BBA BRITISH BOARD OF AGREEMENT
CERTIFICATE No. 97/3434

Classical Cast Iron Rainwater Systems

Classical PLUS

Classical EXPRESS

INSTALLATION ADVICE

(Read in conjunction with BSEN 12056-3)

The purpose of this Guide is to provide detailed information and clear instructions to assist the installer, with methods, to simplify the installation being achieved.

Its objective is to provide the user with all the necessary advice to ensure a trouble-free and quality installation.

For full product range see product manual.

TECHNICAL/PLUMBING ADVISORY SERVICE

In support of Saint-Gobain Pipelines' extensive manufacturing resources a plumbing advisory service is available to customers to provide technical assistance and guidance on installation.

Telephone Helpline: 01952 262529.

ENQUIRIES/SALES: Saint-Gobain Pipelines,
Lows Lane, Stanton-by-Dale, Ilkeston, Derbyshire, DE7 4QU.

Telephone: 0115 930 5000. Fax: 0115 932 9513.

Website: www.saint-gobain-pipelines.co.uk

GENERAL

When working on gutters or fascias at height it is advisable to use scaffolding in preference to ladders. If you are using a ladder please take the following points into consideration: (These points are for guidance only)

1. Ensure the ladder is based on level ground, preferably not soil or grass. If the ladder is based on soil or grass then place a board beneath the legs to spread the load and prevent sinking.

2. If possible, tie the top of the ladder to ring bolts at eaves level.

Before fitting pipes/gutters, ensure that all pieces have been primed and painted, including all cut ends to prevent corrosion. If any pipes/gutters have been cut/drilled, ensure that there are no loose filings on the system as these will quickly discolour the product.

3. We strongly recommend that you do not work alone. Removal and installation of cast iron guttering generally requires two people.

Before replacing an existing system it is advisable to inspect and repair fascia and wall faces before beginning a new installation. All fascias must be in good condition before new guttering is installed as the weight of the cast iron gutters could cause rotten fascias to fall causing damage or injury to property or persons below.

If the building does not have fascia boards, contact your local builders merchant for advice on suitable support brackets, or contact our Technical Advisory department on **01952 262529.**

GUTTER INSTALLATION

STEP 1
Identify route which rainwater will take.

STEP 2
Locate gully/connection to drain and position outlet, taking into account offset projection. (Fig. 1)

STEP 3
Approximately 75mm - 100mm from the end of the run fit a bracket, taking into account the fall down to the outlet. **Note:** For other brackets see "General Notes" (Page 1).

Fix the remaining gutter brackets at maximum centres of 900mm (more frequently in areas prone to high snowfall) along the fall line (as shown in Fig. 2).

Additional brackets should be fitted at a maximum of 150mm from angles and outlets (as shown in Fig. 3). Brackets should be fixed using corrosion resistant wood screws 5mm x 25mm round or pan headed.

Use plumbline or string for alignment when bracketing.

Please Note: When using OG and moulded profiles, we recommend that fascia brackets are used wherever possible.

Fig. 1

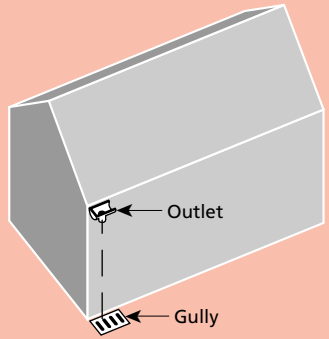


Fig. 2

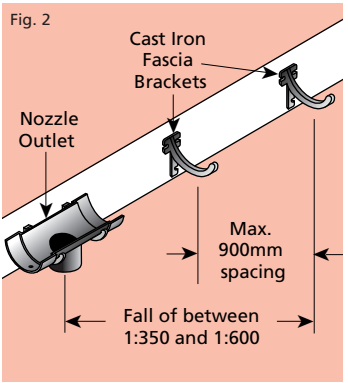
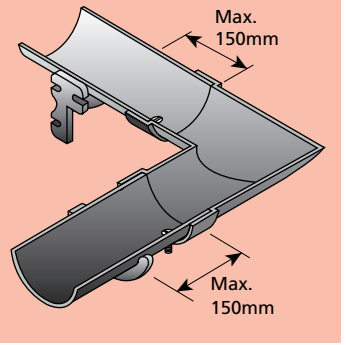


