



Gutter systems

Optimal hydraulic capacity with designs
and colours for every style



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Optimal hydraulic capacity with designs and colours for every style



Plunia® gutter



Trapezoidal gutter



Circular double volute gutter



Circular single volute gutter



Design

Innovation and wide range



Capacity

Optimal hydraulic capacity



Resistance

Optimal resistance to thermal shocks and UV radiation



UV protection

Long useful life and long-lasting colour



Sustainability

Fully recyclable material



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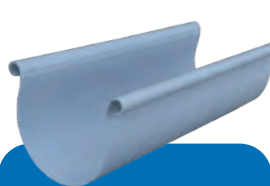
1. Gutter range

Model	Size Width x Height (mm)	Perimeter (mm)	Useful cross- section (m²)	Profile length (m)	Downspout Ø	Collected surface TBC 0.5% gradient (m²)	Collected surface TBC 1% gradient (m²)	Joint	Colours according to reference
PLUNIA®									
CA-130	137x89	230	75.2	3	90	66	104	Elastic	○ White ● Brown ● Copper
adequa® circular double volute gutter									
CA-125	141x84	270	57.2	4	90	55	73	Elastic	● Light grey ● Dark grey ● Brown
CA-185	200x119	390	133.3	4	110	156	218	Elastic	● Light grey ● Dark grey ● Brown
CA-250	266x159	530	237	4	125	335	475	Elastic	● Light grey
adequa® circular single volute gutter									
CA-25	128x89	250	54.5	3	90	53	70	Elastic	○ White ● Dark grey ● Copper
				4	80			Adhesive	● Light grey ● Sand
CA-33	189x126	330	119.5	3	110	136	191	Elastic	○ White ● Dark grey
				4	100			Elastic	● Light grey ● Sand
adequa® trapezoidal gutter									
CA-26	110x74	260	67.6	3	100x73 and 90	83	116	Adhesive	○ White ● Dark grey ● Brown
CA-34	140x111	340	132.5			185	260	Adhesive	○ White

White - RAL 9016; Brown - RAL 8017; Copper - RAL 8008; Light grey - RAL 9018, Dark grey - RAL 7037; Sand - RAL 1015



**PLUNIA®
gutter**



**Circular double
volute gutter**

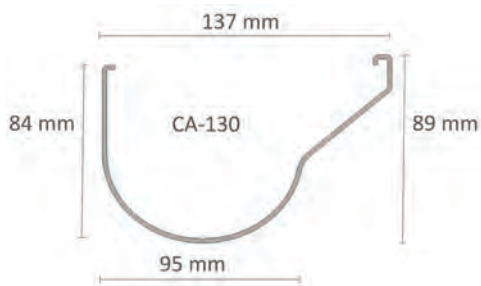


**Circular single
volute gutter**

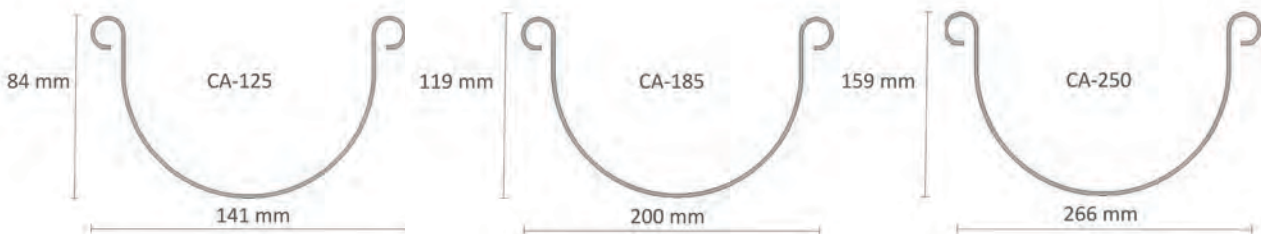


**Circular single
volute gutter**

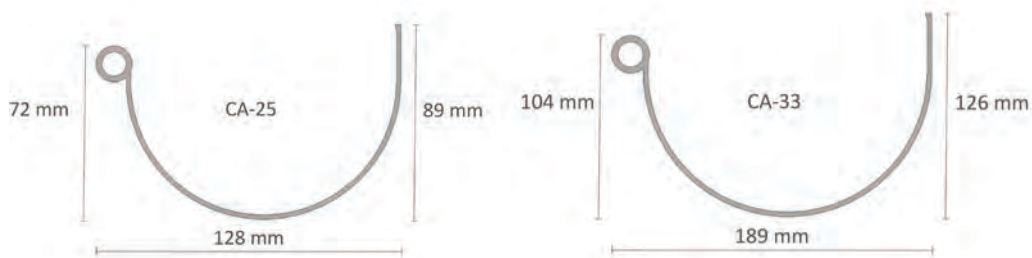
Plunia® gutter



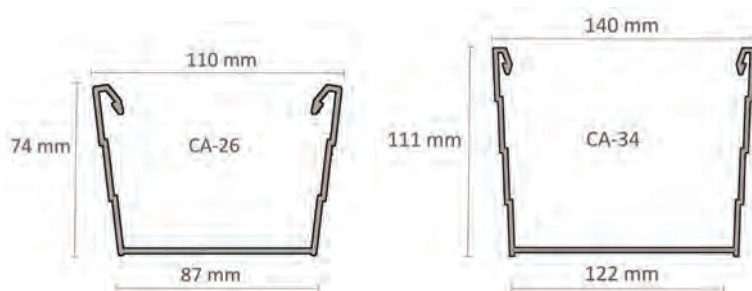
adequa® circular double volute gutter



adequa® circular single volute gutter



adequa® trapezoidal gutter



Gutters. Uses, regulations and models

The **gutter system** has been designed and manufactured to drain rainwater from buildings and to offer maximum efficiency and design in projects.

The range of gutters offered by **Molecor** consists of profiles and fittings with different options, geometries and a wide variety of colours to maintain the aesthetic of all frontages and provide efficient, reliable solutions for rainwater drainage.

The gutters and their corresponding fittings are made with high-quality PVC, together with additives and stabilisers that ensure a long useful life, making each gutter highly resistant to impacts and blows from external environmental factors (rain, sea breeze, pollution, etc.), thus maintaining their physical and aesthetic characteristics over time.

The internal surfaces of **Molecor** gutters are completely smooth so as to facilitate the swift drainage of any water collected and, therefore, prevent any obstructions.



Main advantages



- Extraordinary resistance to atmospheric agents and the effects of UVA rays thanks to the stabiliser titanium dioxide.
- Safety and durability, practically unalterable and unbreakable when used correctly.



- Designed to achieve perfect longitudinal rigidity and easy installation on site.
- All models have the necessary fittings to provide the right solution for any project, with special care paid to aesthetics thanks to their wide selection of colours.
- Can be installed on vertical strips, straps, corrugated roofs or tiles.
- Full watertightness thanks to joint systems that use elastic or adhesive joints.



- Long useful life and long-lasting colour.



- Optimal hydraulic capacity with different drainage options. Great hydraulic fluidity with no adhesions.



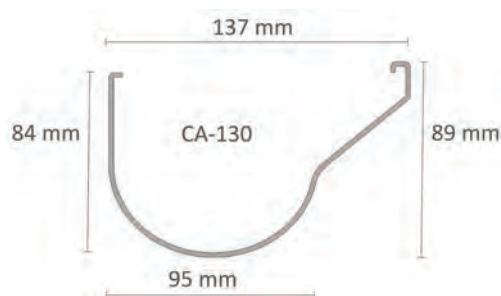
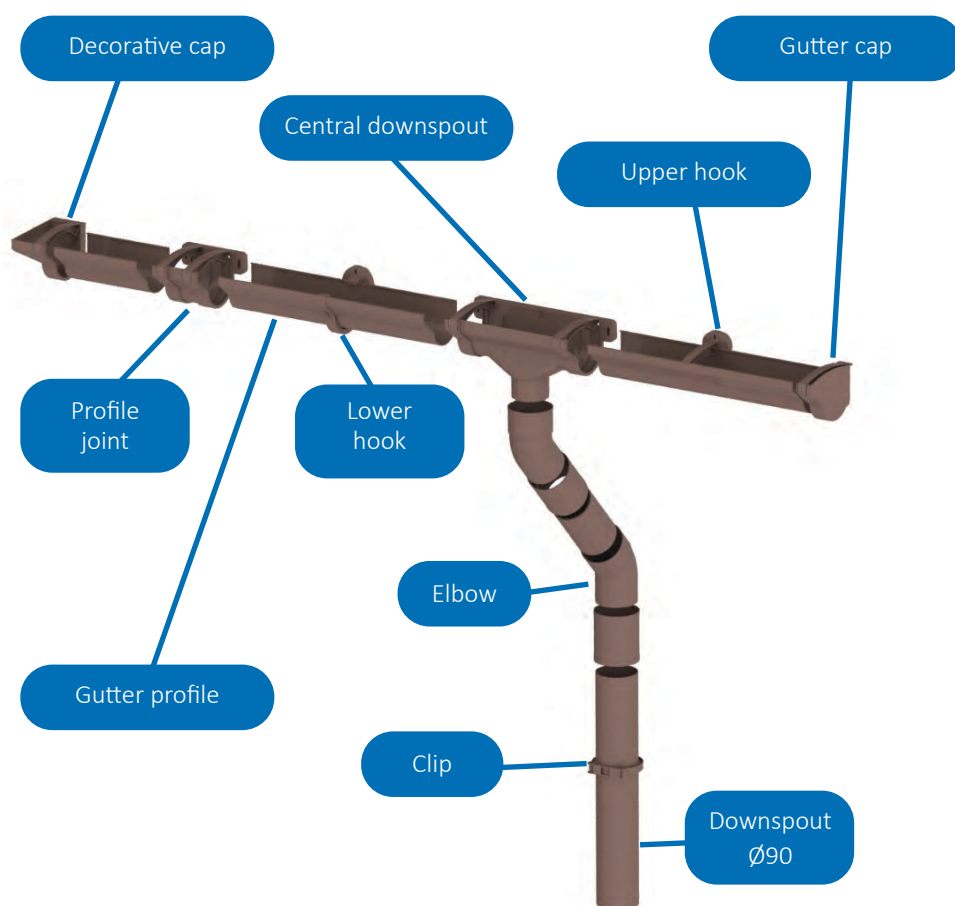
- Sustainable, manufactured from materials that are 100% recyclable at the end of their useful life.

2. Plunia® decorative gutter

The **Plunia®** gutter is a full range of easy-to-install solutions that can be used to create rainwater collection systems on roofs. With its innovative design similar to a semicircle, it adapts masterfully to current construction trends while offering excellent performance and resistance.

