INSTALLATION GUIDELINES

ROOF DRAINAGE

WWW.PREFA.COM

COVER IMAGE

Product: PREFA square downpipe
Colour: P.10 anthracite
Photo: PREFA | Croce & Wir

LEGAL NOTICE

INFORMATION ON THE MATERIAL AND COLOUR GUARANTEE
CAN BE FOUND AT WWW.PREFA.COM/GARANTIE

SUBJECT TO TECHNICAL MODIFICATIONS AND PRINTING ERRORS.
COLOURS MAY VARY DUE TO PRINTING.
VERSION 1 | ENG | 01.2024 | PH

PREFA AUSTRIA

PREFA ALUMINIUMPRODUKTE GMBH
WERKSTRASSE 1 · 3182 MARKTL/LILIENFELD

T +43 2762 502-602

KUNDENSERVICE.AT@PREFA.COM
WWW.PREFA.AT

PREFA GERMANY

PREFA GMBH ALU-DÄCHER UND FASSADEN
ALUMINIUMSTRASSE 2 · 98634 WASUNGEN

T +49 36941 785-0

OFFICE.DE@PREFA.COM
WWW.PREFA.DE

PREFA SWITZERLAND

PREFA SCHWEIZ VERTRIEBS AG
LEENRÜTIMATTWEG 1 · 4704 NIEDERBIPP

T +41 71 952 68 19

OFFICE.CH@PREFA.COM
WWW.PREFA.CH

PREFA UNITED KINGDOM AND REPUBLIC OF IRELAND

PREFA UK LTD
1 CHAPEL STREET, WARWICK, CV34 4HL

T +44 20 7795 8124

OFFICE.UK@PREFA.COM
UK.PREFA.COM

PREFA FRANCE

PREFA FRANCE SARL
7F RUE MONTGOLFIER
68127 SAINTE-CROIX-EN-PLAINE

T +33 4 79 44 84 58

OFFICE.FR@PREFA.COM
WWW.PREFA.FR

PREFA ITALY

PREFA ITALIEN GMBH · PREFA ITALIA SRL
VIA-LUIGI-NEGRELLI 25 · 39100 BOZEN | BOLZANO (BZ)

T +39 0471 06 86 80

OFFICE.IT@PREFA.COM
WWW.PREFA.IT

PREFA NETHERLANDS

PREFA GMBH ALU-DÄCHER UND FASSADEN
ALUMINIUMSTRASSE 2 · 98634 WASUNGEN · GERMANY

T +49 36941 785-0

INFO.BE@PREFA.COM
WWW.PREFA.COM

PREFA DENMARK

PREFA GMBH ALU-DÄCHER UND FASSADEN
ALUMINIUMSTRASSE 2 · 98634 WASUNGEN · GERMANY

T +49 36941 785-0

INFO.DK@PREFA.COM
WWW.PREFA.DK

INTRODUCTION

PREFA NORWAY

PREFA GMBH ALU-DÄCHER UND FASSADEN
ALUMINIUMSTRASSE 2 · 98634 WASUNGEN · GERMANY

T +49 36941 785-0

INFO.NO@PREFA.COM
NO.PREFA.COM

PREFA SWEDEN

PREFA SVERIGE AB
BJÄRE PLATS 13 · 218 45 VINTRIE

T +46 10 498 66 60

OFFICE.SE@PREFA.COM
WWW.PREFA.SE

PREFA POLAND

PREFA POLSKA SP. Z O.O.
UL. EMALIOWA 28 · 02-295 WARSZAWA

T +48 22 720 62 90

OFFICE.PL@PREFA.COM
PL.PREFA.COM

PREFA IN THE CZECH REPUBLIC

PREFA ALUMINIUMPRODUKTE S.R.O.
K ZELENČI 2883/14 · 193 00 PRAHA 9 · HORNÍ POČERNICE

T +420 234 496 503

ZAKAZNICKYSERVIS@PREFA.COM
CZ.PREFA.COM

PREFA SLOVAKIA

PREFA SLOVENSKO S.R.O.
ŠTÚROVA 136B · 949 01 NITRA

T +421 915 528 475 (MAREK MESÍK)
T +421 915 247 416 (PETER MESÍK)
T +421 907 646 501 (DENIS FILČÁK)

OFFICE.SK@PREFA.COM
SK.PREFA.COM

PREFA HUNGARY

PREFA HUNGÁRIA KFT.
BUDAÖRSI IPARI PARK · GYÁR UTCA 2. · 2040 BUDAÖRSI
POSTACÍM: 2058 BUDAÖRS · PF. 80.

T +36 23 511 670

OFFICE.HU@PREFA.COM
WWW.PREFA.HU

PREFA SLOVENIA

PREFA SLOVENJIA
OBRTNIŠKA ULICA 2 · 1292 IG

T +386 51 612 500

OFFICE.SI@PREFA.COM
WWW.PREFA.SI

PREFA CROATIA

PREFA ALUMINIUMPRODUKTE GMBH
WERKSTRASSE 1 · 3182 MARKTL/LILIENFELD · AUSTRIA

T +385 91 655 55 06 (ZORAN JAKOPOVIĆ)
T +385 99 211 60 01 (FILIP DUBROVSKI)

OFFICE.HR@PREFA.COM
WWW.PREFA.HR

These installation guidelines are for architects and installers. The sketches provided are examples of normal cases.

All known relevant regulations, standards, ordinances and guidelines must be adhered to. Contractual factors are not discussed in these installation guidelines. Thus, no enforceable claims for damage, faults or incompleteness may be derived from these guidelines. Project-related structural factors are not discussed in these installation guidelines. The installation guidelines are not a substitute for independent thoughts and actions.

PREFA products have to be installed by specialist installers only. The present installation instructions therefore require the routine handling of roof and roof drainage materials.

NOTE

If you have any questions or need support, please contact the PREFA Product Technology department.

On our website www.prefa.com, you can find all the information on our products, as well as a detailed description of our comprehensive range of services for certified specialists.

If you are interested in our installation videos or want to sign up to our PREFA Academy, you can obtain login data from your PREFA consultant on request.

TABLE OF CONTENTS

TABLE OF CONTENTS

PROCESSING AND INSTALLATION

TABLE OF CONTENTS

CONTACT WITH OTHER MATERIALS

Different metals must not touch if this could cause contact corrosion or corrosion damage. Direct metallic contact is to be prevented through the use of suitable coatings or separating layers. It is also important to pay attention to the order of the materials in the watercourse.

The table is intended to give an overview of how aluminium may be connected to other metals and which building materials should be used with caution.

Material planning	Land	City/Industry atmosphere	Lake/near the sea
Zinc	+	+	+
Stainless steel	+	+	+
Lead	+	+	–
Uncoated steel	–	–	–
Copper	–	–	–
Dry concrete	+	+	–
Concrete not set	–	–	–

No water may get from copper parts (e.g. gutters, edging, chimney caps, sheet metal coverings) onto PREFA aluminium products (observe the electrochemical series). **If this is already the case, these parts must be replaced, otherwise the materials will corrode!**

Impurities such as drilling dust, mortar residues or effluent from concrete on coated or blank aluminium parts must be removed immediately.

PREFA aluminium products must be protected from damaging influences by other building parts (e.g. concrete) or the environment (e.g. corrosive environment).

STORAGE, TRANSPORT AND HANDLING

Secure open units or sheet metal parts against falling in strong winds.

Protect cardboard packaging stored at the building site against rain with a tarpaulin. Gutters and pipes are covered with a protective film for protection during transport. UV radiation can make it difficult to peel off the protective films. Therefore, ensure that gutters and pipes are not stored in direct sunlight (UV radiation).

Inlet plates/ice strips guide water into the gutter and prevent water from splashing onto the back of the gutter. The need for drip edges or starter plates depends on the positioning of the gutter and local requirements and is object-related in coordination between the architect, installer and client.

The structural requirements must be taken into account.

Painting over or repairing scratches on PREFA roof drainage products is not required due to the corrosion resistance of aluminium. When touching up scratches, there may be colour differences due to different paint qualities of the touch-up paints/pens.

In the case of powder-coated products, cracks and damage to the coating must be expected during forming (e.g. expansion of pipes).

CLEANING AND MAINTENANCE

Roof and façade are parts of the building that are particularly stressed by the weather. Sun and wind, rain and snow, as well as permanent moisture (in the forest or in the shade) have an effect on the building cover. Dirt deposits (e.g. dust, leaves, needles, etc.) can impair the function and appearance of the roof covering, façade or the roof drainage (e.g. blockage). Therefore, it is advisable to check roof and façade coverings, as well as roof drainage systems at certain intervals in order to be able to identify and eliminate any changes, damage, consequential damage or soiling in good time.

Depending on the degree of soiling, leaves, dirt and, if necessary, ice and snow should be removed from roof drainage systems at regular intervals. This is particularly important to consider for PREFA rain flaps, PREFA water collectors and PREFA leaf catchers. In special situations, the sieve of the water collector and the leaf catcher should be closed over the winter months.

Tips on care and maintenance: In the case of light soiling, such as a layer of dust or similar: clear, lukewarm water, detergent or care products for car paintwork (no scouring agents!). For oil or grease: conventional car polish or suitable universal cleaner. The manufacturer's instructions for cleaning agents must be observed.

Use water and a cleaning sponge for cleaning.

ATTENTION

After each cleaning process, rinse sufficiently with clear water. Do not clean in direct sunlight! Never use acetone, nitro thinner or similar solvent or products with an abrasive effect for cleaning.

ATTENTION

For safety reasons, the gutter may not be entered or walked on!

CALCULATIONS

PREFA offers specialists support for the dimensioning of PREFA roof drainage products.

NOTE

For assistance with calculations for projects in exposed locations, please contact PREFA technical department at office.uk@prefa.com.