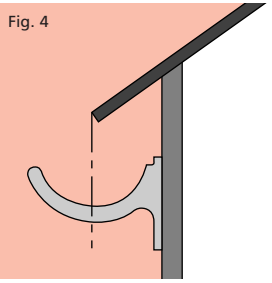
Fig. 3



STEP 4

Ensure brackets are installed so that centre of gutter is beneath the tile edge. (Fig. 4)

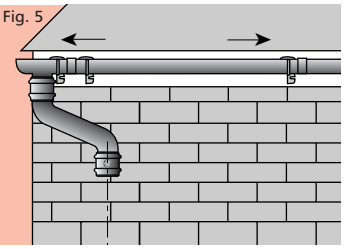
See installation advice, general re: Fascia Board (Page 1).



STEP 5

Position gutters loosely within brackets and assess installation for fall and offset position to rainwater pipe.

Make adjustments as required. (Fig. 5)

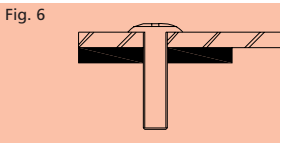


JOINTING

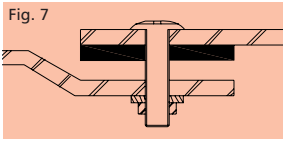
HALF ROUND PROFILE

If installing Half Round Profile Gutters, The **New Cast Iron Jointing Kit** (Product Code 09027) can be used as an alternative to the traditional method. Kit contains enough materials to seal 20 Half Round Gutter Joints (and is suitable for the 100, 115 and 125mm HR sizes. For 150mm HR , see Fig. 10).

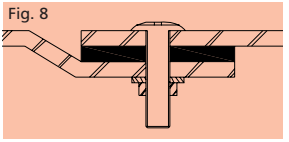
1. Push screw through spigot of gutter or fitting and then through the hole in the gasket material. The hole in the gasket is a tight fit and will locate on the screw while the joint is being made. (Fig. 6)



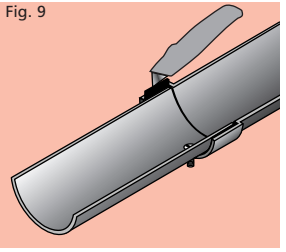
2. Locate the screw, seal and spigot of the gutter or fitting into the socket of the gutter or fitting and fix square nut and washer to the end of the screw. (Fig. 7)



3. Ensure the seal is sitting squarely in the socket and tighten the nut on the screw. (It may be necessary to hold the screw with a screw driver as the seal is compressed. (Fig. 8)



4. Trim excess rubber at the edge of the joint with a sharp bladed knife. (Fig. 9)



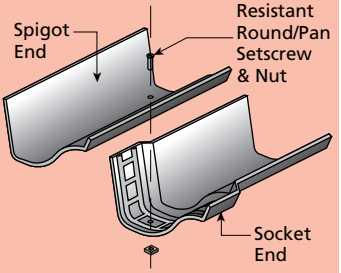
5. Paint gutters, joint and screws as per Installation Guide.

The new Classical Gutter Jointing System has been designed to satisfy the requirements of the latest BS460 draft standard.

BEADED HALF ROUND, DEEP HALF ROUND, MOULDED N0.46, OG, NOTTS OG AND BOX PROFILE

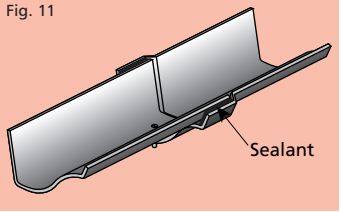
Gutter sockets should be joined to spigots with a specialist rubberised bitumen gutter sealant or a low modulus silicon sealant, then fixed with a corrosion resistant round/pan head setscrew and nut, M6 x 20mm long. (Fig. 10)

Fig. 10



Spread sufficient sealant within the socket, applying additional sealant under the head of the setscrew, when bringing the parts together. The nut should then be finger tightened. Any excess that appears should then be removed. Allow the sealant to 'cure' and then tighten the nut and bolt. Do not over-tighten as this could damage the gutter. (Fig. 11)

Fig. 11



Repeat this procedure for all joints.

See notes regarding replacement gutters.