The gutter profile is connected to its fittings using elastic joints, facilitating their connection and guaranteeing their watertightness. In addition, it has rear reinforcements that make installation on a frontage easy, preventing potential oscillations and ensuring it remains in the correct position over time.

Model	CA-130
Size Width x Height (mm)	137x89
Perimeter (mm)	230
Useful cross-section (cm²)	75.2
Profile length (m)	3
Downspout Ø	90
Colours acc. to ref.	○ White CA-130-B (RAL 9016) ● Brown CA-130-M (RAL 8017) ● Copper CA-130-C (RAL 8008)



2.1. Advantages and characteristics of the PLUNIA® gutter

- Designed with a semicircular shape at its lower end with a straight outlet for **improved hydraulic capacity and a higher flow speed**, preventing any overflows and helping to keep the installation clean.
- **Available in three colours** (white, brown and copper), and in **3 m lengths**.
- Its **fittings** include an innovative **clip closure and multi-lip joint** which enhance the joint's safety and the assembly's watertightness, even in challenging conditions.
- Fittings equipped with side flaps that enable the system to be aligned, as well as pre-marked central holes to give the installation an auxiliary frontal attachment option.
- **Attractive gutter caps and concealed hooks** available, improving the overall appearance of the frontage.
- **Rear reinforcements that facilitate its installation on a frontage**, preventing potential oscillations and ensuring it remains in the correct position over time.
- **Resistance to thermal shock, corrosion, chemical agents and solar radiation**.
- Downspout with a Ø90 circular cross-section and 3 m long.



2.2. Joint system

The joint system used to connect the **Plunia®** gutter profile to its fittings uses elastic joints, facilitating their connection and guaranteeing their watertightness. The gutter profile is installed by following these steps:

- 1 Check that the gutter cut is perpendicular to its axis. To do so, use a saw and a cutting template.
- 2 Remove burrs from the edge using sandpaper.
- 3 Open the fitting's attachment clip and place the end of the gutter inside the fitting up to the position indicated to allow for expansion.
- 4 Close the fitting's clip and the profile will remain supported within it, guaranteeing the assembly's watertightness.
- 5 Move the central downspout and any gutter angles and joints into position before fixing with hooks.
- 6 Ensure that the gutter has been inserted in each fitting up to the reference mark.
- 7 Position the gutter in the hooks aligned previously.
- 8 Repeat the steps outlined above to complete the installation, and ensure you have installed all joints and caps necessary to fully secure the gutter to the hooks.
- 9 Once the gutter and its fittings have been assembled, perform a final alignment and screw in the fittings and their metal brackets.



The specifications related to assembly are provided as a guide and under no circumstances is **Molecor** liable in this regard. The user is responsible for assessing whether these instructions are suitable for their installation or whether they should be more restrictive, according to the installation's constraints.

2.3. Component range for the PLUNIA® gutter

	Ref.	Code	Units/Pack	Units/Pallet	Perimeter	Colour
PLUNIA® 3 m gutter						
	CA-130-B	2133949	6	54	230 mm	○ White
	CA-130-M	2133950	6	54	230 mm	● Brown
	CA-130-C	2130961	6	54	230 mm	● Copper
	Ref.	Code	Box/Units		Perimeter	Colour
90° inner corner						
	EI-130-B	2130143	C-4		230 mm	○ White
	EI-130-M	2130179	C-4		230 mm	● Brown
	EI-130-C	2130191	C-4		230 mm	● Copper
90° outer corner						
	EE-130-B	2130145	C-4		230 mm	○ White
	EE-130-M	2130180	C-4		230 mm	● Brown
	EE-130-C	2130192	C-4		230 mm	● Copper
Left gutter cap						
	TIR-130-B	2130147	J-10		230 mm	○ White
	TIR-130-M	2130181	J-10		230 mm	● Brown
	TIR-130-C	2130193	J-10		230 mm	● Copper
Right gutter cap						
	TDR-130-B	2130148	J-10		230 mm	○ White
	TDR-130-M	2130182	J-10		230 mm	● Brown
	TDR-130-C	2130194	J-10		230 mm	● Copper
Left gutter design cap						
	TID-130-B	2130149	D-10		230 mm	○ White
	TID-130-M	2130183	D-10		230 mm	● Brown
	TID-130-C	2130195	D-10		230 mm	● Copper
Right gutter design cap						
	TDD-130-B	2130171	D-10		230 mm	○ White
	TDD-130-M	2130184	D-10		230 mm	● Brown
	TDD-130-C	2130196	D-10		230 mm	● Copper
Left fitting cap						
	TIA-130-B	2130172	J-10		230 mm	○ White
	TIA-130-M	2130185	J-10		230 mm	● Brown
	TIA-130-C	2130197	J-10		230 mm	● Copper

	Ref.	Code	Box/Units	Perimeter	Colour
Right fitting cap					
	TDA-130-B	2130173	J-10	230 mm	○ White
	TDA-130-M	2130186	J-10	230 mm	● Brown
	TDA-130-C	2130198	J-10	230 mm	● Copper
Profile joint					
	UP-130-B	2130174	C-10	230 mm	○ White
	UP-130-M	2130187	C-10	230 mm	● Brown
	UP-130-C	2130199	C-10	230 mm	● Copper
Circular central downspout Ø90					
	BCC-130-B	2130175	Q-5	230 mm	○ White
	BCC-130-M	2130188	Q-5	230 mm	● Brown
	BCC-130-C	2130200	Q-5	230 mm	● Copper
Upper hook					
	GS-130-B	2130176	E-20	230 mm	○ White
	GS-130-M	2130189	E-20	230 mm	● Brown
	GS-130-C	2130201	E-20	230 mm	● Copper
Lower hook					
	GI-130-B	2130178	D-35	230 mm	○ White
	GI-130-M	2130190	D-35	230 mm	● Brown
	GI-130-C	2130202	D-35	230 mm	● Copper
Clip with built-in closure Ø90					
	COL-90-B	1001426	D-60	230 mm	○ White
	COL-90-M	1000891	D-60	230 mm	● Brown
	COL-90-C	2130167	E-25	230 mm	● Copper
45° M-F elbow Ø90 adhesive joint					
	CS-4-B	1001284	B-30	230 mm	○ White
	CS-4-M	1000908	B-30	230 mm	● Brown
	CS-4-C	2130168	C-15	230 mm	● Copper
67° 30' M-F elbow Ø90 adhesive joint					
	CS-6-B	1001313	B-25	230 mm	○ White
	CS-6-M	1000942	B-25	230 mm	● Brown
	CS-6-C	2130169	C-12	230 mm	● Copper
87° 30' M-F elbow Ø90 adhesive joint					
	CS-8-B	1001375	B-30	230 mm	○ White
	CS-8-M	1000961	B-30	230 mm	● Brown
	CS-8-C	2130170	C-15	230 mm	● Copper

*Article manufactured to order. Consult delivery times.

	Ref.	Code	Box/Units		Perimeter	Colour
45° M-F branch Ø90 adhesive joint						
	BS-14-B	1001775	B-12		230 mm	○ White
	BS-14-M	1001190	B-12		230 mm	● Brown
	BS-14-C	2130211*	B-12		230 mm	● Copper
87° 30' M-F branch Ø90 adhesive joint						
	BS-18-B	1001850	A-30		230 mm	○ White
	BS-18-M	1001227*	B-30		230 mm	● Brown
	BS-18-C	2130212*	B-15		230 mm	● Copper
Circular F-F cuff Ø90 with adhesive joint plug						
	JS-B	1001165	B-45		230 mm	○ White
	JS-M	1000806	B-45		230 mm	● Brown
	JS-C	2130213	C-15		230 mm	● Copper
	Ref.	Code	Units/Pack	Units/Pallet	Perimeter	Colour
3 m downspout pipe Ø90 adhesive joint						
	TC-90-3B	1002891	3	69	230 mm	○ White
	TC-90-3M	1002892	3	69	230 mm	● Brown
	TC-90-3C	2130070	3	69	230 mm	● Copper

*Article manufactured to order. Consult delivery times.

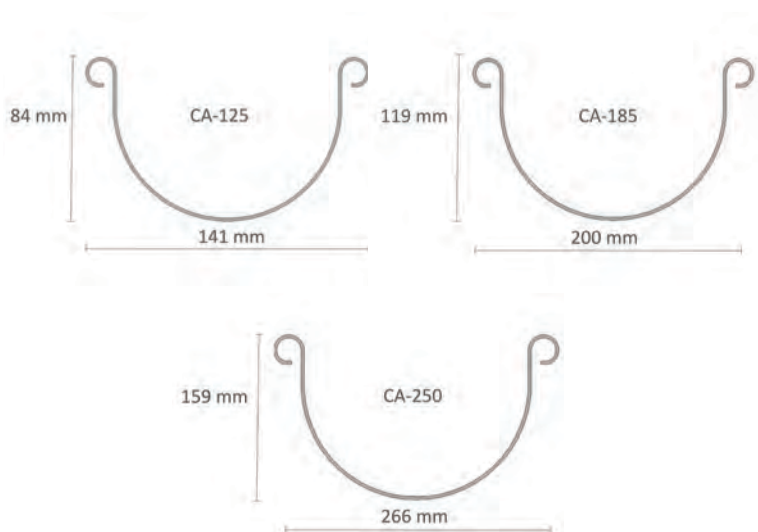
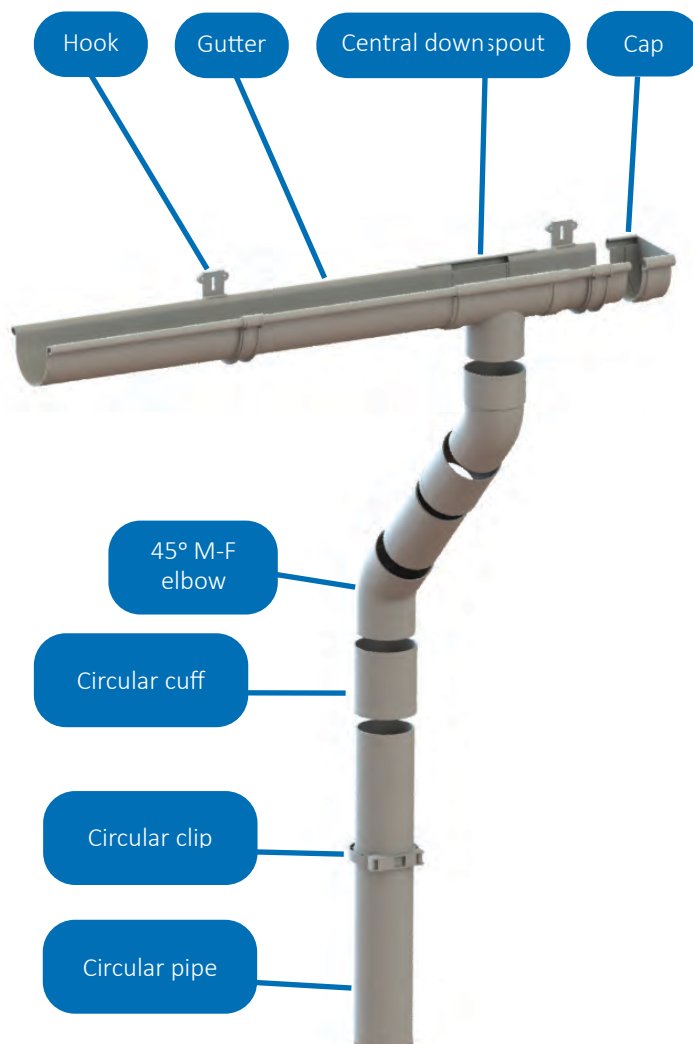


Consult the references of other gutter ranges at www.molecor.com

3. adequa® circular double volute gutter

Gutter with a symmetrical, almost semicircular cross-section with folds at the upper ends to grant it rigidity and resistance to bending, while also serving as an attachment component for different parts.