PREFA ACADEMY

The PREFA training courses are an important prerequisite for a satisfactory and efficient installation.

PREFA continuously conducts trainings courses on the PREFA products and their practical installation on sample roofs. In order to attend these courses, timely registration is required.

Further information on courses and registration can be found at:

uk.prefa.com/academy

Fig. 1 · PREFA Academy

INSTALLATION VIDEOS

PREFA installation videos can be found on our website in the login area. Access data can be obtained from a PREFA consultant on request.

uk.prefa.com

ON-SITE TRAINING/SUPPORT

Are you currently implementing your first project with PREFA products or do you need our expertise or for difficult construction sites? No worries - our PREFA technicians will be happy to support you and give you important and expert tips so that you are perfectly equipped for your next project with PREFA.

HAND TOOLS

“A good hand needs good tools.” This proverb also applies to the tools required for laying PREFA roof drainage systems.

IMPORTANT

Sharp corners and edges on the clamping jaws and guide levels of seaming pliers and decking pliers should be rounded off to avoid markings or damage to the coating. The same applies to the fin of the iron hammer (250-300 g).

Nail pouch with 2 compartments
Iron hammer 250–300 g
Wooden hammer
Hand pliers
Left ideal snips
Right ideal snips
Pelikan snip
Chalk line
Pincers
Façade pliers - straight
Façade pliers - 45°
Seam opener
Seaming iron
Knee pads (possibly)

Fig. 2 · Tools

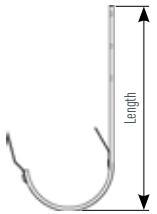
ROOF DRAINAGE DIMENSIONS

Dimensions and tolerances based on EN 612

GUTTER BRACKETS · BOX GUTTER BRACKETS · FASCIA BRACKETS

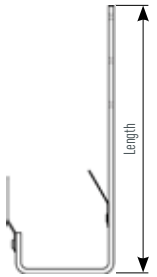
Gutter bracket

	Length [mm]		Difference to standard length [mm]
Gutter bracket 250	335		
Gutter bracket 250 (short)	287	–	48
Gutter bracket 280	347		
Gutter bracket 280 (short)	297	–	50
Gutter bracket 280 (long)	445	+	98
Gutter bracket 333	383		
Gutter bracket 333 (short)	312	–	71
Gutter bracket 333 (long)	473	+	90
Gutter bracket 400	452		



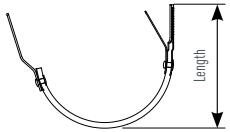
Box gutter bracket

	Length [mm]
Box gutter bracket 250	325
Box gutter bracket 333	370
Box gutter bracket 400	435
Box gutter bracket 500	455



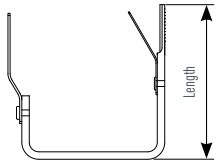
Fascia bracket

	Length [mm]
Fascia bracket 250	135
Fascia bracket 280	139
Fascia bracket 333	154



Fascia bracket for box gutter

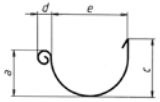
	Length [mm]
Fascia bracket for box gutter 250	130
Fascia bracket for box gutter 333	145



HALF-ROUND GUTTERS · BOX GUTTERS

Half-round gutters

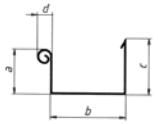
Dimensions in mm



Gutter dimensions	Height		Diameter	
	Front a	Backsite c	Gutter e	Bead d
250 (8 pcs.)	61	72	110	19
280 (7 pcs.)	67	78	126	19
333 (6 pcs.)	87	98	153	19
400 (5 pcs.)	110	121	192	19

Box gutters

Dimensions in mm

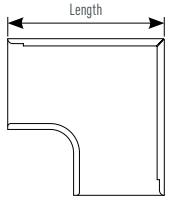


Gutter dimensions	Height		Width	Diameter
	Front a	Backsite c	Gutter base b	Bead d
250 (8 pcs.)	54	63	86	19
333 (6 pcs.)	75	93	120	19
400 (5 pcs.)	92	113	150	19
500 (4 pcs.)	114	142	200	19

GUTTER CORNERS · BOX GUTTER CORNERS

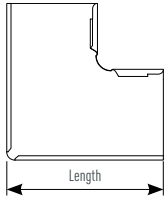
Gutter corner 90° (external)

	Length [mm]
Gutter corner 250	300
Gutter corner 280	300
Gutter corner 333	300
Gutter corner 400	340



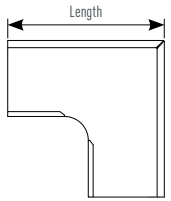
Gutter corner 90° (internal)

	Length [mm]
Gutter corner 250	300
Gutter corner 280	300
Gutter corner 333	300
Gutter corner 400	340



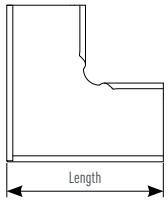
Box gutter angle 90° (exterior)

	Length [mm]
Box gutter corner 250	300
Box gutter corner 333	300
Box gutter corner 400	300
Box gutter corner 500	370

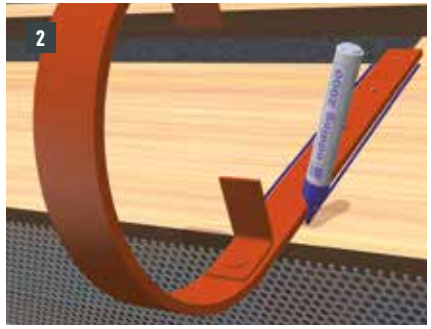


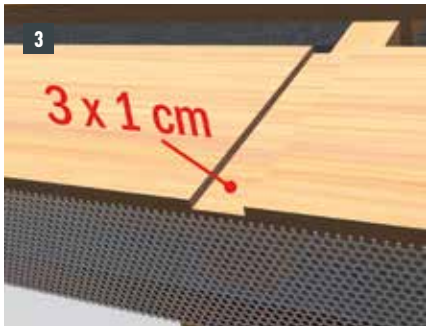
Box gutter angle 90° (interior)

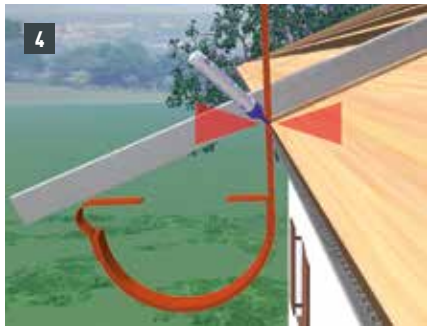
	Length [mm]
Box gutter corner 250	300
Box gutter corner 333	300
Box gutter corner 400	300
Box gutter corner 500	350



GENERAL GUTTER INSTALLATION

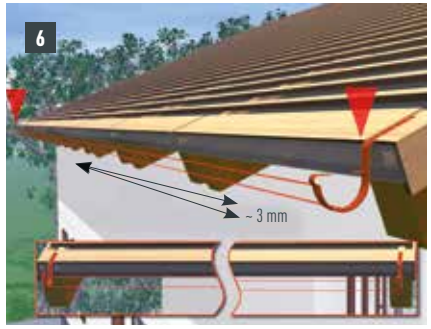


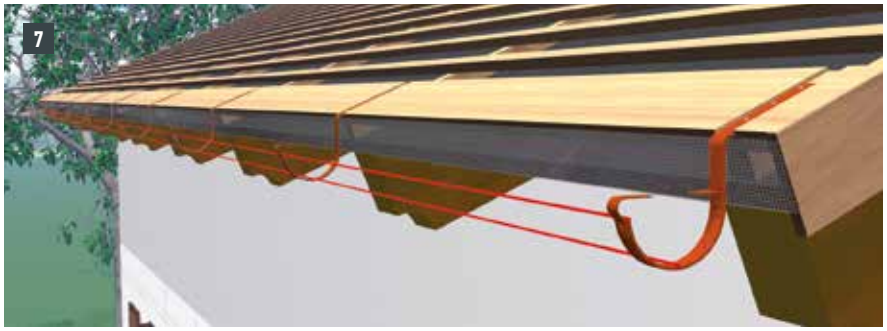




1 PREPARATION AND INSTALLATION OF GUTTER BRACKETS

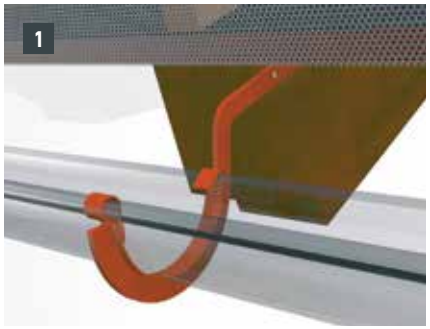
- Mount the gutter with a fall (approx. 3 mm per metre), fasten the gutter brackets as normal in the rafter following the rafter spacing (Fig. 1).
- Mark the gutter brackets on the eaves board above the rafter (Fig. 2).
- Recess the eaves board (Fig. 3).
- Mark the bending edge of the gutter brackets. The gutter bead must be below the imaginary, extended course of the roof (Fig. 4).