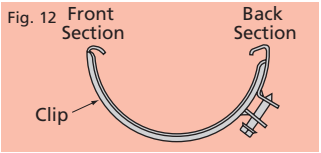
Note: Before installing gutters and fittings, ensure that all pieces have been suitably painted. See painting finish methods. If any gutters have been cut, ensure that there are no loose filings on the system as these will quickly discolour the product.

CLASSICAL EXPRESS CLIP ASSEMBLY

STEP 1

Slacken bolt to the fullest extent (Fig. 12).

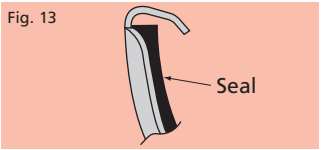
Fig. 12



STEP 2

Locate the gasket centrally within the clip assembly ensuring the seal ends are positioned within the locating lugs (Fig. 13).

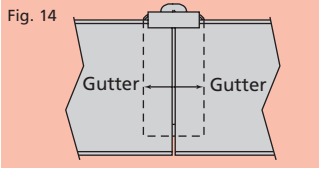
Fig. 13



STEP 3

Locate the black section on the rear gutter edge and ensure clip is positioned equal distant to each end of the gutter. Note: In the case of fittings, use the joint location lugs as a guide (Fig. 14).

Fig. 14



STEP 4

Bring the front section forwards and clips onto the front edge of the gutters. Re-check the position and bolt up tight (Fig. 15).

STEP 5

Typical appearance of assembled joint (Fig. 16).

Fig. 15

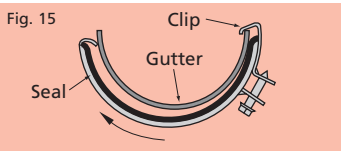
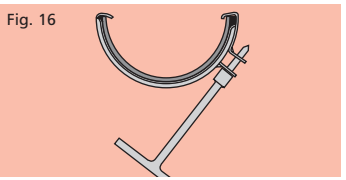


Fig. 16



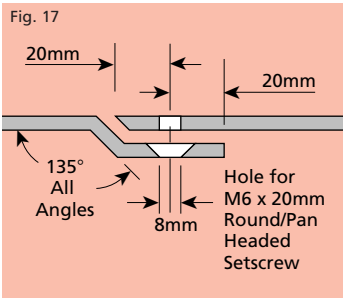
DRILLING GUTTERS

Hole size is 8mm (5/16") and should be positioned centrally 20mm from the spigot of the gutter (Fig. 17).

The hole in a fitting socket will provide a useful template.

We recommend the use of tungsten tipped drills.

Fig. 17



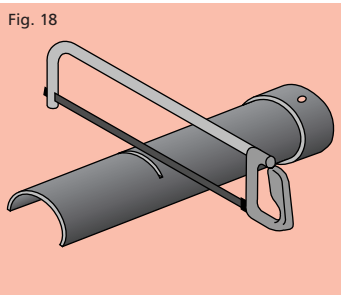
CUTTING

Gutters can be cut using a hacksaw, the blade should be tungsten tipped with 50 teeth per inch.

A powered saw or disc cutter can be used.

Note: Please observe the necessary safety precautions recommended by the tool manufacturer.

Fig. 18



PIPE INSTALLATION (BOTTOM UP)

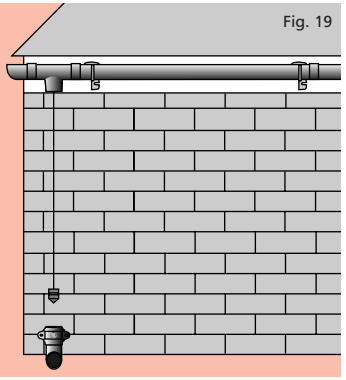
STEP 1

Using plumbline from centre of nozzle / offset, determine position of shoe or connection to drain. (Fig. 19)

STEP 2 (EARED PIPE)

Determine the position of the fixings and drill suitable holes to take rawlplugs or anchors. 8mm x 50mm min. non corrosive fixing should be used without wall spacer

Fig. 19



plate, 8mm x 75mm min. non corrosive fixing with wall spacer plate. (Fig. 20)

Note: Cast Iron Spacer plates may be required if wall is uneven and will also allow for easier maintenance. These should be fixed with the flat back plate to the back of the pipe ear.