Model	CA-125	CA-185	CA-250
Size Width x Height (mm)	141x84	200x119	266x159
Perimeter (mm)	270	390	530
Useful cross- section (cm ²)	57.2	133.3	237
Profile length (m)	4	4	4
Downspout Ø	90	110	125
Colours acc. to ref.	● Light grey CA-125-C, CA-185-C and CA-250-C (RAL 9018) ● Dark grey CA-125-CR and CA-185-CR (RAL 7037) ● Brown CA-125-CM and CA-185-CM (RAL 8017)		

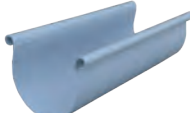


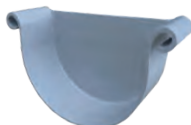
3.1. Advantages and characteristics of the adequa® circular double volute gutter

- Robust, durable gutter made via PVC extrusion and **suitable for any weather conditions.**
 - Long profile **reinforced at both ends to achieve greater durability and extend its useful life thanks to the increased rigidity offered by its double volute.**
 - The symmetrical profile facilitates gutter installation and reduces the variety of pieces necessary during assembly.
 - The system has a **greater capacity for rainwater drainage** thanks to its large cross-section.
 - Manufactured in perimeters of 270 mm (Ø125), 390 mm (Ø185) and 530 mm (Ø250), **available in three colours** (light grey, dark grey and brown) **and in lengths of 4 m.**
 - Fittings manufactured via PVC injection, in the same colour and sheen as the gutter.
- 
- Manufactured with raw materials and additives (titanium dioxide and UVA radiation stabilisers) that protect it from the weather's effects.
 - The **fittings** for circular double volute gutters **include elastic joints** to create a secure connection between the rainwater collection system's parts and **guarantee complete watertightness along their length.**
 - **Downspout with circular cross-section** and a length of 3 m, **available in the same colours as the gutter and its fittings.**
 - Has a circular clip with built-in closure, male-female elbow, single male-female branch, circular cuff and tapers.
 - The gutter profile reference compatible with each downspout diameter is as follows:
 - CA-125 compatible with a Ø90 mm downspout.
 - CA-185 compatible with a Ø110 mm downspout.
 - CA-250 compatible with a Ø125 mm downspout.



3.2. Component range for the adequa® circular double volute gutter

	Model	Ref.	Code	Units/Pack	Units/Pallet	Perimeter	Colour
4 m gutter							
	CA-125-C	100-C	1002366	10	85	270 mm	
	CA-185-C	150-C	1002367	10	60	390 mm	● Light grey
	CA-250-C	200-C	1002372	6	36	530 mm	
	CA-125-CR	100-CR	1002359	10	85	270 mm	● Dark grey
	CA-185-CR	150-CR	1002360	10	60	390 mm	
	CA-125-CM	100-CM	2142057	10	85	270 mm	● Brown
	CA-185-CM	150-CM	1002365	10	60	390 mm	
	Model	Ref.	Code	Box/Units		Perimeter	Colour
Profile joint							
	CA-125-C	101-C	1000851	E-10		270 mm	
	CA-185-C	151-C	1000886	D-10		390 mm	● Light grey
	CA-250-C	201-C	1000893	C-10		530 mm	
	CA-125-CR	101-CR	1001569	E-10		270 mm	● Dark grey
	CA-185-CR	151-CR	1001643	D-10		390 mm	
	CA-125-CM	101-CM	2142058	E-10		270 mm	● Brown
	CA-185-CM	151-CM	1000787	D-10		390 mm	
Circular central downspout							
 CA-125-Ø90 CA-185-Ø110 CA-250-Ø125	CA-125-C	102-C	1000848	D-5		270 mm	
	CA-185-C	152-C	1000881	C-5		390 mm	● Light grey
	CA-250-C	202-C	1000878	B-5		530 mm	
	CA-125-CR	102-CR	1001562	D-5		270 mm	● Dark grey
	CA-185-CR	152-CR	1001623	C-5		390 mm	
	CA-125-CM	102-CM	2142059	D-5		270 mm	● Brown
	CA-185-CM	152-CM	1000776	C-5		390 mm	
Corner							
	CA-125-C	103-C	1000840	E-4		270 mm	
	CA-185-C	153-C	1000888	C-4		390 mm	● Light grey
	CA-250-C	203-C	1001105	B-4		530 mm	
	CA-125-CR	103-CR	1001549	E-4		270 mm	● Dark grey
	CA-185-CR	153-CR	1001647	C-4		390 mm	
	CA-125-CM	103-CM	2142060	E-4		270 mm	● Brown
	CA-185-CM	153-CM	1000789	C-4		390 mm	

	Model	Ref.	Code	Box/Units	Perimeter	Colour
Gutter cap						
	CA-125-C	104-C	1000897	F-10	270 mm	
	CA-185-C	154-C	1000894	D-10	390 mm	● Light grey
	CA-250-C	204-C	1000885	B-25	530 mm	
	CA-125-CR	104-CR	1001677	F-10	270 mm	● Dark grey
	CA-185-CR	154-CR	1001663	D-10	390 mm	
	CA-125-CM	104-CM	2142061	F-10	270 mm	● Brown
	CA-185-CM	154-CM	1000797	D-10	390 mm	
Cap for parts						
	CA-125-C	105-C	1000898	I-10	270 mm	
	CA-185-C	155-C	1000876	J-10	390 mm	● Light grey
	CA-250-C	205-C	1000899	C-10	530 mm	
	CA-125-CR	105-CR	1001683	I-10	270 mm	● Dark grey
	CA-185-CR	155-CR	1001609	J-10	390 mm	
	CA-125-CM	105-CM	2142062	I-10	270 mm	● Brown
	CA-185-CM	155-CM	1000766*	J-10	390 mm	
Hook						
	CA-125-C	106-C	1000872	D-35	270 mm	
	CA-185-C	156-C	1000845	C-35	390 mm	● Light grey
	CA-250-C	206-C	1000884	B-35	530 mm	
	CA-125-CR	106-CR	1001606	D-35	270 mm	● Dark grey
	CA-185-CR	156-CR	1001556	C-35	390 mm	
	CA-125-CM	106-CM	2142063	D-35	270 mm	● Brown
	CA-185-CM	156-CM	1000724	C-35	390 mm	

*Article manufactured to order. Consult delivery times.



Consult the references of other gutter ranges at www.molecor.com

3.3. Joint system / Expansion control

Joint systems

The circular double volute gutter by **Molecor** has fittings to connect it via an elastic joint.

All fittings are marked with the correct position for the gutter to be installed, marked on the bottom of fittings with the words "Gutter Position" and a dashed line showing the position. The gutter cut must have the right length and the cut must be perpendicular.

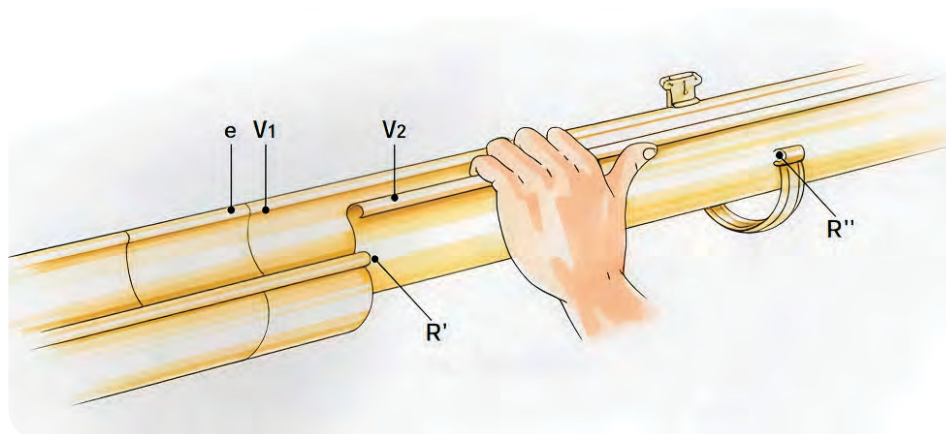
The gutter is installed by following these steps:

- 1 Insert one of the volutes (V1) into the ridge (e) of the fittings and hooks.
- 2 Apply pressure and adjust the closed edge (V2) on the ridges of the fittings (R') and hooks (R'').
- 3 Attach the caps.



Expansion control

The gutter must be able to slide freely through the hooks, allowing it to expand as normal inside the fitting.

