

# PLULINE® D

## Guidelines for installation



Online video installation  
via [www.vmzinc.co.uk](http://www.vmzinc.co.uk) or [www.vmzinc.ie](http://www.vmzinc.ie)

- Made of VM ZINC®
- Solder free rainwater system

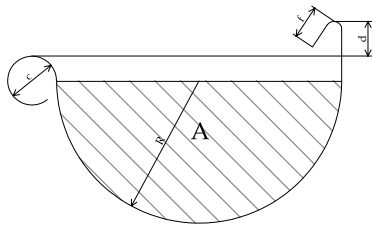
This document applies exclusively to the specification and installation of the designated products or systems on building sites in United Kingdom and the Republic of Ireland.

A Umicore brand





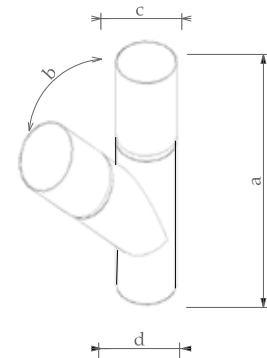
### Half-round gutter



Half-round gutter 250 mm	
c	14 mm
d	10 mm
f	8 - 10 mm
R	60 mm
A	43 cm <sup>2</sup>

Half-round gutter 333 mm	
c	14 mm
d	18 mm
f	8 - 10 mm
R	85 mm
A	92 cm <sup>2</sup>

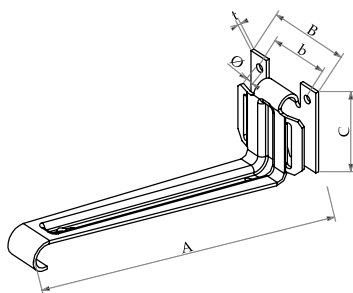
### Y branch



Y branch 80 mm	
a	302 mm
b	45°
c	81,60 mm
d	79,70 mm

Y branch 100 mm	
a	302 mm
b	45°
c	101,60 mm
d	99,70 mm

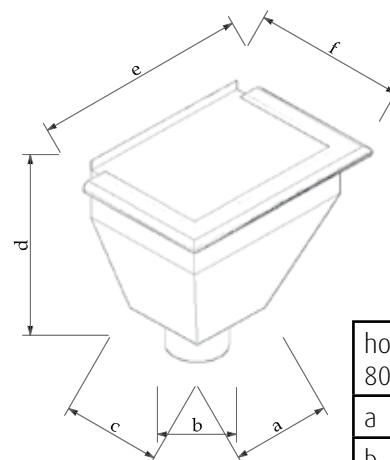
### Concealed bracket



Concealed bracket 250 mm	
A	139 mm
B	51 mm
C	43 mm
b	39 mm
t	1,5 mm
	5 mm

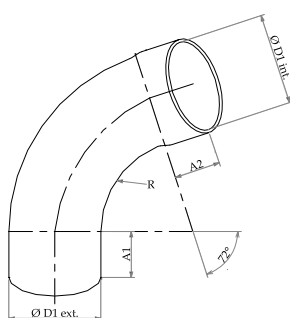
Concealed bracket 333 mm	
A	190 mm
B	53 mm
C	39 mm
b	39 mm
t	2 mm
	5 mm

### Hopper head



hopper head 80 mm		Hopper head 100 mm	
a	120	a	120
b	79,10	b	99,10
c	120	c	120
d	255	d	255
e	260	e	260
f	185	f	185

### Bend 72°



Bend 80 mm	
A 1	40 mm
A 2	40 mm
D 1	80 mm
D 2	79 mm
R	70 mm
Th*	0,65 mm

Bend 100 mm	
A 1	50 mm
A 2	45 mm
D 1	100 mm
D 2	99 mm
R	90 mm
Th*	0,75

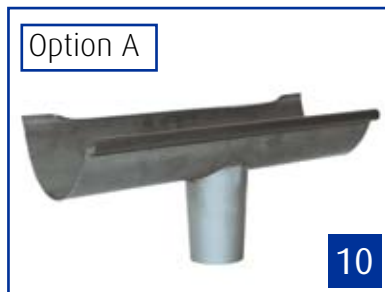
\* Thickness of VM ZINC®

# PLULINE®

All the benefits of plastics with the Superior quality of zinc



# PLULINE®



- 1 Stop- end ready to glue
- 2 Half round gutter - 2 m long
- 3 Concealed bracket
- 4 External corner 90°
- 4 External corner 135°
- 5 Internal corner 90°
- 5 Internal corner 135°
- 6 Hopper head
- 7 Sleeve connector
- 8 Y branch
- 9 Bend 72°
- 10 Option A: running outlet ready to install
- 10 Option B: universal outlet (you can punch a gutter or you can order piece 10\*)
- 11 Universal but-welded downpipe - 2 m long
- 12 Self locking pipe bracket
- 13 Rainwater diverter

# PLULINE®

## Gutter installation



1

Using the marking cord, make a chalkline setting the fall towards the running outlet and required position of the downpipe.