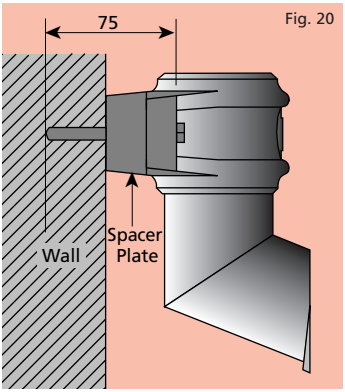


Fig. 20

STEP 3

The pipe spigot is offered into the shoe socket and positioned in line with the plumbline, hole centres are then marked through centre of elongated holes in ears, this will allow for adjustment. (Fig. 21)

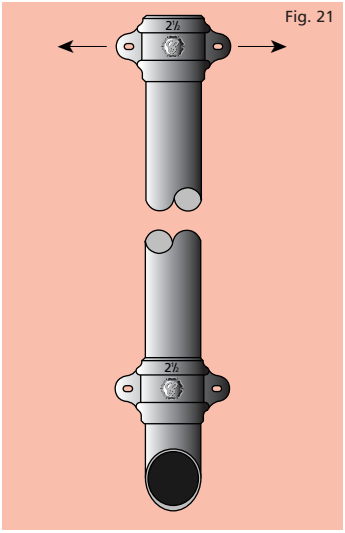


Fig. 21

STEP 4

Drill and fix as shoe.

STEP 5

Repeat until last full length is fixed, ensuring in each case that the pipe spigot is fully seated in supporting socket.

STEP 6

The last pipe length should be measured from the internal base of the socket to the underside of the gutter nozzle (A), or to the spigot of the offset (B), remembering to include the depth of socket in overall length. (Fig. 22)

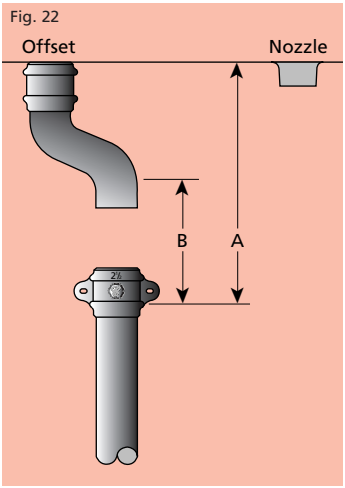


Fig. 22

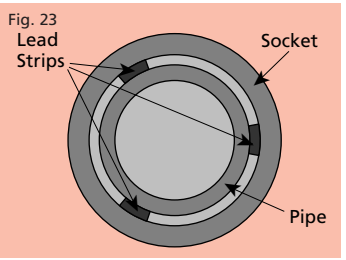
STEP 7

Cut pipe to length allowing 5mm for clearance on length and fix as previously described. **Note:** It may be necessary to lift gutter to locate nozzle in the pipe socket.

STEP 8

Finally, to centralise and secure pipe joints, use wedges made up from sheet lead cut into 30mm strips, rolled and tapped, between socket and pipe.

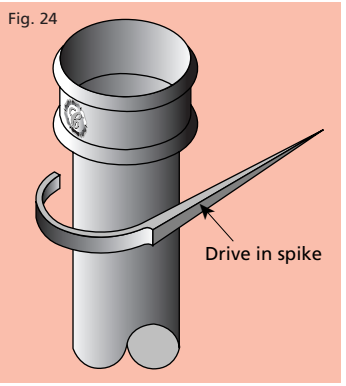
This should be inserted in 3 places to avoid any rattle. (Fig. 23)



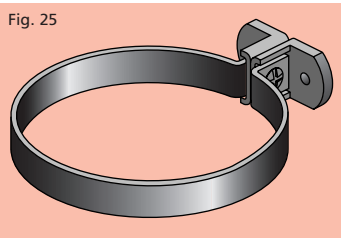
UNEARED PIPE FIXING

These can be fixed using a drive in spike (tradename, Holdfast), wrought iron or galvanised mild steel. (Fig. 24)

A wall fixing bracket made in galvanised mild steel can also be used by drilling suitable holes and inserting rawlplugs to take 50mm (depth) screw. The bracket will then be located to the back plate supplied. (Fig. 25)



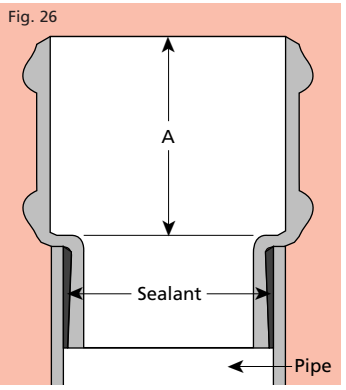
Note: For rectangular pipes, a cast iron decorative ear band can be supplied by Saint-Gobain Pipelines for fixing pipes to the wall.