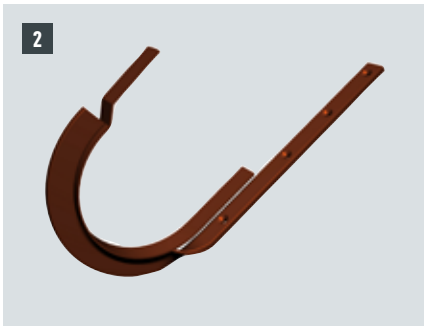


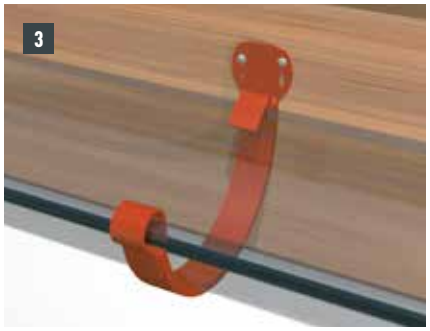


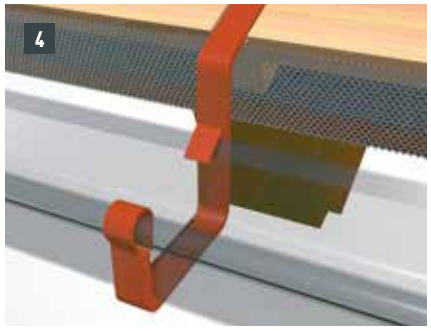
- Bend the gutter brackets at the correct angle and height (Fig. 5).
- Fasten the highest and lowest brackets. Install brackets at the high and low point. Tighten the cord in the watercourse and at the front of the bracket (Fig. 6).
- Install the gutter brackets according to the given fall by the string with at least 2 gutter bracket nails 5 × 80 mm or screws 5 × 80 mm (Fig. 7).

2 VARIATIONS OF GUTTER BRACKETS



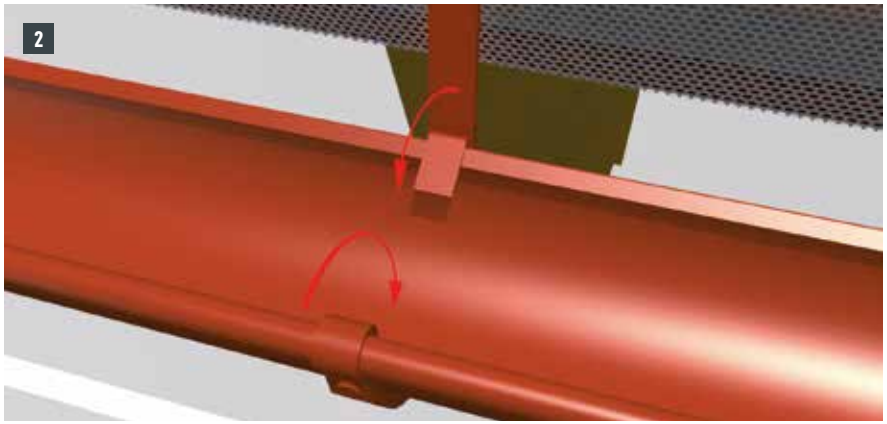






Upright gutter brackets (Fig. 1), Swiss gutter brackets (Fig. 2), fascia brackets (Fig. 3), box gutter brackets (Fig. 4), fascia brackets for box gutter (Fig. 5)

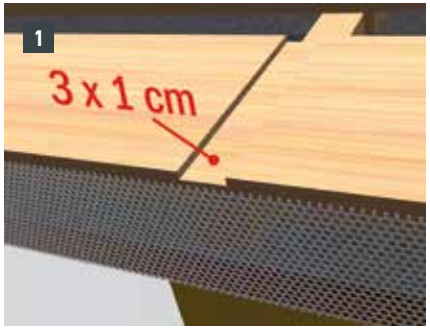
3 GUTTER INSTALLATION

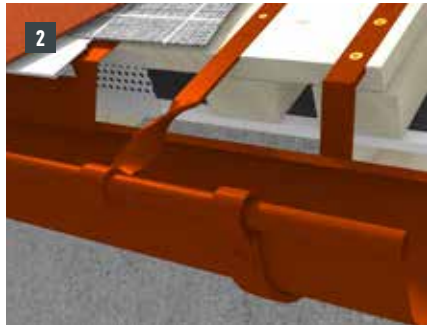


- Insert the gutter, starting at the lowest point. The overlap of the gutter joint must be installed in the direction of the slope (Fig. 1).
- Close the springs of the gutter bracket (Fig. 2). Do not close the springs too tightly, otherwise the gutters will no longer be able to expand unhindered.

4 OVERBAR INSTALLATION

Overbars can be mounted between the gutter brackets for additional bracing of the gutters. PREFA overbars can be used universally for all gutter dimensions.





- In order to install the overbar properly, a rebate in the eaves board is required (Fig. 1).
- Insert the overbar into the gutter bead and fasten (Fig. 2).
- Can be used for all gutter dimensions.

ATTENTION

Starter flashing must be notched in the area of the overbar. It is advisable to mount the overbar while installing the gutter. Retrofitting existing gutters involves considerable effort.

HANGING GUTTER

1 GLUING GUTTER JOINTS

HANGING GUTTER JOINTS WITH 1 SPECIAL ADHESIVE CARTRIDGE	
Product	Joints
Hanging gutter 250	approx. 22
Hanging gutter 280	approx. 19
Hanging gutter 333	approx. 15
Half-round gutter 400	approx. 12

- Roughen the surface of the overlapping parts with the supplied sanding paper. (Fig. 1).
- Clean both ends with provided cleaner. Wait for the cleaner to evaporate for about 5 min. (Fig. 2).

- With PREFA special adhesive apply 1 bead (approx. 8 mm thick) approx. 50 mm before the end of the gutter (Fig. 3).
- Twist the gutter together and place a rivet on the gutter bead (Fig. 4).

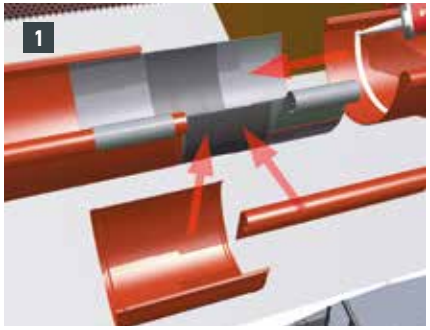
- Close rear gutter fold. If the joint has been carried out correctly the glue should be bulging from the inside (Fig. 5).

2 RIVETING GUTTER JOINT

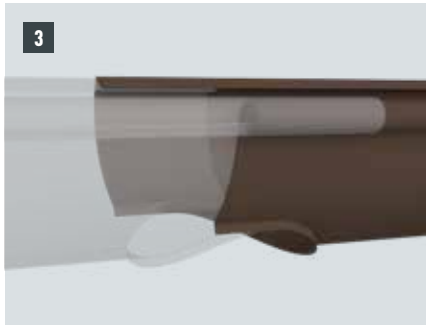
- Apply a bead (approx. 8 mm thick) of PREFA special adhesive to the cleaned and dry gutter end 50 mm before the end (Fig. 1).
- Twist a min. of 80 mm into each other and close the rear fold (Fig. 2).

- Set rivet holes with Ø 4.1 mm (Fig. 3).
- Rivet with patent rivets 4 x 9.5 mm in a cross stitch (Fig. 4).
  - Halfround gutter 250: 6 pcs. Rivets per joint
  - Halfround gutter 280 and Hanging gutter 333: 8 pcs. Rivets per joint
  - Halfround gutter 400: 10 pcs. Rivets per joint
- Rivets must be sealed on the inside (Fig. 5).

3 GUTTER JOINT EXPANSION INSTALLATION

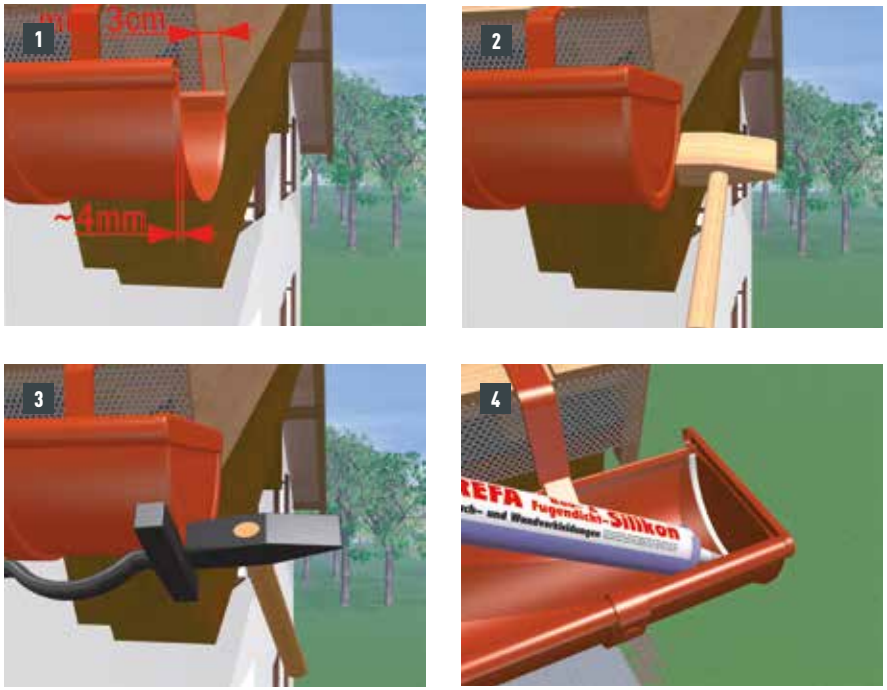


- Spacing of gutter expansion halfround gutter max. 12 m, on-roof gutter max. 6 m, spacing of expansion joint is to bisect at corners The joint could be bonded or riveted (Fig. 1).