2

The running outlet is to be installed first and will need cutting according to its position on the building. Cut the right side if the downpipe is on the right side of the roof, or, the left side if the downpipe is on the left.



3

Use the zinc compatible adhesive to seal the stop end.



4

Always use 2 discrete brackets to secure the running outlet.



5

Fix firmly the prepared running outlet according to the chalkline.



6

Prepare the required lengths of gutter on a bench by clipping the brackets to them. Distance between brackets is a max. of 400mm.



7 Secure each bracket to the gutter by folding over the 2 tabs.



8 Apply 2, thin, parallel lines of adhesive to the inner part of the running outlet.



9 Insert the prepared gutter into the already installed running outlet. The adhesive (applied in the previous step) will spread sealing the joint.



10 Fix the gutter brackets according to the chalkline. Then fit the gutters by their bead first. Ensure 50 mm as min. overlapping.



11 Accurately join and fit the 2 pieces together.



12 Any gutter that requires cutting should be marked using short off-cut. Begin to saw from the beaded edge.

# PLULINE®

## Gutter installation



- 13 Clean the joints. Make them totally free of dust.



- 14 Apply 2, thin, parallel lines of adhesive to the inner part of the fitted gutter using a suitable applicator.

When joining sections of gutter, they should overlap by a min. of 50 mm. As each section of gutter is roled into the next, the adhesive will spread sealing the joint.



- 15 Don't forget the higher stop end.

### Subject

This document is intended for specifiers (building project architects and design teams) and users (companies responsible for installation on the building site) of the designated product or system. Its purpose is to provide the main information, text and diagrams, relating to specification and installation (including supporting structures) and flashing installation. Any use or specification outside the area of use and/or specifications contained in this manual requires specific consultation with the Umicore technical departments. This does not commit the latter to any responsibility with regard to the feasibility of the design or implementation of these projects.

### Countries of application

This document applies exclusively to the specification and installation of the designated products or systems on building sites in United Kingdom and the Republic of Ireland.

### Qualifications and reference documents

Please note that the specification of all construction systems for a given building remains the exclusive responsibility of its design team, who must, in particular, ensure that the specified products are suitable for the purpose of the building and compatible with the other products and techniques used. While construction is underway all standards in force must be respected. A video showing the installation process is available via download from [www.vmzinc.co.uk](http://www.vmzinc.co.uk) or [www.vmzinc.ie](http://www.vmzinc.ie). Furthermore, Umicore offers training courses specifically for professionals.

### Responsibility

The specification and installation of VM ZINC® products manufactured by Umicore are the sole responsibility of the architects and building professionals who must ensure these products are used in a way suited to the end purpose of the construction and that they are compatible with other products and techniques used. The specification and installation of the products implies respecting the standards in force and the manufacturer's recommendations. In this regard, Umicore publishes and regularly updates specification and installation manuals for specific geographic areas and provides training courses. All the information on the latter can be obtained from the local VM ZINC® team. Unless otherwise agreed in writing, Umicore cannot be held responsible for any damages resulting from a specification or installation that does not respect all of Umicore's specifications and the above standards and practices.



# PLULINE®

## Downpipes installation



- 1 Take 2 bends and adapt them to the distance from the wall.



- 2 Once measured to suit, glue these 2 bends together. In some situations it may be necessary to extend using a piece of downpipe.



- 3 Mark on the wall the positions of the self locking rings. Recommended at each downpipe joint.



- 4 Firmly fix the keys into the wall.



- 5 The downpipes have interconnecting sleeves. When installing, the wider end of each piece is always at the top, fitting into the next section below. The downpipe joints are hidden by the VM ZINC® collar which slides neatly into each key.



- 6 The system is completely installed and will effortlessly last for years to come without fading, creaking or sagging.

# PLULINE® - Order form



Cross out what you don't want to order.

