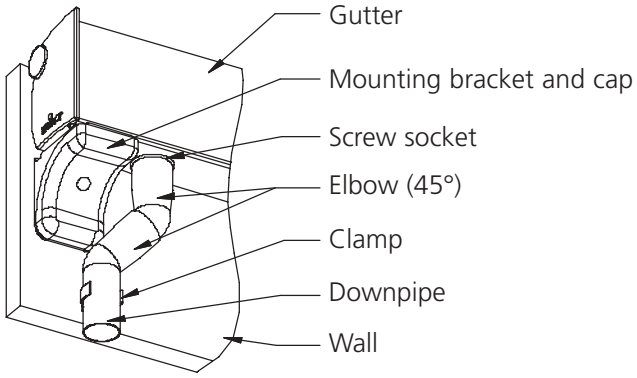


BEg – Bottom edge of gutter
Pd – Position of drain

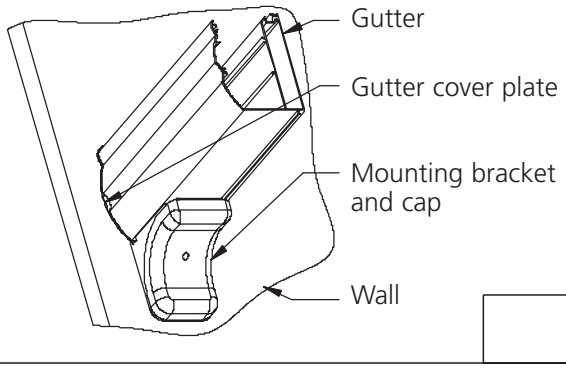
Side drain from gutter (optional)
This is a useful option if the gutter touches a wall, making it impossible to fit posts for the drainage system. One size 50 screw socket is automatically supplied per drain with the gable roof and will need to be fitted on-site. A cover plate is used instead of the gutter cap. Side drains running from the gutter cannot be fitted if a wall is situated on the front side.



Drain from gutter on "Gutter wall connection" option
The gutter wall connection is described on page 11.8. Drains that run from the gutter are fitted next to the gutter mounting bracket.
As a rule, if one drain is used it sits at the front; if two drains are used, one is at the front, the other at the back. A screw socket, downpipe, two 45° elbows and two clamps are automatically supplied with each wall-mounted drain. These parts need to be fitted on-site.
It is also possible to indicate where the drains should be positioned. Side drains running from the gutter can also be ordered as an optional extra.



Drain from gutter on "Front-mounted gutter wall connection" option
The front-mounted gutter wall connection is described on page 11.8. With this option, it is not usual for the drain to be rear-fitted on the wall.



Last updated: 01.11.2004

WeiTop Terrazza L
Gable Roof Type L

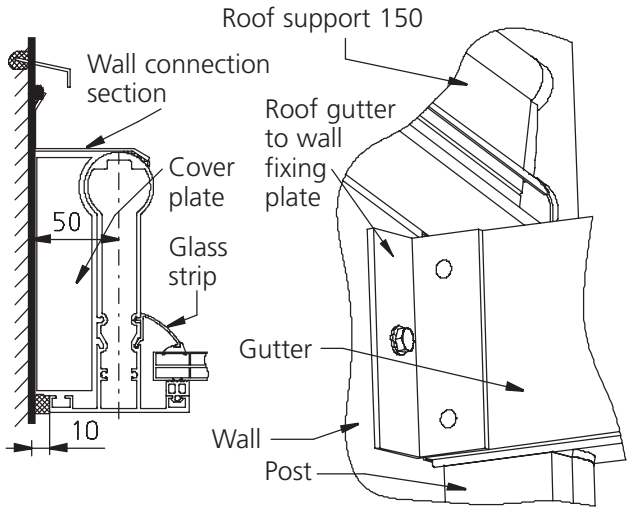
General

For reasons of structural stability (statics), a gable roof must always be connected to a rear wall. Alternatively, the gable roof gutter may be affixed to the wall using mounting brackets. The various means of attachment are described below:

Fitting to a rear wall (standard)

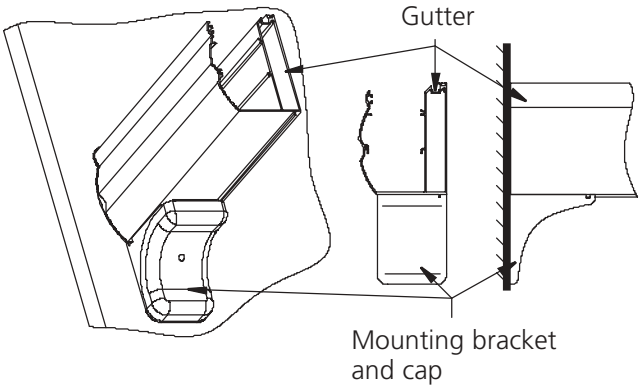
Two wall connection sections and two cover plates are automatically supplied. These need to be fitted on-site. The cover plates are needed to close the gap between the roof support and the wall. The roof support fitted to the wall has only one glass strip. The gutters have cover plates on the side facing the wall.

Two brackets are also automatically supplied to affix the gutter to the wall. These brackets need to be attached at the site of installation.



Front-mounted gutter wall connection, optional

With the front-mounted gutter wall connection option, the gutter abuts against a wall. Since, with this option, the gutter is fixed to the wall using a bracket, there is no need for a post to be fitted here. The mounting bracket and cap are fitted on-site.



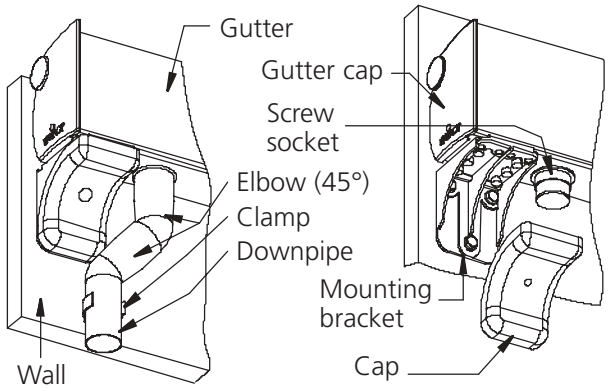
Gutter wall connection, optional

With the gutter wall connection option, the gutter abuts along a wall. Since, with this option, the gutter is fixed to the wall using brackets, there is no need for a post to be fitted on this side. According to the price list, one mounting bracket and cap is used per post.

The following is also automatically supplied:

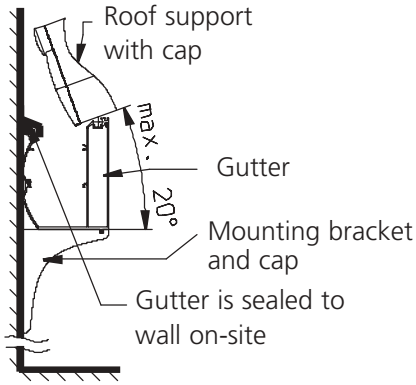
- one screw socket, downpipe, two 45° elbows and two clamps

Mounting brackets with caps can also be ordered separately. The mounting brackets and accessories need to be fitted on-site. In doing so, the spacing between mounting brackets must not exceed the standard spacing between the posts. The sealing of the gutter on the wall side is also done on-site.



This option is only possible on roofs with a maximum pitch of 20° unless additional work is performed. If the roof pitch is greater, the roof support caps abut against the wall (see also page 11.2).

In this case, the roof supports will need to be modified on-site and the roof support caps are not used.