LOOSE SOCKETED PIPE FIXING (BOTTOM UP)

Installation is as for Classical fixed socketed pipe, the loose socket, however, is loosely inserted into the pipe before establishing fixed centres.

The socket will perform without the need for filling in the vertical position, but if preferred a suitable low modulus sealant or filler can be used.

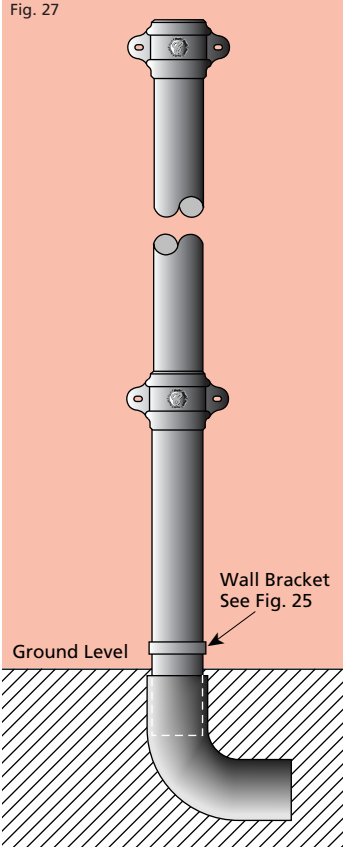


To establish pipe length required, loosely insert socket and follow Step 6 in Fixed Socket Section.
Note: Allowances for socket depths, refer Dimension A. (Fig. 26)

Note: When cutting pipe to length, ensure cut ends are clean and square to give a neat appearance. Any gaps can be filled using a proprietary mastic filler for external use.

In a situation where the connection at the base of the rainwater stack runs into the drain inlet, a galvanised steel wall fixing bracket or eared access pipe (100mm only) will be required to retain pipe barrel. (Fig. 27)

Fig. 27



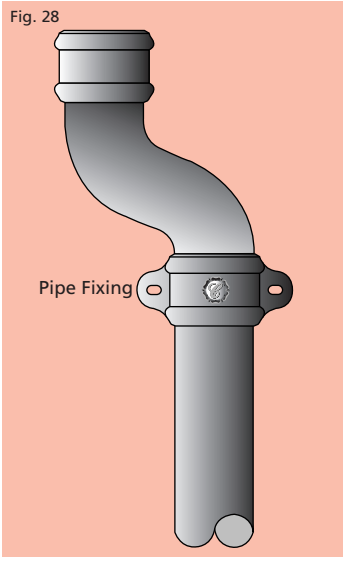
TOP DOWN FIXING (FIXED SOCKET)

This is the reverse procedure to the previous section. The first pipe to be fixed is positioned and marked relative to the offset/ gutter nozzle. (Fig. 28)

The process is repeated up to the last full pipe length.

The pipe at the base of the stack will have to be cut to length relative to the shoe.

Fig. 28



LOOSE SOCKETED PIPE (TOP DOWN)

STEP 1
The loose socket is located and fixed so that it fully supports the offset, or is located beneath the nozzle.

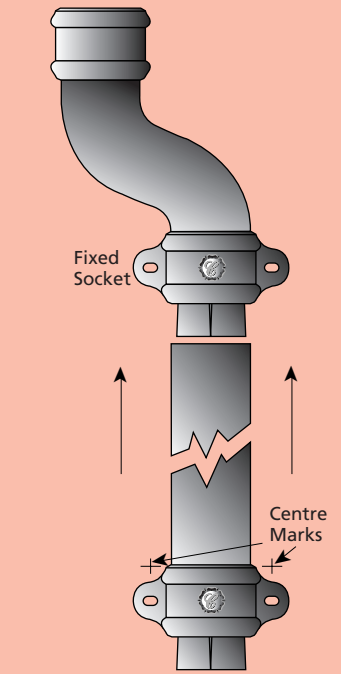
STEP 2
A pipe barrel is then inserted into the inlet of the loose socket.