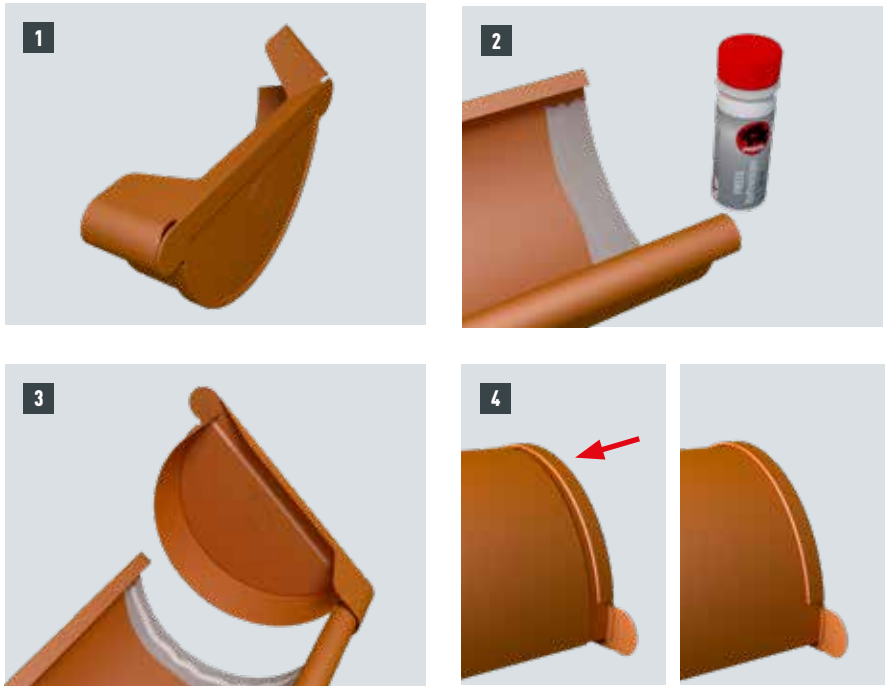
- Expansion joint at low point-expansion will be within the gutter outlet. Push the gutter ends 80 mm into each other and cut out (do not rivet!) (Bild 3).

4 GUTTER STOP END INSTALLATION



- Crimp the metal about 4 mm outwards, gutter should overhang appr. 30 mm (Fig. 1).
- Attach stop end (Fig. 2).
- Close the seam of stop end (Fig. 3).
- Seal with PREFA special silicone or PREFA special adhesive (Fig. 4).

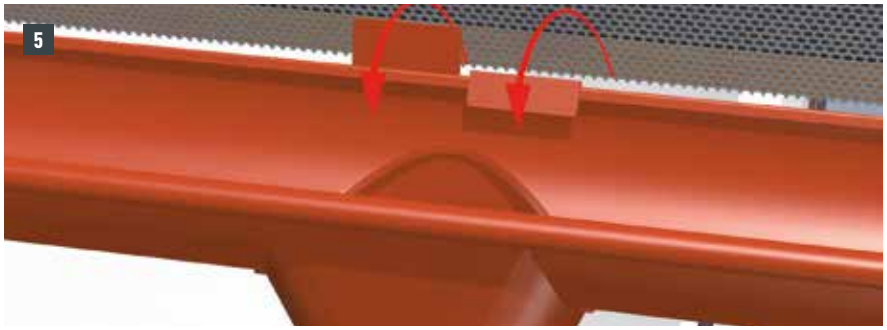
5 ADHESIVE STOP END INSTALLATION



- Break off the left or right tab by hand, depending on which side the bonded stop end is to be mounted on (Fig. 1).
- Roughen the glued surface. Clean the surface with the PREFA adhesive cleaner, wait approx. 5 mins for it to evaporate (Fig. 2).
- Apply a bead of adhesive, attach stop end to the bead and turn it into the gutter (Fig. 3).
- Push the stop end into the gutter: the gutting edge shouldn't be visible (Fig. 4).

6 INSTALLATION OF LEADER HEAD

- For gutter outlets, mark the opening at the lowest point of the gutter according to the template provided (Fig. 1).
- Cut out the opening (Fig. 2).
- Edge the opening 4 mm downwards (Fig. 3).
- Attach the outlet (Fig. 4).

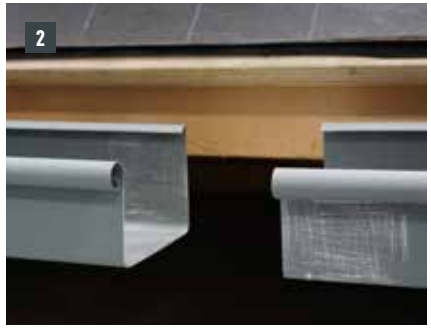


- Bend over the 2 flaps to tighten the outlet (Fig. 5).

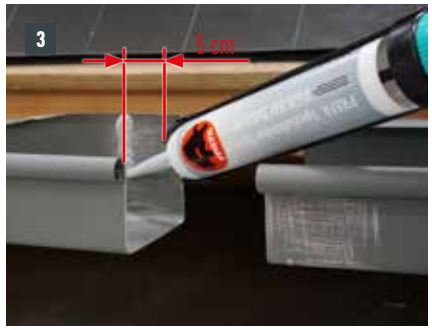
BOX GUTTER

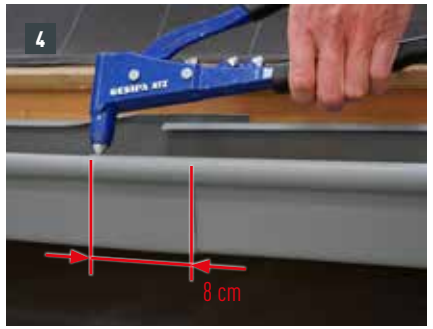
1 GLUING BOX GUTTER JOINT

BOX GUTTER JOINTS WITH 1 SPECIAL ADHESIVE CARTRIDGE	
Product	Joints
Box gutter 250	approx. 22
Box gutter 333	approx. 15
Box gutter 400	approx. 12
Box gutter 500	approx. 9



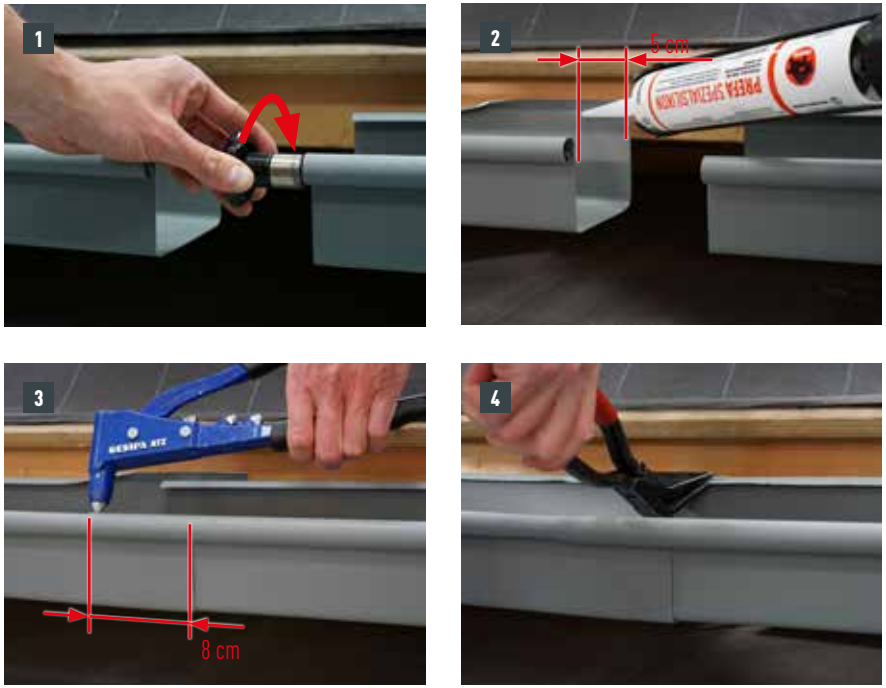
- In order to make the joint as neat as possible please use provided bead opener to widen the bead (Fig. 1).
- Roughen the glued surface with sanding paper. Then clean both ends with provided cleaner. Wait for the cleaner to evaporate for about 5 minutes (Fig. 2).





- With PREFA special adhesive apply 1 bead (approx. 8 mm thick) approx. 50 mm before the end of the gutter (Fig. 3).
- Overlap box gutter approx. 80 mm and twist together, place a rivet on the box gutter bead (Fig. 4).
- Close rear box gutter fold. If the joint has been carried out correctly the glue should be bulging from the inside (Fig. 5).

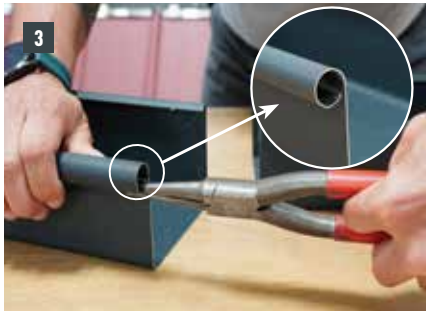
2 RIVETING BOX GUTTER JOINT



- In order to execute the joint as neatly as possible, it is helpful to widen the covering bead with a bead opener (Fig. 1).
- Apply a bead (approx. 8 mm thick) of PREFA special adhesive to the prepared gutter approx. 50 mm from the end (Fig. 2).
- Overlap both ends approx. 80 mm and turn the overlapping piece over, place a rivet on the bead (Fig. 3).
- Close rear box gutter fold (Fig. 4).

- Rivet with PREFA patent rivets 4 x 9.5 mm in a cross stitch (Fig. 5).
  - Box gutter 250: 6 pcs. Rivets per joint
  - Box gutter 333: 8 pcs. Rivets per joint
  - Box gutter 400: 10 pcs. Rivets per joint
  - Box gutter 500: 12 pcs. Rivets per joint

3 VERSION WITHOUT GUTTER BEAD OPENER



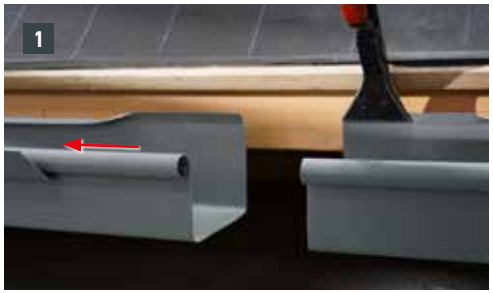
- In order to be able to make the joint without a gutter bead opener, the box gutter bead underneath is notched by 60 mm (Fig. 1 + 2).
- The bead of the overlapping box gutter is opened 20 mm with round-nose pliers (Fig. 3).
- The rear fold is to be opened with folding pliers approx. 80 mm (Fig. 4).