Last updated: 01.11.2004

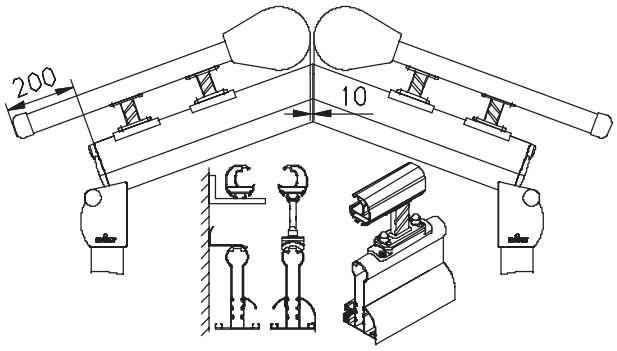
WeiTop Terrazza L
Gable Roof Type L

General

A variety of awnings and shades can be used on the Terrazza Gable Roof as shelter from heat and onlookers.
The following products are available for the roof section: WGM Sottezza, WGM 1000 and WGM 2020 Design as well as the Aruba Solar provided the roof pitch is 30° or higher. It should be noted, however, that the WGM Sottezza may only be used underneath the roof covering. Awnings mounted above the roof covering are affixed to the rear wall using brackets. On larger gable roofs, there is a possibility that only half the roof is shaded if a single-section awning is used.
If a two-section awning is required, it must also be secured to a middle roof support. If awnings are to be mounted above a gable roof fitted with a gutter that abuts against a side wall, please note these must not project more than 200 mm further than the roof.
If vertical awnings are to be fitted, the Aruba and Paravento products may be used. For further explanations on the different types of awnings, please consult the awnings product folder.

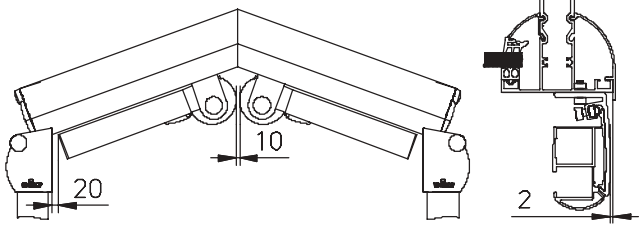
WGM 2020 Design and WGM 1000

If the WGM 1000 or 2020 Design is ordered with the gable roof, a support bracket provision may be used on standard roofs (see page 8.7).This is attached to the front roof support, and also a middle roof support if necessary. The back of the conservatory awning must be attached to the wall using brackets (see page 8.5).
weinor calculates the size of the conservatory awning for you, with the conservatory awning projecting out 200 mm past the end of the roof support.
The customer can also specify the distance between centre lines and amount of projection, however.



WGM Sottezza

If the WGM Sottezza is ordered, the brackets are customarily positioned at the outermost points of the outer roof supports. If these need to be positioned elsewhere, please ensure that this is indicated at the time of order or that the customer specifies the casing width.
A bracket provision is only possible on the Sottezza if the standard positions are m aintained (see page 8.11 in the product folder).



Aruba Solar

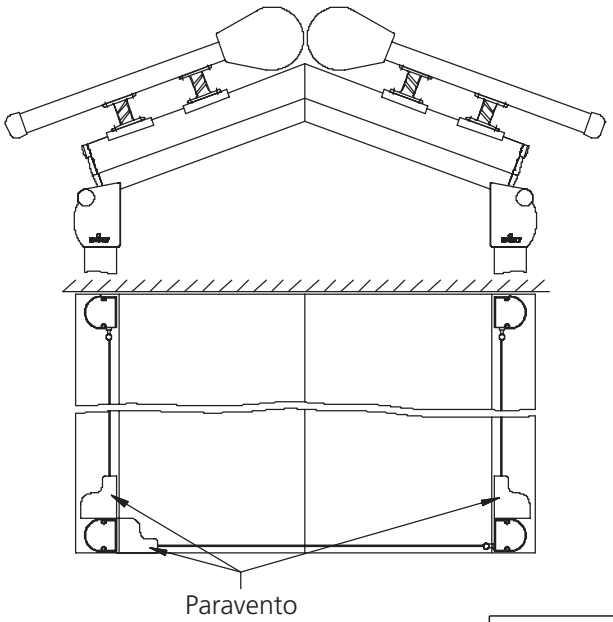
The Aruba Solar can be used on roof pitches of 30° and above. Since the fabric is not tensioned using springs, there is a greater amount of sag in the fabric.
The fitting of the Aruba Solar to the roof supports using support brackets and to the wall using angle brackets is performed at the site of installation.