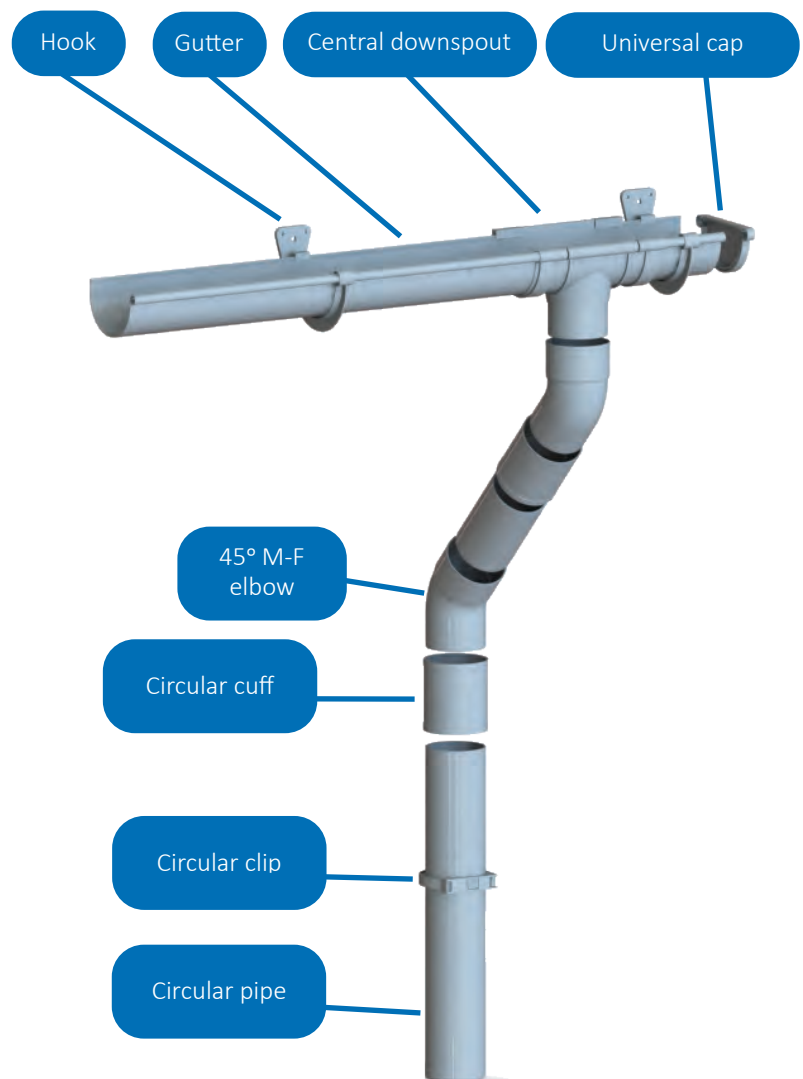


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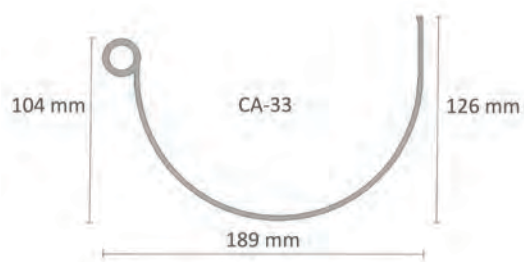
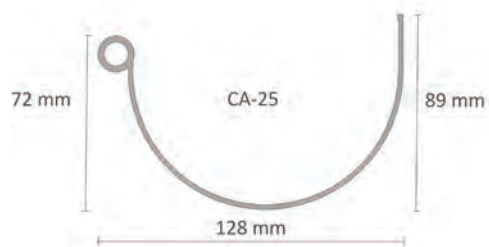
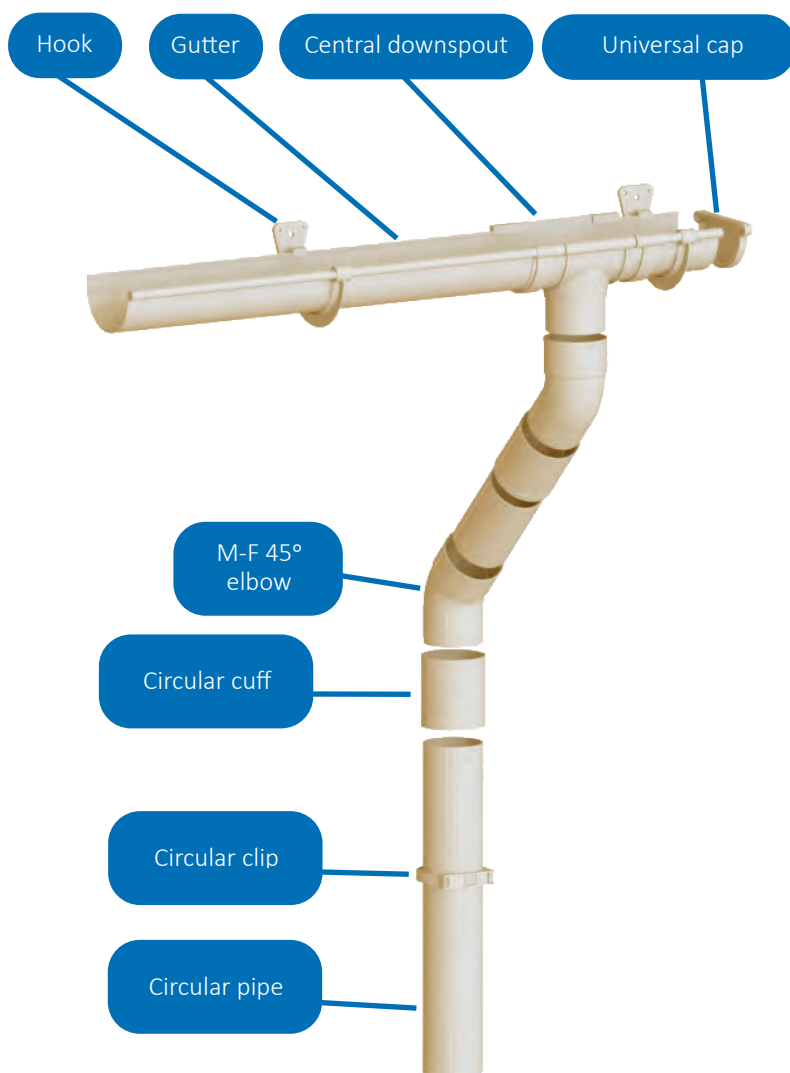
4. adequa® circular single volute gutter

Rainwater drainage gutter with a circular cross-section, closed ridge (volute) and a reinforced heel, which grants it perfect longitudinal rigidity without affecting its transversal flexibility.

Model	CA-25	CA-33
Size Width x Height (mm)	128x89	189x126
Perimeter (mm)	250	330
Useful cross- section (cm²)	54.5	119.5
Profile length (m)	3	3
Downspout Ø	90	110
Colours acc. to ref.	○ White CA-25-B and CA-33-B (RAL 9016) ● Dark grey CA-25-R and CA-33-R (RAL 7037) ● Copper CA-25-C (RAL 8008)	



Model	CA-25	CA-33
Size Width x Height (mm)	128x89	189x126
Perimeter (mm)	250	330
Useful cross- section (cm ²)	54.5	119.5
Profile length (m)	4	4
Downspout Ø	80	100
Colours acc. to ref.	● Light grey CA-25-G and CA-33-G (RAL 9018) ● Sand CA-25-S and CA-33-S (RAL 1015)	



4.1. Advantages and characteristics of the adequa® circular single volute gutter

- Robust, durable gutter made via PVC extrusion and **suitable for any weather conditions.**
- Adapts to the roof's geometry and is **available in five colours: white, dark grey and copper in lengths of 3 m, and sand and light grey in lengths of 4 m.**
- Fittings manufactured via PVC injection, in the same colour and sheen as the gutter.
- Manufactured with raw materials and additives (titanium dioxide and UVA radiation stabilisers) that protect it from the weather's effects.
- Connection with elastic joint: connection, central downspout, left outer downspout, right outer downspout, inner angle, outer angle and universal cap.
- Adhesive joint: connection, central downspout, universal angle, universal cap for parts and gutter cap.
- **Downspout with circular cross-section, in lengths of 3 and 4 m, available in the same colours as the gutter and its fittings.**
- Clips with built-in closure, elbows, branches, cuffs and tapers are also available to complete the design.
- The gutter profile reference compatible with each downspout diameter is as follows:
 - CA-25 elastic joint connection compatible with Ø90 mm downspout.
 - CA-25 adhesive joint compatible with Ø80 mm downspout.
 - CA-33 elastic joint compatible with Ø110 mm downspout, except in sand colour, which is compatible with Ø100 mm.



4.2. Component range for the adequa® circular single volute gutter

	Ref.	Code	Units/ Pack	Units/ Pallet	Perimeter	Joint	Colour
3 m gutter							
	CA-25-B	1002396	10	150	250 mm	Elastic	○ White
	CA-33-B	1002399	5	70	330 mm	Elastic	
	CA-25-R	1002395	10	150	250 mm	Elastic	● Dark grey
	CA-33-R	1002398	5	70	330 mm	Elastic	
	CA-25-C	2141251	10	150	250 mm	Elastic	● Copper
	Ref.	Code	Box/Units		Perimeter	Joint	Colour
Profile joint							
	UD-25-B	1001171	E-10		250 mm	Elastic	○ White
	UD-33-B	1000956	D-10		330 mm	Elastic	
	UD-25-R	1000663	E-10		250 mm	Elastic	● Dark grey
	UD-33-R	1001321	D-10		330 mm	Elastic	
	UD-25-C	2141253	E-10		250 mm	Elastic	● Copper
Circular central downspout							
 CA-25-Ø90 CA-33-Ø110	BC-25-B	1001176	D-5		250 mm	Elastic	○ White
	BC-33-B	1000958	C-5		330 mm	Elastic	
	BC-25-R	1000669	D-5		250 mm	Elastic	● Dark grey
	BC-33-R	1001326	C-5		330 mm	Elastic	
	BC-25-C	2141254	D-5		250 mm	Elastic	● Copper
Left outer downspout							
 CA-25-Ø90 CA-33-Ø110	BI-25-B	1001180	D-5		250 mm	Elastic	○ White
	BI-33-B	1000960	C-5		330 mm	Elastic	
	BI-25-R	1000676	D-5		250 mm	Elastic	● Dark grey
	BI-33-R	1001332	C-5		330 mm	Elastic	
	BI-25-C	2141859	D-5		250 mm	Elastic	● Copper
Right outer downspout							
 CA-25-Ø90 CA-33-Ø110	BD-25-B	1001183	D-5		250 mm	Elastic	○ White
	BD-33-B	1000964	C-5		330 mm	Elastic	
	BD-25-R	1000683	D-5		250 mm	Elastic	● Dark grey
	BD-33-R	1001340	C-5		330 mm	Elastic	
	BD-25-C	2141860	D-5		250 mm	Elastic	● Copper

Ref.	Code	Box/Units	Perimeter	Joint	Colour
Inner angle					
	AI-25-B	1001185	D-4	250 mm	Elastic
	AI-33-B	1000970*	C-4	330 mm	Elastic
	AI-25-R	1000689	D-4	250 mm	Elastic
	AI-33-R	1001349	C-4	330 mm	Elastic
	AI-25-C	2141855	D-4	250 mm	Elastic
Outer angle					
	AE-25-B	1001188	D-4	250 mm	Elastic
	AE-33-B	1000972*	C-4	330 mm	Elastic
	AE-25-R	1000693	D-4	250 mm	Elastic
	AE-33-R	1001354	C-4	330 mm	Elastic
	AE-25-C	2141256	D-4	250 mm	Elastic
Universal cap					
	TU-25-B	1001193	I-10	250 mm	Elastic
	TU-33-B	1001203	J-10	330 mm	Elastic
	TU-25-R	1000702	I-10	250 mm	Elastic
	TU-33-R	1001764	J-10	330 mm	Elastic
	TU-25-C	2141255	I-10	250 mm	Elastic
Gutter hook					
	GB-25-PB	1001442	D-35	250 mm	Elastic
	GB-33-PB	1001187	C-35	330 mm	Elastic
	GB-25-PR	1000890	D-35	250 mm	Elastic
	GB-33-PR	1001735	C-35	330 mm	Elastic
	GB-25-PC	2141257	D-35	250 mm	Elastic

*Article manufactured to order. Consult delivery times.