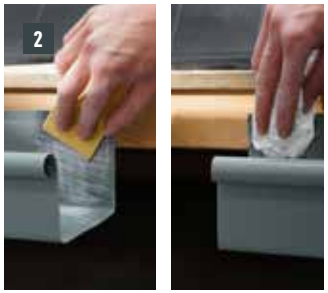
- Seal the gutter joint using a PREFA special adhesive set. The box gutter is then twist into one another with an 80 mm overlap (Fig. 5) and the rear cover is closed again (Fig. 6).

NOTE

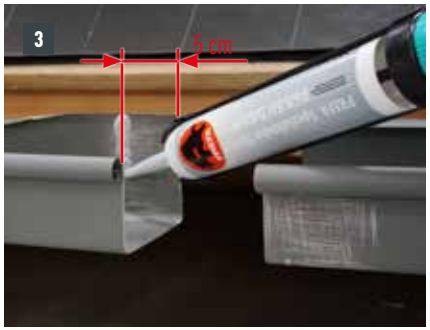
The variant is to be used without a gutter bead opener to connect the box gutter with a box gutter angle.

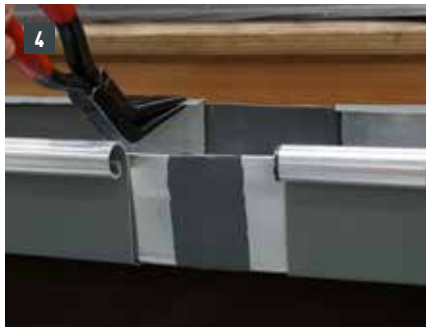
4 BOX GUTTER CONNECTION EXPANSION INSTALLATION





- Prepare box gutter expansion joint installation: Push the gutter bead onto the box gutter and open the rear box gutter fold (Fig. 1).
- Roughen the glued surface with sanding paper and clean with provided cleaner. Wait for the evaporation time of 5 minutes (Fig. 2).





- Apply a bead of adhesive (approx. 8 mm thick) to both box gutter ends with PREFA special adhesive (Fig. 3).
- Turn in the expansion joint and close the fold in the back (Fig. 4).
- Position the gutter bead and secure it with a rivet (Fig. 5).

ATTENTION

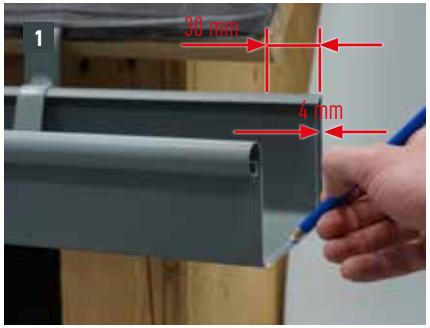
Do not rivet the gutter bead on both sides, otherwise it will be unable to expand.

- Attach the expansion joint cover and trim it to the needs in the back (Fig. 6).

NOTE

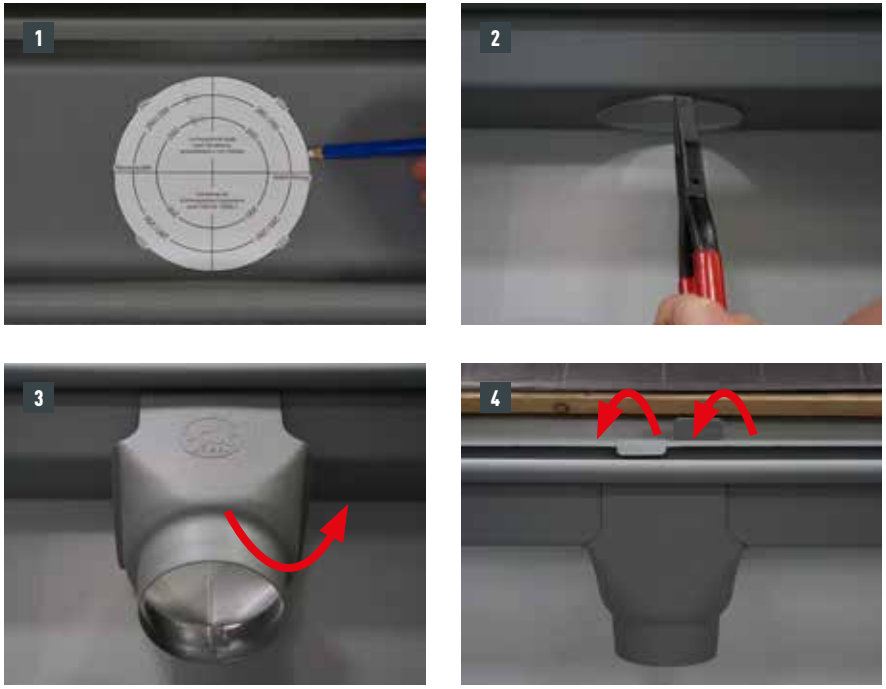
The joint could be executed as a bonded and riveted version.

5 BOX GUTTER STOP END INSTALLATION



- Crimp the metal about 4 mm outwards, gutter should overhang appr. 30 mm (Fig. 1).
- Sweep to 90° with the hammer and seaming iron (Fig. 2).
- Fold up the box gutter stop end and seal with PREFA special silicone or special adhesive (Fig. 3).

6 INSTALLATION OF LEADER HEAD



- Please mark the outlet hole at the low point of the gutter (Fig. 1).
- Cut out the opening and edge 4 mm downwards (Fig. 2).
- Hook the outlet into the bead (Fig. 3).
- Use the two flaps in the back to get hold of the outlet (Fig. 4).

ON-ROOF GUTTER

1 ON-ROOF GUTTER

When planning on-roof gutter, care must be taken to ensure that these are installed at the level of the roof covering above the sub-roof running underneath or above the ventilation level.

According to ÖNORM B 3521-1, the starter flashings are designed to be cut to 500 mm in sections up to 3 m in length, up to a cut of 800 mm in sections up to 1 m in length. The regulations for seam roofing apply to dimensions wider than 800 mm.

The edge plate must be at least 15 cm behind the overlying area of the edge gutter and should have a cut of at least 400 mm.

Below a roof pitch of 25°, roof edge plates must have a rear edge of at least 15 mm.

Fig. 3 · On-roof gutter

1.1 MINIMUM ROOF PITCH AND SLOPE

The PREFA on-roof gutter is generally designed for a minimum slope of 3 mm/m. In certain circumstances however, the PREFA on-roof gutter can also be designed without a slope.

NOTE

In the case of a reduced slope, increased cleaning or maintenance is to be expected.

It is important to ensure that the roof gutter back fold is 10 mm higher than the front of the edge gutter. This results in a minimum roof pitch of 20° for PREFA on-roof gutters (see Fig. 4).

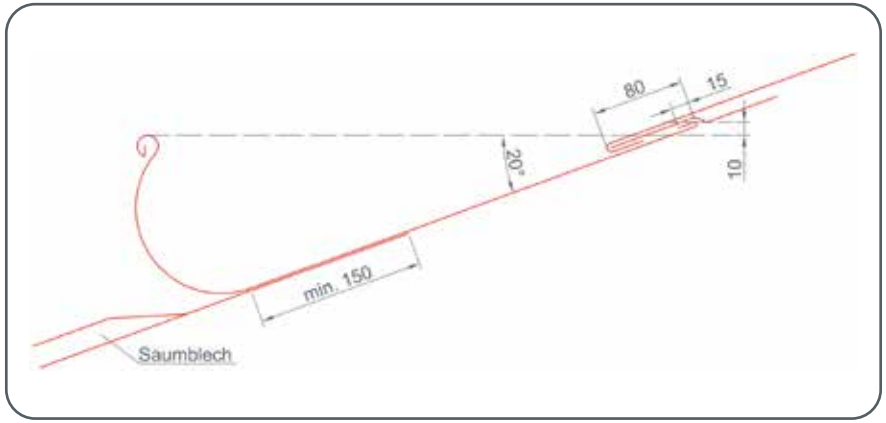
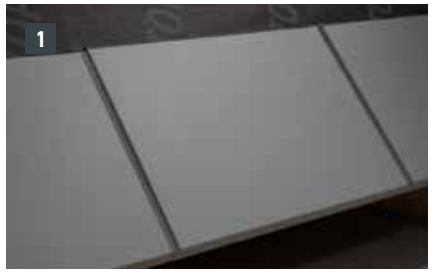


Fig. 4 · Minimum roof pitch PREFA on-roof gutter

2 INSTALLATION OF DRIP EDGE

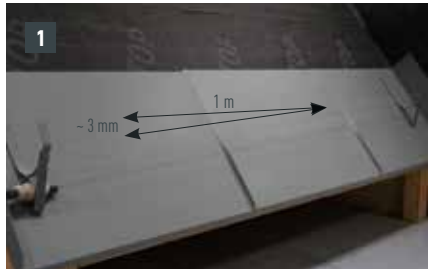


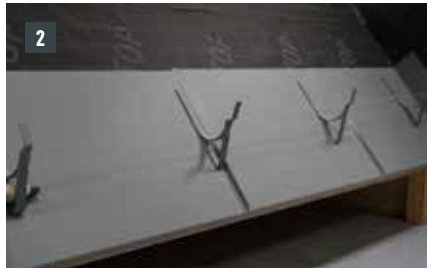
- Install the eaves starter flashing in accordance with national standards and technical regulations (Fig. 1).
- Flatten the seams on the top outwards (Fig. 2).