	Name	Tones	Dimensions		Dimensions		pieces	Quantity of boxes that I want to order
							box	
1	Stop- end ready to glue	QUARTZ - ZINC®			250 mm	333 mm	25	
		ANTHRA - ZINC®			250 mm	333 mm		
2	Half round gutter	QUARTZ - ZINC®			250 mm	333 mm	5	
		ANTHRA - ZINC®			250 mm	333 mm		
3	Concealed bracket	QUARTZ - ZINC®			250 mm	333 mm	100	
4	Stamped external corner	QUARTZ - ZINC®			250 mm		4	
		ANTHRA - ZINC®			250 mm			
4	External corner 90°	QUARTZ - ZINC®			250 mm	333 mm	*	
		ANTHRA - ZINC®			250 mm	333 mm		
4	External corner 135°	QUARTZ - ZINC®			250 mm	333 mm	*	
		ANTHRA - ZINC®			250 mm	333 mm		
5	Stamped internal corner	QUARTZ - ZINC®			250 mm		4	
		ANTHRA - ZINC®			250 mm			
5	Internal corner 90°	QUARTZ - ZINC®			250 mm	333 mm	4	
		ANTHRA - ZINC®			250 mm	333 mm		
5	Internal corner 135°	QUARTZ - ZINC®			250 mm	333 mm	*	
		ANTHRA - ZINC®			250 mm	333 mm		
6	Hopper head	QUARTZ - ZINC®			80 mm	100 mm	1	
		ANTHRA - ZINC®			80 mm	100 mm		
7	Sleeve connector	QUARTZ - ZINC®			80 mm	100 mm	12	
		ANTHRA - ZINC®			80 mm	100 mm		
8	Y branch	QUARTZ - ZINC®			80 mm	100 mm	5	
		ANTHRA - ZINC®			80 mm	100 mm		
9	Bend 72°	QUARTZ - ZINC®			80 mm	100 mm	25	
		ANTHRA - ZINC®			80 mm	100 mm		
10	Running outlet	QUARTZ - ZINC®	250 mm	333 mm	80 mm	100 mm	10	
		ANTHRA - ZINC®	250 mm	333 mm	80 mm	100 mm		
10	Pre-punched gutter	QUARTZ - ZINC®	250 mm	333 mm	80 mm	100 mm	10	
		ANTHRA - ZINC®	250 mm	333 mm	80 mm	100 mm		
10	Universal outlet	QUARTZ - ZINC®	250 mm	333 mm	80 mm	100 mm	5	
		ANTHRA - ZINC®	250 mm	333 mm	80 mm	100 mm	10	
11	Universal but-welded downpipe	QUARTZ - ZINC®			80 mm	100 mm	5	
		ANTHRA - ZINC®			80 mm	100 mm		
12	Rainwater diverter	QUARTZ - ZINC®			80 mm	100 mm	1	
		ANTHRA - ZINC®			80 mm	100 mm	5	
13	Self locking pipe bracket	QUARTZ - ZINC®			80 mm	100 mm	10	
		ANTHRA - ZINC®			80 mm	100 mm		

\* Please contact your PLULINE retailer for further information



## VM ZINC

- is the brand name of rolled zinc products, transformed, produced and sold by Umicore.
- conforms to the EN 988.
- is a 99.995% pure zinc, to which very small quantities of copper and titanium are added.

ANTHRA-ZINC® lends itself to highly structured architecture.

VM ZINC®: natural and recyclable Zinc is 100% recyclable. More than 90% of the zinc used in the building industry is recycled. Less energy is required to produce it than the other principal metals. The energy balance is even more favourable in recycled zinc. This excellent result clearly proves the contribution of VM ZINC® to sustainable development.

### Physical properties of VM ZINC

Density: 7.18+ 0.02 g/cm<sup>3</sup>. Linear expansion: 0.022 mm per m and per °C in the direction of rolling.

### QUARTZ-ZINC®

Offers an appearance and texture close to the patina developed by natural VM ZINC®.

### ANTHRA-ZINC®

Its name reflects the charcoal colour, offering many combination possibilities.



Your PLULINE retailer

[wwwvmzinc.co.uk](http://wwwvmzinc.co.uk)

[www.vmzinc.ie](http://www.vmzinc.ie)

Umicore Marketing Services U.K.  
Four Rivers House,  
Fentiman Walk  
Hertford, Herts, SG14 1DB  
T: + 44 (0)1992 822288  
F: + 44 (0)1992 584460

Met-Seam Ltd  
Silverwood Industrial Estate, Craigavon,  
Northern Ireland, BT66 6LN  
t: +44 (0)28 3832 5757  
f: +44 (0)28 3832 5758  
e: [more@metseam.com](mailto:more@metseam.com)

A Umicore brand