White - RAL 9016



Dark grey - RAL 7037



Copper - RAL 8008

Consult the references of other gutter ranges at www.molecor.com

	Ref.	Code	Units/ Pack	Units/ Pallet	Perimeter	Joint	Colour
4 m gutter							
	CA-33-G	1002408	5	70	330 mm	Elastic	● Light grey
	CA-33-S	1002394	5	70	330 mm	Elastic	● Sand
	Ref.	Code	Box/Units		Perimeter	Joint	Colour
Profile joint							
	UD-33-G	1000924	D-10		330 mm	Elastic	● Light grey
	UD-33-S	1000995	D-10		330 mm	Elastic	● Sand
Circular central downspout							
 Ø100	BCT-33-G	1000926	C-5		330 mm	Elastic	● Light grey
	BCT-33-S	1001000	C-5		330 mm	Elastic	● Sand
Left outer downspout							
 Ø100	BIT-33-G	1000929	C-5		330 mm	Elastic	● Light grey
	BIT-33-S	1001003	C-5		330 mm	Elastic	● Sand
Right outer downspout							
 Ø100	BDT-33-G	1000932	C-5		330 mm	Elastic	● Light grey
	BDT-33-S	1001006	C-5		330 mm	Elastic	● Sand
Inner angle							
	AI-33-G	1000936	C-4		330 mm	Elastic	● Light grey
	AI-33-S	1001010	C-4		330 mm	Elastic	● Sand
Outer angle							
	AE-33-G	1000940	C-4		330 mm	Elastic	● Light grey
	AE-33-S	1001012	C-4		330 mm	Elastic	● Sand
Universal cap							
	TU-33-G	1000901	J-10		330 mm	Elastic	● Light grey
	TU-33-S	1001544	J-10		330 mm	Elastic	● Sand
Gutter hook							
	GB-33-PG	1001080	C-35		330 mm	Elastic	● Light grey
	GB-33-PS	1001158	C-35		330 mm	Elastic	● Sand

	Ref.	Code	Units/ Pack	Units/ Pallet	Perimeter	Joint	Colour
4 m gutter							
	CA-25-G	1002409	10	150	250 mm	Adhesive	● Light grey
	CA-25-S	1002407	10	150	250 mm	Adhesive	● Sand
	Ref.	Code	Box/Units		Perimeter	Joint	Colour
Profile joint							
	UD-25-EG	1001748	I-10		250 mm	Adhesive	● Light grey
	UD-25-ES	1000608	I-10		250 mm	Adhesive	● Sand
Central downspout							
 ø80	BCR-25-EG	1001765	D-5		250 mm	Adhesive	● Light grey
	BCR-25-ES	1000623	D-5		250 mm	Adhesive	● Sand
Central expansion downspout							
 ø80	BCR-25-DG	1001772	D-5		250 mm	Adhesive	● Light grey
	BCR-25-DS	1000630	D-5		250 mm	Adhesive	● Sand
Universal angle							
	AU-25-EG	1001752	J-4		250 mm	Adhesive	● Light grey
	AU-25-ES	1000612	J-4		250 mm	Adhesive	● Sand
Universal cap for parts							
	TA-25-EG	1001784	I-10		250 mm	Adhesive	● Light grey
	TA-25-ES	1000641	I-10		250 mm	Adhesive	● Sand
Gutter cap							
	TU-25-G	1001745	I-10		250 mm	Adhesive	● Light grey
	TU-25-ES	1001852	I-10		250 mm	Adhesive	● Sand
Hook							
	GB-25-PG	1000785	D-35		250 mm	Adhesive	● Light grey
	GB-25-PS	1000839	D-35		250 mm	Adhesive	● Sand



Light grey - RAL 9018



Sand - RAL 1015

Consult the references of other gutter ranges at www.molecor.com

4.3. Joint system / Expansion control

Joint systems

The circular single volute gutter by **Molecor** has fittings to connect it via an elastic or adhesive joint.

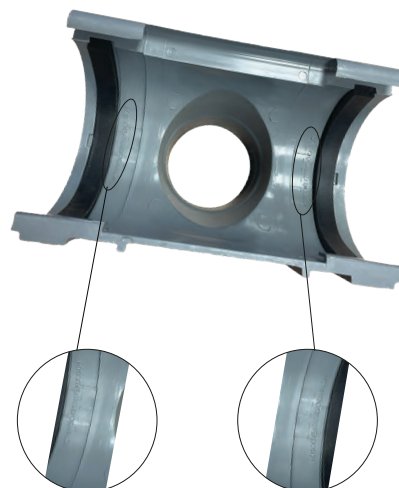
In the case of connections via elastic joints, follow the position marker that is on the underside of the fittings ("Gutter End Position") with a line showing the position. The gutter cut must have the right length and the cut must be perpendicular.

When dealing with a fitting to be glued, cover the fitting's grooves and the end of the gutter with a layer of strong adhesive, and remove any excess glue.

For easier assembly, do not connect the gutter to the hooks until glued with the section already installed.

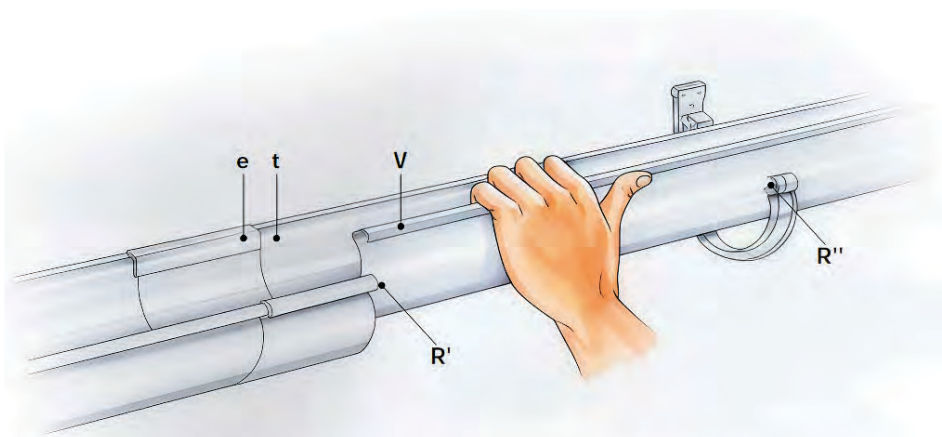
The gutter is installed by following these steps:

- 1 Insert the reinforced heel (t) into the bracket (e) of the fittings and hooks.
- 2 Apply pressure and adjust the closed edge (V) on the ridges of the fittings (R') and hooks (R'').
- 3 Install the caps.



Expansion control

In gutter systems, fittings are fixed points at which the gutter must be able to expand normally. The gutter must be able to slide freely through the hooks.

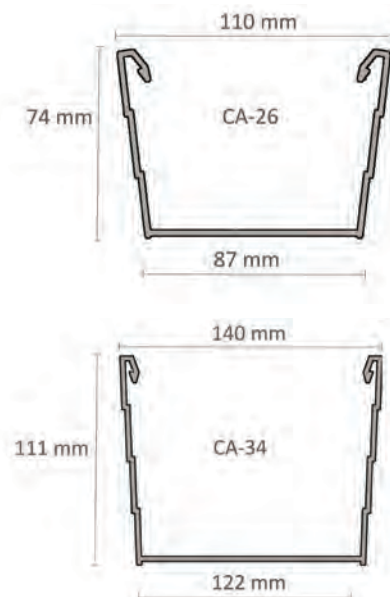
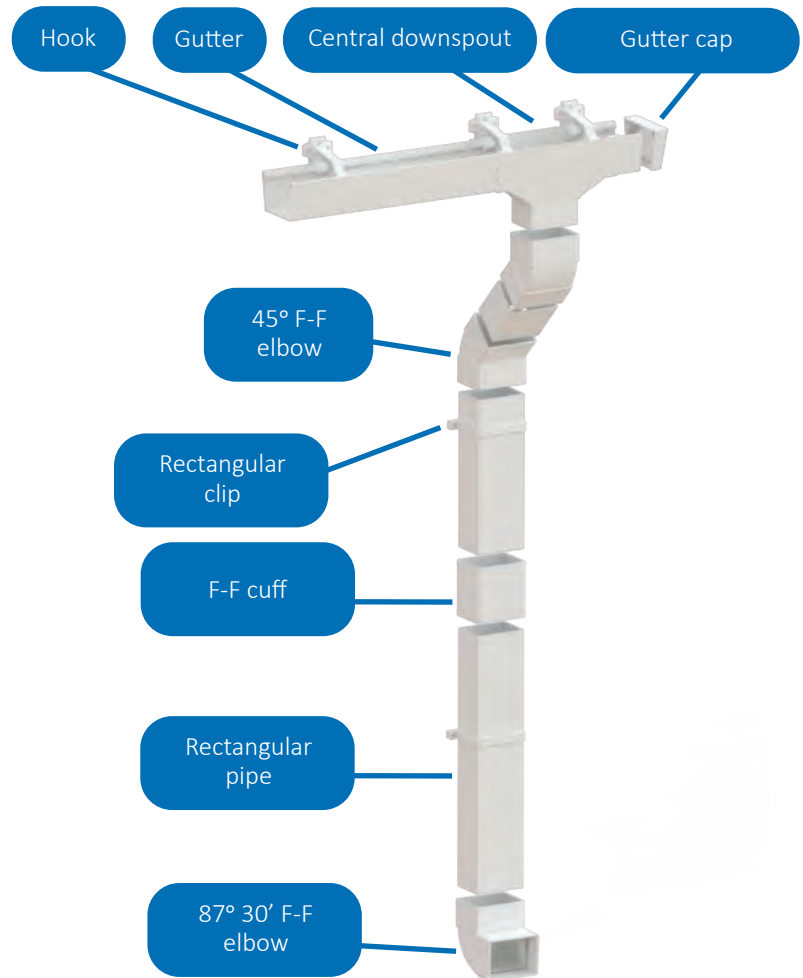


The specifications related to assembly are provided as a guide and under no circumstances is **Molecor** liable in this regard. The user is responsible for assessing whether these instructions are suitable for their installation or whether they should be more restrictive, according to the installation's constraints.

5. adequa® trapezoidal gutter

Also called a decorative gutter, it has a symmetrical trapezoidal cross-section with a straight base and graduated sides for improved rigidity. The trapezoidal gutter easily adapts to the aesthetics and drainage needs of every roof.