NOTE

Flatten the seams that the on-roof gutter overlaps 150 mm miniumum. Mind fall

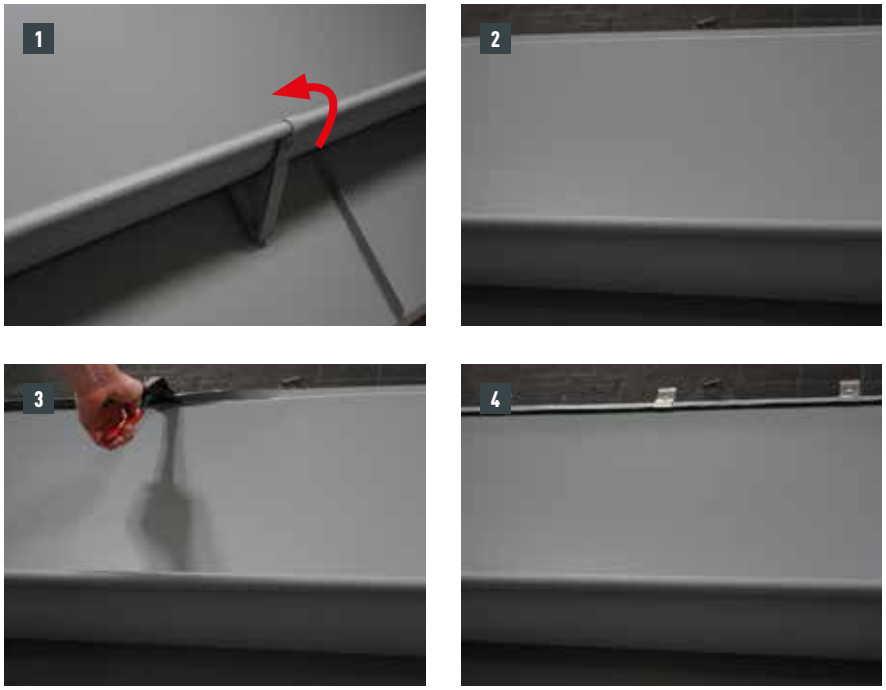
3 INSTALLATION OF ON-ROOF GUTTER BRACKETS





- Fit gutter bracket at low and high point. Usually gutter brackets should be installed following rafter spacing (Fall approx. 3 mm per meter) (Fig. 1).
- Tighten the string in the watercourse and at the front of the gutter bracket. Install gutter brackets with provided fall (Fig. 2).

4 INSTALLATION OF ON-ROOF GUTTER



- Insert on-roof gutter and tighten the spring of the bracket. Starting at the lowest point. The overlap of the gutter joint must be installed in the direction of the slope (Fig. 1).
- Trim the on-roof gutter at the upper end to the required length (Fig. 2).

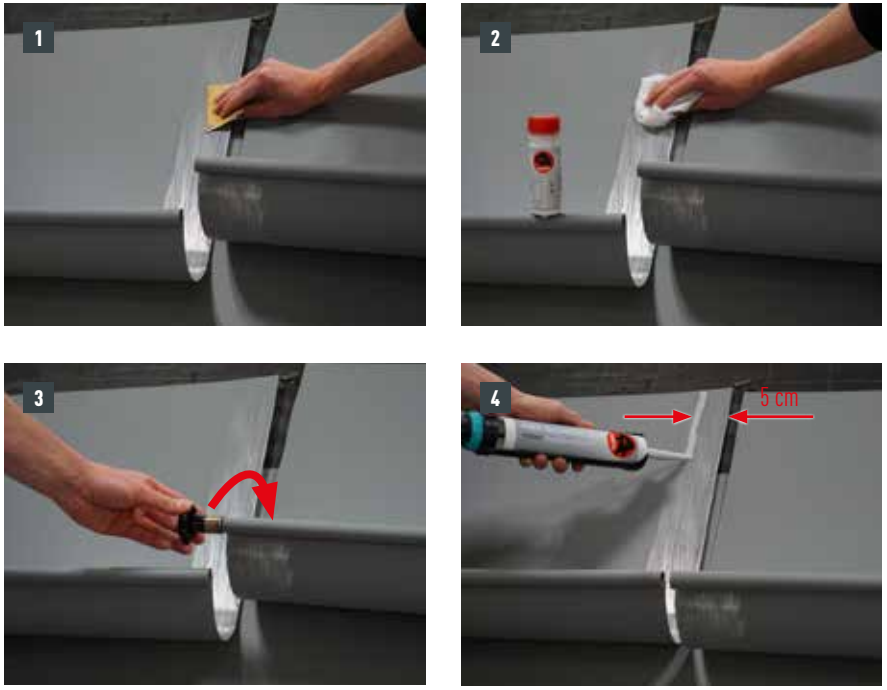
ATTENTION

It is important to ensure that the roof gutter back fold is 10 mm higher than the front of the edge gutter.

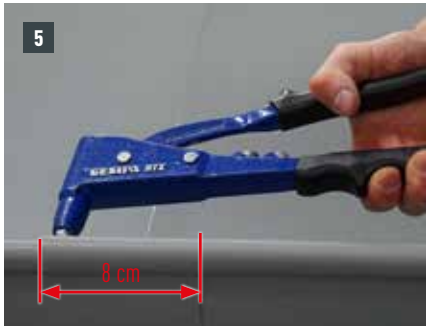
- Prepare back fold (Fig. 3).
- Fix fold with clips (Fig. 4).

5 GLUING ON-ROOF GUTTER JOINT

ON-ROOF JOINT WITH 1 SPECIAL ADHESIVE CARTRIDGE	
Product	Joints
On-roof gutter	approx. 5



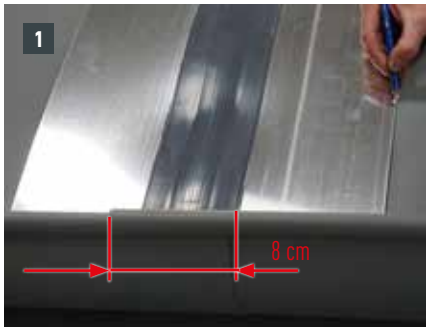
- Mark overlapping area (approx. 8 cm) at the bottom or top of the edge gutter and roughen the surface (Fig. 1).
- Clean the surface with provided cleaner. Wait for the cleaner to evaporate for about 5 min. (Fig. 2).
- Open the over-twisting on-roof gutter bead with the PREFA gutter bead opener to make it easier to twist later (Fig. 3).
- With PREFA special adhesive, apply a bead of adhesive (approx. 8 mm thick) approx. 50 mm before the end of the gutter (Fig. 4).



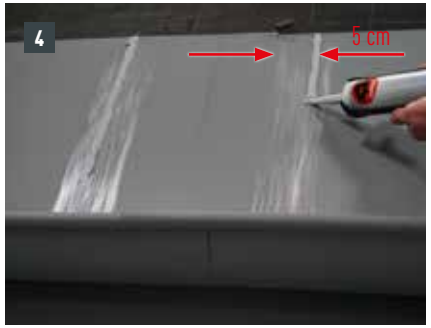
- Twist the on-roof gutter together (overlap ~ 8 cm) (Fig. 5).
- Fit a rivet to the gutter bead. Fix the gutter in the centre with an additional rivet (Fig. 6).

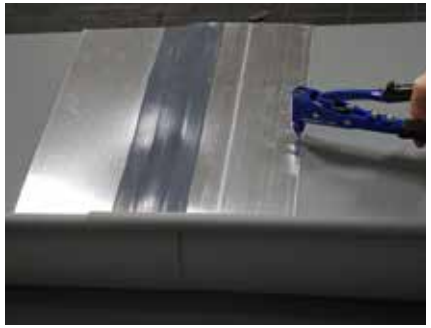
On-roof gutter joints can also executed with 20 pcs. of PREFA rivets in a cross stitch version and sealed with PREFA silicon.

6 INSTALLATION OF ON-ROOF GUTTER EXPANSION JOINT



- Prepare the on-roof gutter bead and twist the on-roof gutters to be connected - overlap approx. 8 cm (Fig. 1).
- Mark the adhesive surface for the on-roof gutter expansion (width approx. 6 cm) and roughen the surface (Fig. 2).



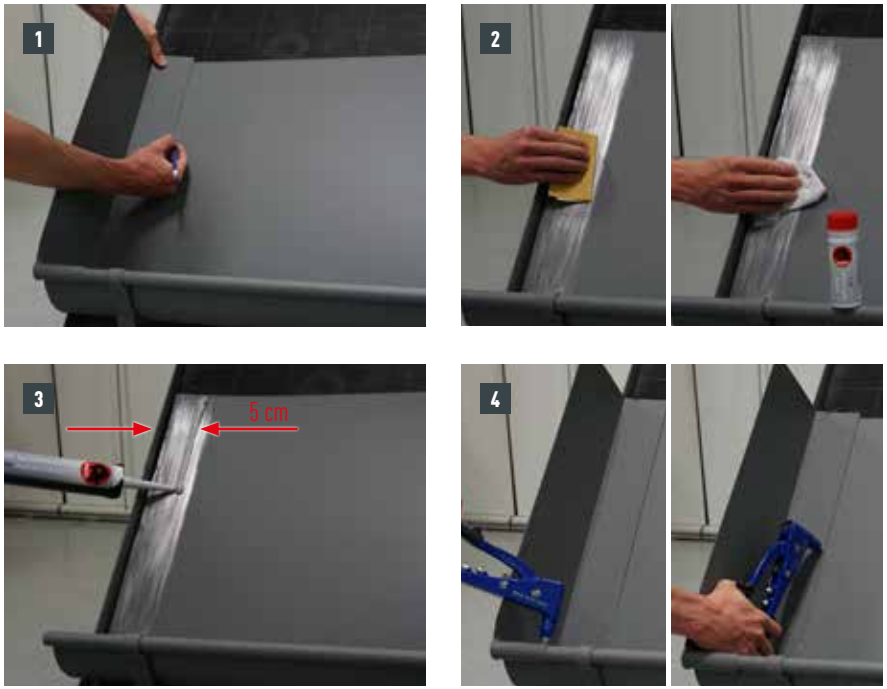


- Clean the surface with provided cleaner. Consider the cleaner to evaporate for about 5 min. (Fig. 3).
- Apply 1 bead of PREFA special adhesive (approx. 8 mm thick) (Fig. 4).
- Place the expansion joint in the prepared area and fasten it to the gutter bead and in the centre of the support surface (in the direction of the rafters) with a rivet (Fig. 5).