STEP 3
Both pipe and socket are then offered to the fixed socket spigot ensuring that the pipe end is located to the underside of the fixed socket.

STEP 4
Holes on the loose socket are marked, drilled and socket is then fixed.

STEP 5
This is repeated until stack is completed.

Fig. 29

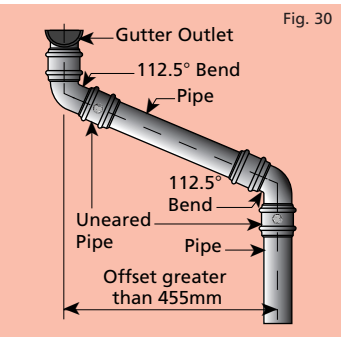


ADDITIONAL INFORMATION

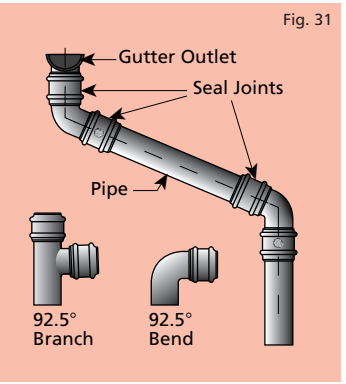
MAKING UP OFFSETS

When the projection of the fascia is in excess of 455mm the offset is formed with a pipe offcut, and two 112 1/2 bends (as shown in Fig. 30).

Fig. 30



SEALING PIPE JOINTS

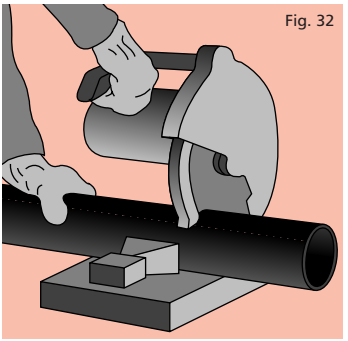


With vertical pipes, joints are usually left unsealed in the sockets so that if any blockages occur the rainwater pipe does not fill up with water to the eaves and create a nuisance.

Only seal joints between gutter outlet and rainwater pipe or offset. (Fig. 31)

Also, any joint which is in the horizontal position such as 90° Branch arms or Bends etc.

CUTTING PIPE



How do you cut a length of cast iron pipe or gutter? With pipe there are three methods.

Firstly the easiest and quickest way is by using a powered disc cutter or metal saw (as shown here Fig. 32).

Secondly, by pipe wheel cutter, which takes slightly more time but gives a neat square edged cut.

Thirdly, by hacksaw, although a tungsten tipped or 50 TPI blade is usually required.

Note: Snap cutters are not recommended for use on cast iron pipes etc., and safety equipment, for instance eye protection, should be worn at all times.

Always follow guidelines laid down in health and safety regulations.

PAINTING/FINISH METHODS

Classical cast iron rainwater systems are supplied in a black primer coating or in "Plus" finish (a semi-gloss, black topcoat) - available on Express, standard HR and Ogee gutters and fittings and circular downpipes and fittings.

Painting - *(on site, prior to installation)*

When preparing the pipe, gutter and fittings for the on-site finishes, inspect the products, wire brush and touch up the factory applied primer coating, with a metal primer, (if and where necessary) after first ensuring all surfaces are degreased with thinners and are dust free.

Apply an undercoat (usually 2 coats), before finishing the product with a top coat to suit the building decor. We recommend that only a suitable, good quality paint finish is used to ensure minimal maintenance.

Please note that extra care should be given where cast iron is being installed in exposed coastal areas.

Always consult paint manufacturers' recommendations. Some exterior paints may not be suitable for painting over the water-based primer.

Saint-Gobain Pipelines does not accept any responsibility for the performance of any customer-applied, finished coat systems. It is the responsibility of the installer/purchaser to examine and repair any coating damage to the factory-applied primer coating, before applying further primer and top coats prior to installation.

CLASSICAL PLUS (Finish Coat)

- Product is supplied wrapped to protect from physical damage
- Install as Classical
- Following installation it is important that any slight installation damage to the coating is repaired with the appropriate quick drying touch up paints available. Product Code 09680 (Primer) and 09681 (Top Coat).