Model	CA-26	CA-34
Size Width x Height (mm)	110x74	140x111
Perimeter (mm)	260	340
Useful cross- section (cm²)	67.6	132.5
Profile length (m)	3	3
Downspout Ø	100x73 and 90	100x73 and 90
Colours acc. to ref.	○ White CA-26-B and CA-34-B (RAL 9016) ● Dark grey CA-26-R (RAL 7037) ● Brown CA-26-M (RAL 8017)	



5.1. Advantages and characteristics of the adequa® trapezoidal gutter

- Robust, durable gutter made via PVC extrusion and **suitable for any weather conditions.**
 - Adapts to the roof's geometry and is **available in three colours: white, dark grey and brown.**
 - Manufactured in perimeters of 260 mm (CA-26) and 340 mm (CA-34) and in **lengths of 3 m.**
 - Smaller cross-section that blends in with the building's frontage.
 - Fittings manufactured via PVC injection, in the same colour and sheen as the gutter.
- 
- Manufactured with raw materials and additives (titanium dioxide and UVA radiation stabilisers) that protect it from the weather's effects.
 - **Depending on the fitting** installed at the central downspout's outlet, **the downspouts will be rectangular or circular.**
 - Rectangular, with a **perimeter of 100x73 mm**, available in the same colours as the gutter and its fittings, and with a **length of 3 m.**
 - Fittings: rectangular downspout, rectangular cuff, 45° rectangular female-female elbow, 87° 30' rectangular female-female elbow, 45° rectangular female-female elbow for change of direction, rectangular clip.
 - The rectangular transition cuff (100x73) is used to connect to a **circular outlet of Ø90 mm** and, therefore, all **circular cross-section downspout fittings** can be used.
 - The gutter profile reference compatible with each downspout diameter is as follows:
 - CA-26/CA-34 use a rectangular downspout with a perimeter of 100x73 mm.
 - CA-26/CA-34 use a circular downspout of Ø90 mm.



5.2. Component range for the adequa® trapezoidal gutter

	Ref.	Code	Units/ Pack	Units/ Pallet	Perimeter	Joint	Colour
3 m gutter							
	CA-26-B	1004562	4	144	260 mm	Adhesive	○ White
	CA-34-B	1002370	4	84	340 mm	Adhesive	
	CA-26-R	1004563	4	144	260 mm	Adhesive	● Dark grey
	CA-26-M	1004564	4	144	260 mm	Adhesive	● Brown
	Ref.	Code	Box/Units		Perimeter	Joint	Colour
Profile joint							
	UD-26-B	1000903	I-10		260 mm	Adhesive	○ White
	UD-34-B	1000625	J-10		340 mm	Adhesive	
	UD-26-R	1001248	I-10		260 mm	Adhesive	● Dark grey
	UD-26-M	1001705	I-10		260 mm	Adhesive	● Brown
Central downspout							
 100x73	BC-26-B	1000904	C-10		260 mm	Adhesive	○ White
	BC-34-B	1000637	B-7		340 mm	Adhesive	
	BC-26-R	1001253	C-10		260 mm	Adhesive	● Dark grey
	BC-26-M	1001715	C-10		260 mm	Adhesive	● Brown
Universal angle							
	AU-26-B	1000907	I-4		260 mm	Adhesive	○ White
	AU-34-B	1000646	D-4		340 mm	Adhesive	
	AU-26-R	1001258	I-4		260 mm	Adhesive	● Dark grey
	AU-26-M	1001726	I-4		260 mm	Adhesive	● Brown
Gutter							
	TC-26-B	1000916	I-10		260 mm	Adhesive	○ White
	TC-34-B	1000656	I-10		340 mm	Adhesive	
	TC-26-R	1001267	I-10		260 mm	Adhesive	● Dark grey
	TC-26-M	1001739	I-10		260 mm	Adhesive	● Brown
Hook on vertical strip							
	GB-26-PB	1000978	D-35		260 mm	Adhesive	○ White
	GB-34-PB	1000746	D-35		340 mm	Adhesive	
	GB-26-PR	1001368	D-35		260 mm	Adhesive	● Dark grey
	GB-26-PM	1001828	D-35		260 mm	Adhesive	● Brown

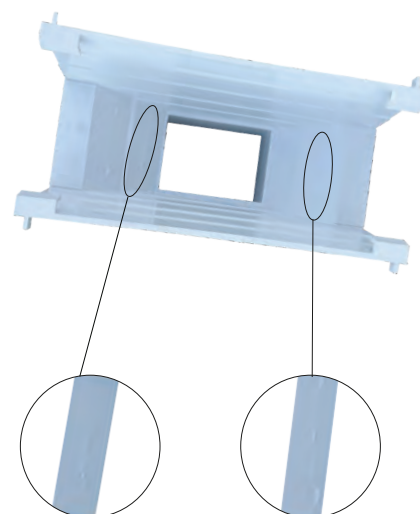
	Ref.	Code	Units/Pack	Units/Pallet	Colour
3 m rectangular pipe					
 100x73	TT-B	1004560	4	52	○ White
	TT-R	1002400	4	52	● Dark grey
	TT-M	1002402	4	52	● Brown
	Ref.	Code	Box/Units		Colour
Rectangular cuff					
	JTP-B	1000922	D-12		○ White
	JTP-R	1001275	D-12		● Dark grey
	JTP-M	1001743	D-12		● Brown
45° F-F rectangular elbow					
	CTP-4-B	1001008	C-15		○ White
	CTP-4-R	1001419	C-15		● Dark grey
	CTP-4-M	1000618	C-15		● Brown
87° 30' F-F rectangular elbow					
	CTP-8-B	1001071	C-15		○ White
	CTP-8-R	1001533	C-15		● Dark grey
	CTP-8-M	1000711	C-15		● Brown
45° F-F rectangular elbow (change of direction)					
	CTV-4-B	1001095	C-15		○ White
	CTV-4-R	1001575	C-15		● Dark grey
	CTV-4-M	1000733	C-15		● Brown
Rectangular clip					
	100X73-B	1000191	E-35		○ White
	100X73-R	1000193	E-35		● Dark grey
	100X73-M	1000196	E-35		● Brown
Cuff for transition to circular downspout					
 100x73 ø90	MTS-B	1000664	D-10		○ White
	MTS-R	1001017	D-10		● Dark grey
	MTS-M	1001260	D-10		● Brown
Double transition cuff					
 100x73	MTS-D-B	1000685	D-10		○ White
	MTS-D-R	1001029	D-10		● Dark grey
	MTS-D-M	1001272	D-10		● Brown

5.3. Joint system / Expansion control

Joint systems

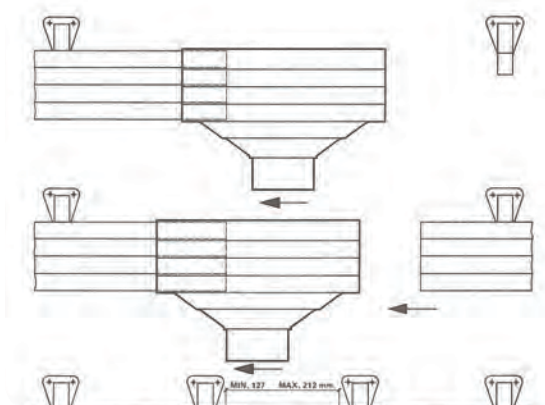
These fittings for the trapezoidal gutter are always glued, since they're designed to be assembled on the profile via simple cold gluing: connection, universal angle, central downspout and cap.

Additionally, the central downspout fittings are marked on their insides with the letters "I" (for "invierno", which is "winter" in Spanish) and "V" (for "verano", which is "summer" in Spanish), which are the positions in which the gutter should be inserted, depending on when it is being installed, at 0° and 40° respectively. For other temperatures, intermediate positions should be used.



Expansion control

The longitudinal variations in the gutter owing to changes in temperature are absorbed by the central downspouts, through whose interior the gutter slides, with the maximum distance between them limited to 9 metres.



The specifications related to assembly are provided as a guide and under no circumstances is [Molecor](#) liable in this regard. The user is responsible for assessing whether these instructions are suitable for their installation or whether they should be more restrictive, according to the installation's constraints.

6. Range of accessories

6.1. PLUNIA®, adequa® single volute and trapezoidal gutter platens

	Ref.	Code	Box/Units	Perimeter
Platen for strap (horizontal placement)				
	EGCL	7000488	E-30	33 cm
	EGC	7000465	E-30	19 cm
Platen for strap (vertical placement)				
	EGCC	7000489	E-30	33 cm
Platen for corrugated roof				
	EGO	7000466	E-30	33 cm
Platen for tile				
	EGT	7000467	E-30	33 cm

Each box contains a bag of screws to attach the metal platen to the plastic hook.

6.2. adequa® double volute gutter platens

	Description	Code	Box/Units
IPN/plate gutter bracket			
	CA-125/185	7000733	E-30
	CA-250	7003358	E-30
Wooden gutter bracket			
	CA-125/185	7000730	E-30

The brackets are supplied without screws or nuts.

6.3. Circular downspout and fittings

Ø	Ref.	Code	No. pipes/pal. & units/pack	Colour
Adhesive joint circular downspout pipe				
3 m				
75	TC-75-3B	1004731	68/4	○ White
90	TC-90-3B	1002891	69/3	
110	TC-110-3B	1002890	75/3	
75	TC-75-3G	2142596	68/4	● Light grey
90	TC-90-3G	2142597	69/3	
110	TC-110-3G	2142598	75/3	
125	TC-125-3G	2142599	54	
75	TC-75-3R	2138058	68/4	● Dark grey
90	TC-90-3R	2138059	69/3	
110	TC-110-3R	2138061	75/3	
80	TC-80-3S	110053	104/4	● Sand
90	TC-90-3M	1002892	69/3	● Brown
110	TC-110-3M	1002893	75/3	
90	TC-90-3C	2130070	69/3	● Copper
4 m				
80	TC-80-4G	1002416	104/4	● Light grey
100	TC-100-4G	1002417	66/3	
80	TC-80-4S	1004733	104/4	● Sand
100	TC-100-4S	1002406	66/3	

Ø	Ref.	Code	Box/Units	Colour
Circular clip with built-in closure				
75	COL-75-B	1001235	E-35	○ White
90	COL-90-B	1001426	D-60	
110	COL-110-B	1001051	C-50	
80	COL-80-G	1001451	E-20	● Light grey
90	COL-90-G	2136817	D-60	
100	COL-100-G	1001457	E-20	
110	COL-110-G	2136818	C-50	
75	COL-75-R	1000781	E-35	● Dark grey
90	COL-90-R	1000784	E-25	
110	COL-110-R	1001487	C-50	
90	COL-90-M	1000891	D-60	● Brown
110	COL-110-M	1000679	C-50	
90	COL-90-C	2130167	E-25	● Copper
80	COL-80-S	1000668	E-20	● Sand
100	COL-100-S	1000675	E-20	