NOTE

The joint can be made as a glued or riveted version. Riveted joints must also be sealed with PREFA special silicone.

7 INSTALLATION OF ON-ROOF GUTTER STOP END



- Insert on-roof gutter stop end and mark the overlapping area (Fig. 1).
- Roughen the gluing surface of the gutter and stop end and clean with provided cleaner afterwards. Wait for the cleaner to evaporate for about 5 min. (Fig. 2).
- Apply 1 bead of PREFA special adhesive (approx. 8 mm thick) (Fig. 3).
- Mount on-roof gutter stop end and fasten it to the gutter bead and in the centre of the support surface (in the direction of the rafters) with a rivet (Fig. 4).

DOWNPIPE

1 INSTALLATION DOWNPIPE BRACKET

The downpipes are installed with pipe brackets. Suitable fasteners for the pipe brackets must be selected according to the substructure (façade surface).

Downpipe brackets should be installed with a minimum spacing of 20 mm between the bracket and wall. The distance between the pipe brackets must not exceed 2 m.

Cover caps for dp bracket thread pins can fulfill the following functions:

- Covering worn pipe bracket holes.
- Providing a drip edge in case water runs along the bolt.

NOTE

If necessary, the cover caps must be sealed towards the façade (e.g. special silicone or special adhesive under the cover cap) in order to protect against driving rain.

2 PIPE BRACKET BOLTS FOR ETICS

For use with ETICS façades that have not yet been completed (available for insulation thicknesses of 100 - 180 mm and 180 - 260 mm).

Fig. 5 · PREFA pipe bracket supports for ETICS

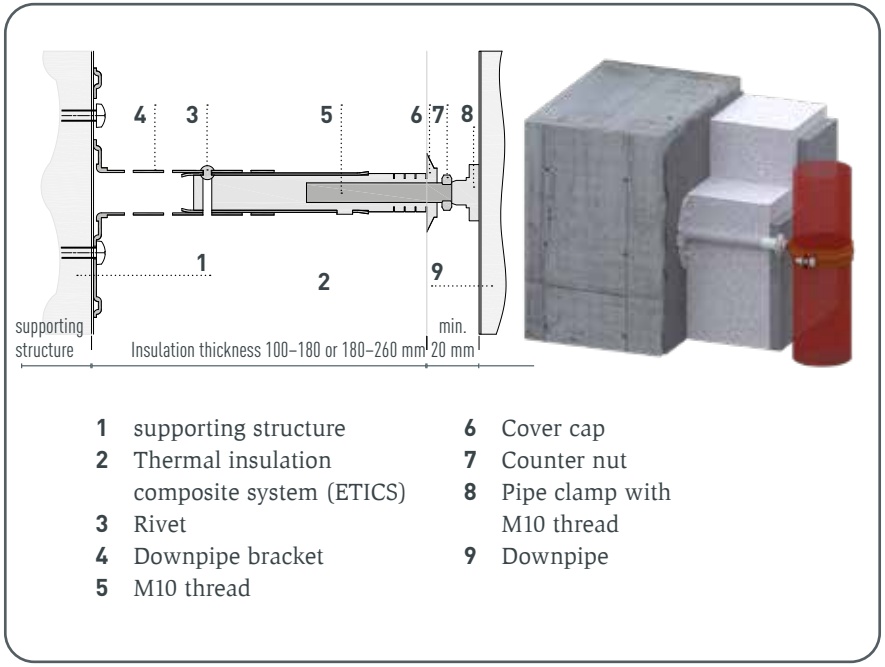
- Determine and mark the position of the pipe bracket support. Observe the vertical and flush installation (Fig. 1).
- Pre-drill the marked points (drill Ø 8 mm) (Fig. 2).

NOTE

Observe the minimum distance to load-bearing external corners and reveals (at least 100 mm).

- Drive in the dowel completely (Fig. 3).
- Adjust the pipe bracket support to the appropriate insulation thickness and fix it with the rivet supplied (Ø 4 mm) (Fig. 4).
- Mount the pipe bracket support with the supplied screws (Torx TX 25) (Fig. 5).
- Slide the cover cap onto the fully mounted pipe bracket support and screw the counter nut onto the threaded mandrel (Fig. 6).

- Screw the pipe clamp with M10 thread to the pipe clamp support. The distance from the pipe to the finished façade surface must be at least 20 mm (Fig. 7).
- Completely installed pipe bracket on ETICS (Fig. 8).

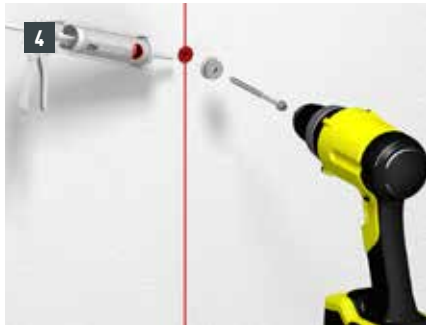


1	supporting structure	**6**	Cover cap
2	Thermal insulation composite system (ETICS)	**7**	Counter nut
3	Rivet	**8**	Pipe clamp with M10 thread
4	Downpipe bracket	**9**	Downpipe
5	M10 thread		

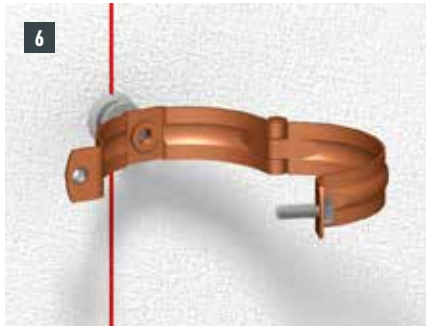
Fig. 6 · Pipe bracket bolts for ETICS

3 PIPE BRACKET DOWEL

For use with existing ETICS façades (insulation thickness 50 - 200 mm possible, min. anchorage depth in the masonry: 70 mm).



- Determine and mark the position of the pipe bracket dowel. Observe the vertical and flush installation. Observe the minimum distance to load-bearing external corners and reveals. In corner areas (e.g. wall corner), the dowel should be pressed in so that the expansion acts parallel to the edge (Fig. 1).
- Pre-drill the marked position with a Ø 10 mm drill according to the length of the pipe bracket dowel. Minimum anchoring depth in the masonry: 70 mm (Fig. 2).
- Drive in the pipe bracket dowel until it is flush with the façade (Fig. 3).
- Push the cover cap onto the pipe clamp mandrel and glue it to the façade with a special adhesive so that it is protected against driving rain (Fig. 4).



- Screw the pipe bracket mandrel into the pipe bracket dowel (with Torx TX 25 or SW13) (Fig. 5).
- Screw the pipe bracket or square downpipe retaining clamp onto the PREFA pipe bracket mandrel (Fig. 6).

NOTE

The distance between the PREFA downpipe and the façade surface must be at least 20 mm. When using the square downpipe, observe a distance of at least 45 mm between the wall and the square downpipe.

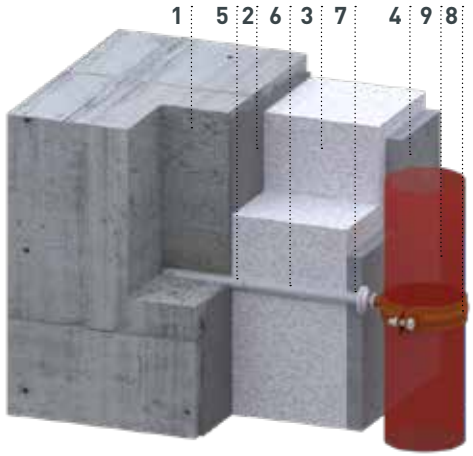


Fig. 7 · Pipe bracket dowel

4 WALL MOUNTING PLATE

Fig. 8 · Wall mounting plate

For use on metallic façades and substructures (aluminium composite panels, trapezoidal façades and shaped pipes).

NOTE

Fastening material is not included in the scope of delivery. Use screws or rivets corresponding to the substructure.

5 PIPE BRACKET BOLT

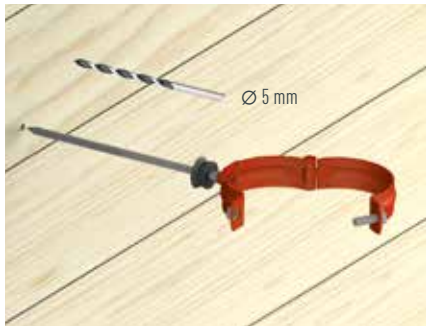


Fig. 9 · Pipe bracket bolt

For use in concrete, brick and wood. Mandrel length 140/200/330 mm. Mark, pre-drill Ø 5 mm, pull on the cover cap and screw in with a TX 25.

If necessary, the cover caps must be sealed towards the façade (e.g. special silicone or special adhesive under the cover cap) in order to protect against driving rain.

NOTE

Take special care when pre-drilling sand-bound substructures.

6 LEADER HEAD

Leader heads are to be mounted on the façade with suitable fasteners, which are to be adapted to the respective substructure.

Installing the seal prevents any water from escaping at the rear of the leader head.