Aruba

The various Aruba versions can be used as vertical, side or front-mounted awnings.
They can be mounted either between the posts or on the posts. Alternatively, they can be fitted on or below the gutter.

Paravento

The Paravento can be used as a vertical awning.
It can be fitted to the posts.



Last updated: 01.11.2004

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WeiTop Terrazza L
Type L: Gable Roof

Explanations:
The table below lists cross-references to other pages in the WeiTop Terrazza product folder which, for example, describe various options or accessories. The information on these pages also applies analogously to the gable roof.

Topic	Section Page	Special Features of Gable Roof
WeiTop Terrazza with WGM Support plate provision for WGM	8.3	• A 200 mm roof overhang starting from the end of the roof support is standard • Only size 150 roof supports • The wall on the Terrazza is equivalent to the (middle) ridge on the gable roof – Aw = 5 mm
WeiTop Terrazza with WGM Fitting support brackets to conservatory awning with roof support 150	8.7	
Drain Accessories	8.12	• No drains without posts • 10 mm cover plate also for 12 mm glass
Cover Plate for Roof Covering	8.13	• Sections only in 1 m lengths
Side walls	8.14	• Side wall on Terrazza is equivalent to rear wall on gable roof • Gable roof always has a rear wall • Only size 150 roof supports • The gable roof must be affixed to the wall, using angle brackets from the gutter to the wall for example
Foundations for WeiTop Terrazza	8.16	• Foundation plan for gable roof is similar to that for the Terrazza
Installation of vertical elements	8.17	• The side openings on the Terrazza are equivalent to the half openings on the front of the gable roof

Last updated: 30.04.2009

WeiTop Terrazza L
Type L: Gable Roof

Cross-sections of sections; statics values
The product folder pages listed below show the various cross-sections that apply to the sections. The following values have specifically been listed:

- the moments of inertia in X- and Y-direction in cm^4
- the resisting torque in X- and Y-direction in cm^3
- the weight in kg/m
- material used
- main dimensions

4.3 – General information
4.3.1 – Gutter, with and without steel
4.3.2 – Roof support
4.3.3 – Posts

Should you require further details, e.g. the position of the centre of mass, or anything else, please contact weinor.

Weight-bearing tables
Various tables are available containing information relating to the use of roof supports, gutters and posts.
This information includes:
- the use of steel in the gutter
- the maximum gutter span, i.e. the maximum distance between two posts.

These tables can also be used for the gable roof under the following conditions.

Topic	Section Page	Special Features of Gable Roof
Information on gutter selection Table – gutter snow load 750 N/m^2 Table – gutter snow load 1250 N/m^2	4.1 4.1.1 4.1.2	• The width of the gable roof is equivalent to the depth of the Terrazza • The depth of the gable roof is equivalent to the width of the Terrazza
Information on roof support selection Converting the width of the gable roof to the length of the roof support Table – roof support 110. Snow load 750 N/m^2 Table – roof support 110. Snow load 1250 N/m^2 Table – side roof support 110. Snow load 750 N/m^2 Table – side roof support 110. Snow load 1250 N/m^2	4.2.0 4.2 4.2.1 4.2.3 4.2.5 4.2.7	• Half the width of the gable roof is equivalent to the depth through which the roof support length L can be calculated
Information on post selection Number of posts for gutter without steel Number of posts for gutter with 1x steel 140 x 12 Number of Posts for Gutter with 2 Steel 140 x 12	4.4 4.4.1 4.4.2 4.4.3	• The width of the gable roof is equivalent to the depth of the Terrazza • The depth of the gable roof is equivalent to the width of the Terrazza

Last updated: 30.04.2009

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