Ø	Ref.	Code	Box/Units	Colour
45° M-F elbow adhesive joint				
75	CP-4-B	1001281	B-50	○ White
90	CS-4-B	1001284	B-30	
110	CV-4-B	1001287	A-50	
80	CR-4-G	1001599	C-25	● Light grey
100	CT-4-G	1001603	B-25	
75	CP-4	1001297	B-50	● Dark grey
90	CS-4	1001299	A-90	
110	CV-4	1001301	A-60	
90	CS-4-M	1000908	B-30	● Brown
110	CV-4-M	1000913	A-50	
90	CS-4-C	2130168	C-15	● Copper
80	CR-4-S	1001727	C-25	● Sand
100	CT-4-S	1001733	B-25	



Ø	Ref.	Code	Box/Units	Colour
67° 30' M-F elbow adhesive joint				
75	CP-6-B	1001309	B-40	○ White
90	CS-6-B	1001313	B-25	
80	CR-6-G	1001025	C-20	● Light grey
100	CT-6-G	1001782	B-20	
75	CP-6	1001350	B-40	● Dark grey
90	CS-6	1001355	B-25	
110	CV-6	1000079	A-35	
90	CS-6-M	1000942	B-25	● Brown
110	CV-6-M	1000195	A-35	
90	CS-6-C	2130169	C-12	● Copper
80	CR-6-S	1001770	C-20	● Sand
100	CT-6-S	1001036	B-20	



Ø	Ref.	Code	Box/Units	Colour	
87° 30' M-F elbow adhesive joint					
	75	CP-8-B	1001369	B-40	○ White
	90	CS-8-B	1001375	B-30	
	110	CV-8-B	1001380	A-40	
	80	CR-8-G	1001357	C-20	● Light grey
	100	CT-8-G	1001362	B-15	
	75	CP-8	1001401	B-40	● Dark grey
	90	CS-8	1001405	A-65	
	110	CV-8	1001411	A-45	
	90	CS-8-M	1000961	B-30	● Brown
	110	CV-8-M	1000965	A-40	
	90	CS-8-C	2130170	C-15	● Copper
	80	CR-8-S	1001501	C-20	● Sand
	100	CT-8-S	1001511	B-15	

	Ø	Ref.	Code	Box/Units	Colour
	40° F-F elbow adhesive joint				
	80	CR-44-G	1001624	C-20	● Light grey
	100	CT-44-G	1001632	B-20	
	80	CR-44-S	1001746	C-20	● Sand
	100	CT-44-S	1001750	B-20	

	Ø	Ref.	Code	Box/Units	Colour
67° 30' F-F elbow adhesive joint					
	80	CR-66-G	1001776*	C-20	● Light grey
	100	CT-66-G	1001402	B-20	
	80	CR-66-S	1001031	C-20	● Sand
	100	CT-66-S	1001554	B-20	

	Ø	Ref.	Code	Box/Units	Colour
87° 30' F-F elbow adhesive joint					
	80	CR-88-G	1001407*	C-20	● Light grey
	100	CT-88-G	1001413	B-15	
	80	CR-88-S	1001559	C-20	● Sand
	100	CT-88-S	1001565	B-15	

*Article manufactured to order. Consult delivery times.

Ø	Ref.	Code	Box/Units	Colour	
	45° M-F single branch adhesive joint				
	90	BS-14-B	1001775	B-10	○ White
	80	BR-14-G	1001489	B-20	● Light grey
	75	BP-14	1001796	A-40	● Dark grey
	90	BS-14	1001800	A-25	
	110	BV-14	1000084	A-20	● Brown
	90	BS-14-M	1001190	B-12	
	90	BS-14-C	2130211*	B-12	● Copper
	80	BR-14-S	1001640	B-20	● Sand
100	BT-14-S	1001644	A-20		

	Ø	Ref.	Code	Box/Units	Colour
	67° 30' M-F single branch adhesive joint				
	100	BT-16-G	1001508	A-25	● Light grey
	75	BP-16	1001830	A-50	● Dark grey
	90	BS-16	1001835	A-35	
	110	BV-16	1001840	A-20	
110	BT-16-S	1001649	A-25	● Sand	

Ø	Ref.	Code	Box/Units	Colour	
	87° 30' M-F single branch adhesive joint				
	90	BS-18-B	1001850	A-30	○ White
	110	BV-18-B	1001853	A-25	
	75	BP-18	1000619	A-50	● Dark grey
	90	BS-18	1000627	A-30	
	110	BV-18	1000632	A-25	
	90	BS-18-M	1001227*	B-15	● Brown
	110	BV-18-M	1001228*	A-25	
90	BS-18-C	2130212*	B-15	● Copper	

	Ø	Ref.	Code	Box/Units	Colour
F-F connection cuff elastic joint					
	75	KP-2-KI	1000712*	C-20	● Dark grey
	90	KS-2-KI	1000714*	B-45	
	110	KV-2-KI	1000717*	B-25	

*Article manufactured to order. Consult delivery times.

Ø	Ref.	Code	Box/Units	Colour
Circular connection cuff adhesive joint				
	75	JP-B	1001163	C-35
	90	JS-B	1001165	B-45
	110	JV-B	1001179	A-65
	80	JR-G	1001799	D-15
	100	JT-G	1001804	B-35
	75	JP	1001184	C-35
	90	JS	1001186	B-45
	110	JV	1001189	A-55
	90	JS-M	1000806	B-45
	110	JV-M	1000807*	A-65
	90	JS-C	2130213	C-15
	80	JR-S	1000662	D-15
	100	JT-S	1000667	B-35

Ø	Ref.	Code	Box/Units	Colour
Eccentric taper adhesive joint				
	90/75	IS-2-CB	1001222	C-30
	110/90	IV-2-CB	1001015	B-35
	90/75	IS-2-CR	1000737	C-30
	110/90	IV-2-CR	1001434	B-35
	125/110	IX-1-CR	1001441	A-40

Ø	Ref.	Code	Box/Units	Colour
Eccentric taper elastic joint				
	90/75	IS-2-CKB	1101495	C-30
	90/75	IS-2-CKI	1000843	C-30
	110/90	IV-2-CKI	1000832	C-25
	125/110	IX-1-CKI	1000842	B-20
	110/90	IV-2-CKR	1001446	C-25
	110/90	IV-2-CKM	1001302*	C-25

*Article manufactured to order. Consult delivery times.

Ø	Ref.	Code	Box/Units	Colour
450 M-F elbow elastic joint				
	75	CP-4-KI	1001346	● Light grey
	90	CS-4-KI	1001352	
	110	CV-4-KI	1001358	
	125	CX-4-KI	1001363	

Ø	Ref.	Code	Box/Units	Colour
67° 30' M-F elbow elastic joint				
	75	CP-6-KI	1001398	● Light grey
	90	CS-6-KI	1001403	
	110	CV-6-KI	1001409	

Ø	Ref.	Code	Box/Units	Colour
87° 30' M-F elbow elastic joint				
	75	CP-8-KI	1001452	● Light grey
	90	CS-8-KI	1001458	
	110	CV-8-KI	1001462	
	125	CX-8-KI	1001466	

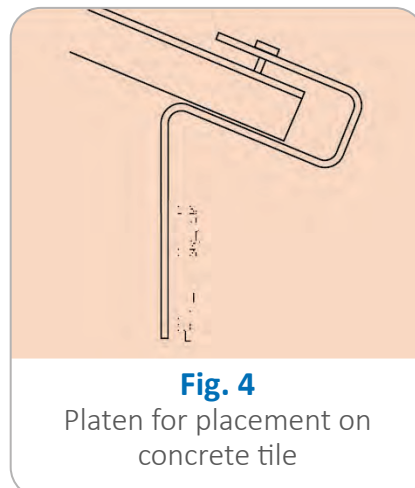
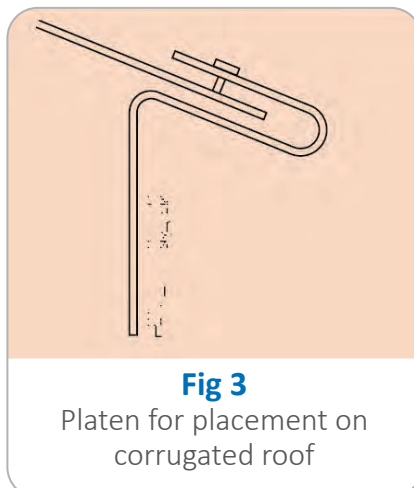
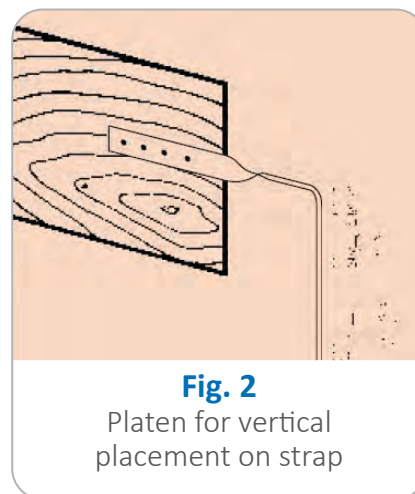
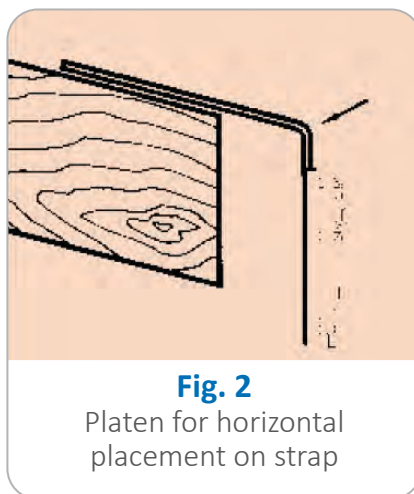
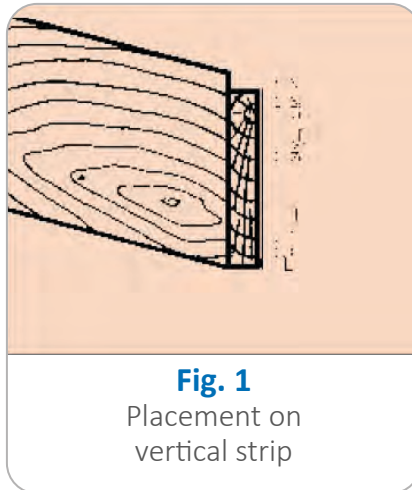
Ø	Ref.	Code	Box/Units	Colour
45° M-F single branch elastic joint				
	90	BS-14-KI	1001518	● Light grey
	110	BV-14-KI	1001524	

Ø	Ref.	Code	Box/Units	Colour
87° 30' M-F single branch elastic joint				
	90	BS-18-KI	1001618	● Light grey
	110	BV-18-KI	1001626	

7. Installation recommendations for Molecor® gutters

Platens

The platens have been designed to anticipate the installation of hooks on any roof, whether on straps vertically (Fig. 1) or horizontally (Fig. 2), on corrugated sheets (Fig. 3), or on tiles via a broader platen (Fig. 4).