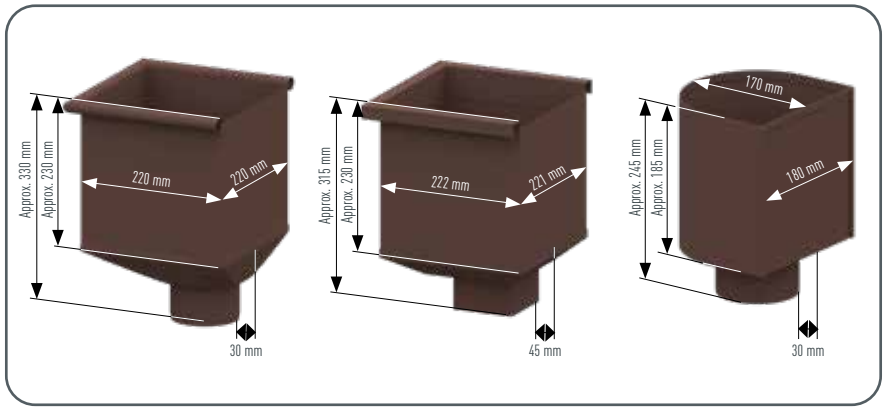
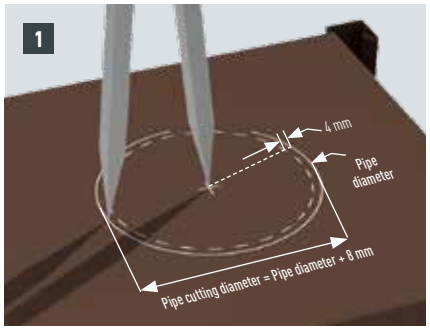
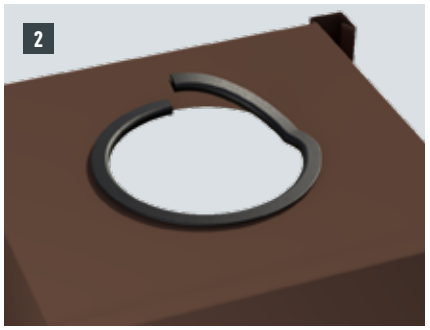


Fig. 10 · Dimensions of PREFA leader heads





- Mark and cut out pipe diameter including allowance for the seal on the back of leader head (Fig. 1).

Allowance for the seal:

- Diameter: 8 mm
- Radius: 4 mm

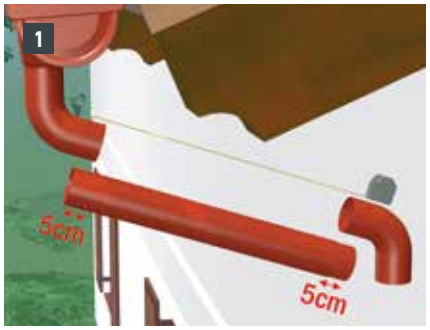
- Push the provided seal onto the cutting edge, starting at the top of the leader head. The joint must be at the top. Then shorten the seal to the appropriate length (Fig. 2).

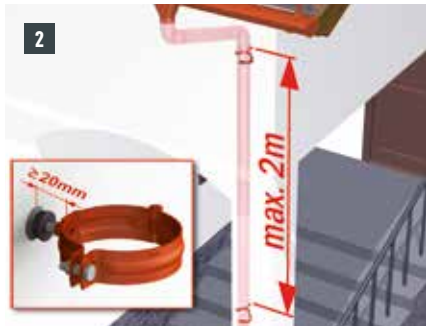
NOTE

Maximum diameter: 120 mm

- Installed seal with connected pipe (Fig. 3).

7 DOWNPIPE INSTALLATION





- Measure the downpipe for the swan neck. Fasten the swan neck to the gutter outlet (Fig. 1).
- Mount pipe brackets to the wall. At least 2 pipe brackets must be mounted for each individual pipe run. The distance between the pipe brackets must not exceed 2 m. The distance from the pipe to the finished façade surface must be at least 20 mm (Fig. 2).

8 PREFA WATER COLLECTOR

The rainwater collector is a practical tool for making the best use of natural resources!

The rainwater collector fills the rain barrel with rainwater directly via the downpipe in the event of precipitation and collects the water up to the desired height.

Fig. 11 · Water collector

9 INSTALLATION

- Decide on a horizontal and firm base for the rain barrel right next to the square downpipe.
- Make a cutout of 165 mm in the downpipe. The top edge of the cutout is approx. 30 mm (or less) above the top edge of the rain barrel. The pipe bracket above must have a minimum distance of 130 mm from the cutout.
- Put the detachable upper part on the upper downpipe and push it upwards. Then edge the upper downpipe edge outwards.
- Widen the lower downpipe by 40 mm.
- Lead the water collector up over the downpipe and then push it down into the widened downpipe.
- Then push the detachable upper part back down onto the water collector. Do not fix the upper part of the collector, otherwise the collector cannot be removed for cleaning.
- Mark the hole for the inlet opening of the barrel level with the hose opening in the water collector. Then drill the hole in the barrel (⌀ 33 mm) and mount the hose connection in the rain barrel.

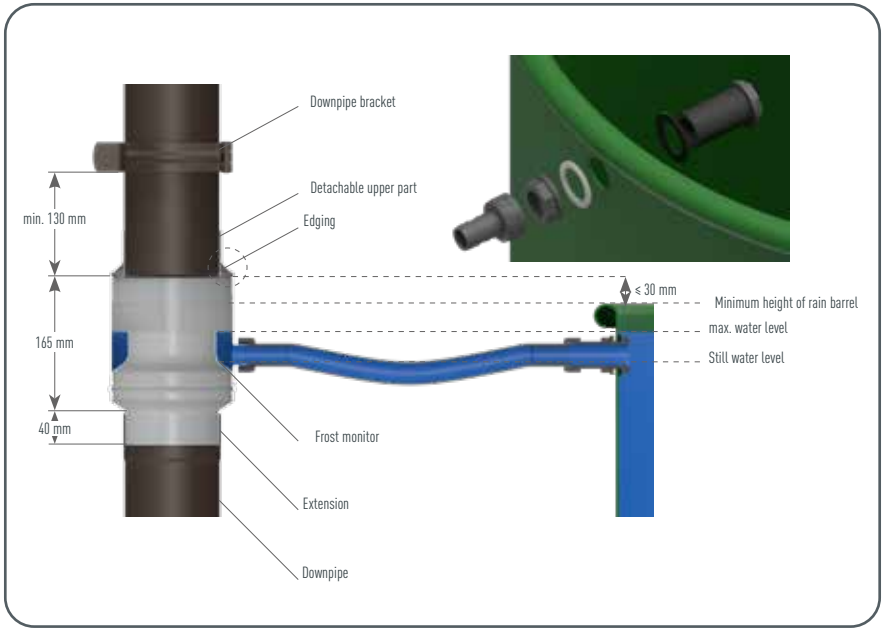


Fig. 12 · Water collector

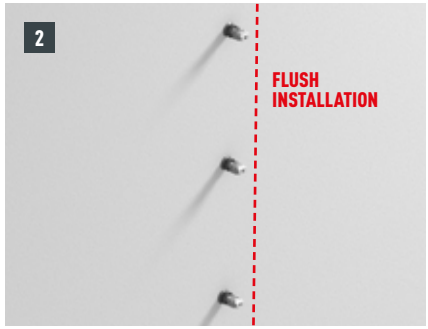
- Connection to the rain barrel:

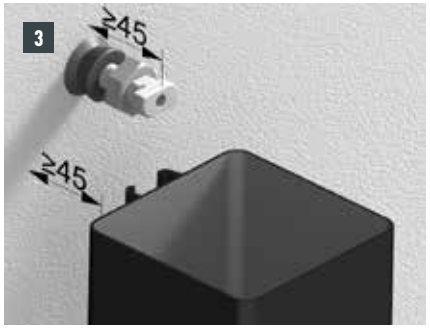
Screw the hose connection onto the water collector then attach a standard 25 mm or 1” garden hose (not included in the scope of delivery).

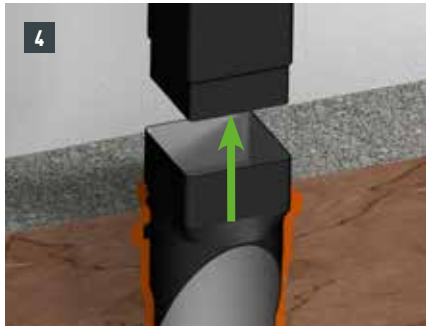
NOTE

Depending on the degree of soiling, leaves, dirt and, if necessary, ice and snow should be removed from the water collector at regular intervals. In order to avoid damage from frost, the hose connection should be removed in winter and the water collector closed with the screw closure supplied.

SQUARE DOWNPIPE







- Position the square downpipe outlet vertically over the drain pipe (Fig. 1).
- Mount retaining brackets in a straight line. At least 2 retaining clamps must be mounted for each individual pipe run. The distance between the retaining clamps must not be more than 2 m (Fig. 2).
- Observe a distance of at least 45 mm between the wall and the square downpipe (Fig. 3).
- Insert the square downpipe socket all the way down into the sewer pipe and mount square downpipe. Then push the square downpipe socket upwards and fix it to the PREFA square downpipe (Fig. 4).

- Always shorten the square downpipe on the side WITHOUT an indentation. If the indentation (tapering) is cut off, pipes can't be slided into each other to join.

NOTE

The square downpipe is available in many different lengths. Make sure you have the right length when ordering to enable waste-optimised work.

PREFA

AS STRONG AS A BULL

ROOF • FACADE • SOLAR

STRENGTH IS OUR PROMISE.

- Aluminium, the strong material for generations
- Perfectly coordinated complete systems
- Over 5,000 products in many colours and shapes
- Guarantee of up to 40 years on materials and colours*
- Personal, all-round service at every stage

LET'S TALK ABOUT IT.

* Information about the material and colour guarantee can be found at uk.prefa.com/guarantee.

WWW.PREFA.COM