Expansion control

Expansions in **Molecor** gutters will be controlled via the correct placement of hooks, the elastic joint and the use of special expansion cuffs for gutters in models with adhesive joints.

The maximum length of the connected gutter sections from a downspout with expansion or an expansion cuff must not exceed nine metres (Fig. CA-1).

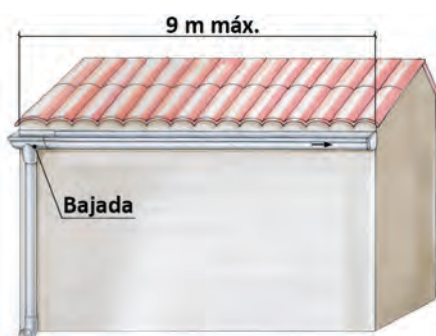
Sections longer than three metres must be connected to an expansion cuff or a connection downspout with an elastic joint (Fig. CA-2).

Sections without a downspout or expansion cuff must not exceed three metres under any circumstances (Fig. CA-3).

Similarly, an expansion cuff will be installed on downspouts every three metres (Fig. CA-4).

Installations with adhesive joints

Fig. CA-1



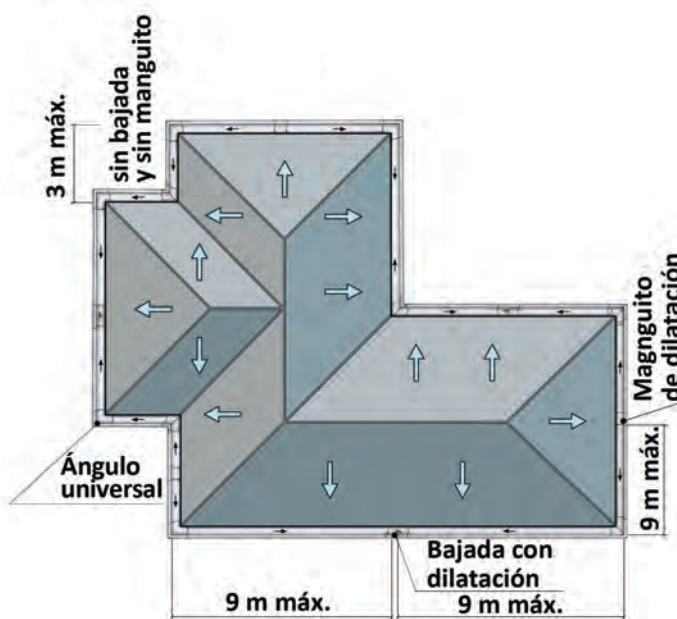
→ Dirección hacia donde se ejerce la dilatación

Fig. CA-2



→ Dirección hacia donde se ejerce la dilatación

Fig. CA-3



Installations with elastic joint connections

Fig. CA-4



→ Dirección hacia donde se ejerce la dilatación

8. On-site installation

Plunia® gutter

Hook assembly:

- 1 First, attach the corresponding gutter hook to the highest point and adopt a minimum gradient of 0.16% in accordance with the Technical Building Code.
- 2 Attach the gutter hook located immediately prior to the downspout fitting.
- 3 Tie and tighten a cord between both points to ensure the system is in perfect alignment.
- 4 Distribute the remaining hooks at distances of between 50 and 60 cm in general, or 30 cm in windy areas.
- 5 All fittings must be fixed on both sides via hooks, at a minimum distance of 5 cm from the fitting.
- 6 Ensure that all hooks have been installed perpendicular to the gutter profile so as to allow the gutter to expand without any tension.
- 7 For installations with a concealed upper hook, the assembly process is similar, but pay attention to the cord on the front of the hook when adjusting the installation's alignment.



adequa® circular double volute gutter

Hook assembly:

- 1 Use the cord.
- 2 First, attach the corresponding gutter hook to the highest point.
- 3 Adopt a gentle gradient (0.5 to 1%).
- 4 Attach the gutter hook located immediately prior to the downspout fitting.
- 5 Tighten the cord between the two points.
- 6 Distribute the remaining hooks, bearing in mind the distance between them (50 to 70 cm).

Ensure all hooks have been installed perpendicular to the gutter's axis so as to allow the gutter to expand without any tension.



adequa® circular single volute gutter

Hook assembly:

- 1 Use the cord.
- 2 First, attach the corresponding gutter hook to the highest point.
- 3 Adopt a gentle gradient (0.5 to 1%).
- 4 Attach the gutter hook located immediately prior to the downspout fitting.
- 5 Tighten the cord between the two points.
- 6 Distribute the remaining hooks, bearing in mind the distance between them (50 to 70 cm).

Ensure all hooks have been installed perpendicular to the gutter's axis so as to allow the gutter to expand without any tension.



adequa® trapezoidal gutter

Hook assembly:

To install the gutter on-site, a single hook model made with injected PVC has been designed, and this is "clamped" to the gutter on its inner edges. Once installed, they are hidden, keeping the gutter's opening uniform.

- 1 Use the cord.
- 2 Align all hooks horizontally with no gradient.
- 3 Check that the hooks are perpendicular to the gutter.
- 4 The minimum distance between the hooks and the connections and cuffs should be 5 cm.
- 5 Tighten the cord between the two ends.
- 6 Distribute the remaining hooks, bearing in mind the distance between them (50 to 70 cm).

Ensure all hooks have been installed perpendicular to the gutter's axis so as to allow the gutter to expand without any tension.



9. Hydraulic calculation

Calculating rainwater drainage according to the TBC

Gutters

The nominal diameter of the rainwater drainage gutter with a semicircular cross-section, for a rainfall intensity of 100 mm/h can be obtained from the following table depending on its gradient and the surface area it serves:

Gutter diameter for a rainfall intensity of 100 mm/h				
Maximum roof surface with horizontal projection (m²)				Nominal diameter of gutter (mm)
Gutter gradient				
0.5%	1%	2%	4%	
35	45	65	95	100
60	80	115	165	125
90	125	175	255	150
185	260	370	520	200
335	475	670	930	250

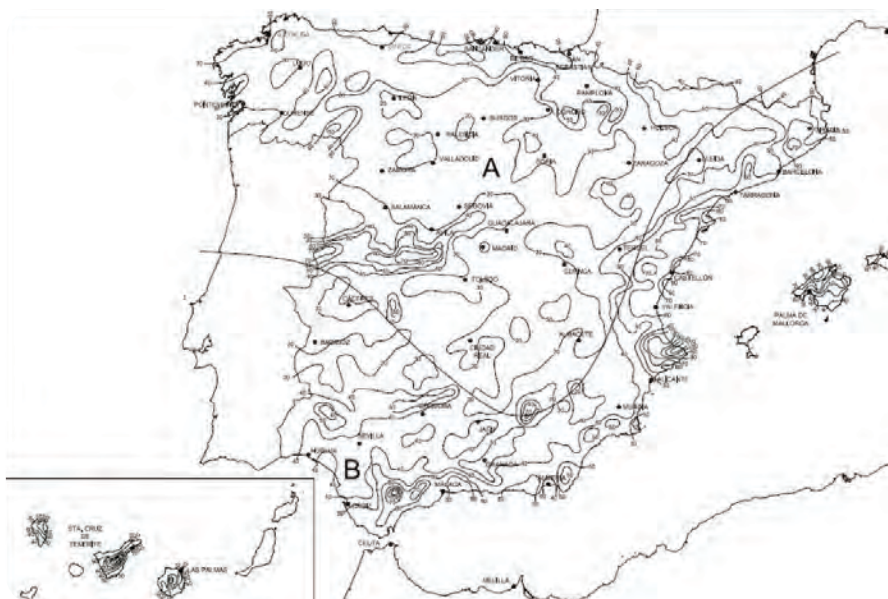
For a rainfall intensity other than 100 mm/h, apply a correction factor “*f*” to the surface served as follows:

$$f=i/100$$

With “*i*” being the rainfall intensity to be considered.

If the cross-section used for the gutter is not semicircular, the equivalent quadrangular cross-section must be 10% greater than that obtained with a semicircular cross-section.

The rainfall intensity “*i*” can be obtained from the following table, depending on the isohyet and the rain area corresponding to the town/city in question, determined using this map:



Isohyets map and rain areas

Rainfall intensity i (mm/h)												
Isohyet	10	20	30	40	50	60	70	80	90	100	110	120
Zone A	30	65	90	125	155	180	210	240	275	300	330	365
Zone B	30	50	70	90	110	135	150	170	195	220	240	265

The following table sets out the rainwater collection surfaces in projection served derived from the real cross-section measured in the gutter, interpolating with the previous tables obtained from the TBC's basic document HS Salubrity:

Model	Gutter real S' (cm ²)	Radius (cm)	Gutter nom. Ø (cm)	Rectang. +10%	Collected surface TBC 0.5% gradient (m ²)	Collected surface TBC 1% gradient (m ²)
Plunia®						
CA-130	75.2	6.92	13.84		66	104
adequa® circular double volute						
CA-125	57.2	6.03	12.07		55	73
CA-185	133.3	9.21	18.42		156	218
CA-250	237	12.28	24.57		335	475
adequa® circular single volute						
CA-25	54.5	5.89	11.78		53	70
CA-33	119.5	8.72	17.44		136	191
adequa® trapezoidal						
CA-26	67.6	6.56	13.12	14.43	83	116
CA-34	132.5	9.18	18.37	20.21	185	260

The TBC specifies that, in general, gutters will have a gradient of 0.5%. Specifically, a minimum gradient of 0.16% is permitted for plastic gutters.

Rainwater downspouts

The diameter corresponding to the surface, with a horizontal projection, served by each rainwater downspout can be found in the following table:

Diameter of rainwater downspouts for a rainfall intensity of 100 mm/h	
Surface with horizontal projection served (m ²)	Nominal diameter of downspout (mm)
65	50
113	63
177	75
318	90
580	110
805	125
1544	160
2700	200

Similar to gutters, for a rainfall intensity other than 100 mm/h, the corresponding correction factor "f" must be applied. **Molecor** gutters easily comply with the conditions specified, having suitably improved its downspouts to adapt to the different rainfall intensities considered.

Notes

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