MAINTENANCE

Cast iron rainwater gutter systems are designed and manufactured to give many years of reliable service, but to achieve this, regular inspection and minimal routine maintenance should be carried out including:

1. Annually check and clear the gutter systems & rainwater heads of any leaves and debris that could cause a potential blockage (may require more checks if in close proximity of trees etc).

2. Also inspect the condition of the paintwork at the same time as 1. wiping clean any film built up, to protect the surface finish.

3. Also check on security of fixings and joints.

If the manufacturers installation and paint suppliers instructions are adhered to re-painting should not be required for approx 5 years or longer. (Unless subject to aggressive atmospheric conditions i.e. coastal towns and providing the integrity of the finish coat is maintained).

EQUIPMENT REQUIRED

TOOLS

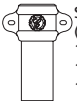
Drill
Screwdriver
Adjustable Spanner
Hacksaw - Disc Cutter
Wirebrush
Plumbline
Pencil / Marker
Ladder
Scaffold
Paint Brush
Scraper
Spirit Level
Tape Measure

MATERIALS

Classical gutters and rainwater fittings etc.
Paint - metal primer, undercoat, topcoat
Mastic Sealant - low modulus (suitable for overpainting)
Setscrews and Nuts (gutter bolts 6mm x 25mm long)
Wall Anchors - for pipe sockets (50-75mm min. length)
Lead strips - to wedge in sockets
Round headed woodscrews (5mm x 25mm long)
Round/Pan headed setscrews (6mm x 20mm long)

PRODUCTS	SIZES

CLASSICAL RAINWATER PIPES (A585)*



Single Socket Eared (overall length)

1829mm	65
1829mm	75
1829mm	100

Single Socket No Ears (overall length)

1829mm	65
1829mm	75
1829mm	100

PLAIN BARRELS*

(overall length)	65
1750mm	75
	100

LOOSE SOCKETS (A586)*

Eared	65
Eared	75
Eared	100

No Ears	65
No Ears	75
No Ears	100

WALL SPACER PLATE (A584)*

Cast iron -	65
for use with eared	75
pipes and shoes	100

SHOES FRONT (A588)*

Eared	65
Eared	75
Eared	100
No Ears	65
No Ears	75
No Ears	100

RAINWATER DIVERTER KIT (A593)*

NEW

No Ears	65
No Ears	75
Eared	65
Eared	75

ACCESS PIPE (A590)*

No Ears	65
No Ears	75
No Ears	100
Eared	65
Eared	75
Eared	100

BENDS (A591)*

92½°	65
92½°	75
92½°	100
112½°	65
112½°	75
112½°	100
135°	65
135°	75
135°	100

BRANCHES (A592)*

92½°	65
92½°	75
92½°	100
112½°	65
112½°	75
135°	65
135°	75

PRODUCTS	SIZES

OFFSETS (A594)*

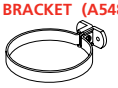
75 projection	65
75 projection	75
75 projection	100
115 projection	65
115 projection	75
115 projection	100
150 projection	65
150 projection	75
150 projection	100

OFFSETS*

225 projection	65
225 projection	75
225 projection	100
305 projection	65
305 projection	75
305 projection	100
380 projection	65
380 projection	75
380 projection	100
455 projection	65
455 projection	75
455 projection	100

GALVANISED STEEL WALL-FIXING BRACKET (A548)*

NEW

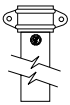


65	
75	
100	

DRIVE-IN SPIKE (A459)

65	
75	

CLASSICAL PIPES (A601)



Rectangular & Fittings Eared	100 x 75
Rectangular No Ears	100 x 75

HEADS

Flat Hopper (A750)*	
210 x 160 x 185	65
210 x 160 x 185	75
250 x 215 x 215	100

Flat Rectangular Box (A841)*	
225 x 125 x 125	65
225 x 125 x 125	75
Flat Rectangular Box (A842)*	
280 x 150 x 130	100

Rectangular (A484)*	
300 x 250 x 200	65
300 x 250 x 200	75
300 x 250 x 200	100

Castellated Rectangular (A485)*	
250 x 180 x 175	65

Rectangular (A485)*	
250 x 180 x 175	75
250 x 180 x 175	100

**** These products are available primer coated or "Plus" finish***

PRODUCTS	SIZES

HR GUTTER & CONNECTIONS

Half Round Gutter **(G800)***

1829mm length	100
1829mm length	115
1829mm length	125
1829mm length	150

Right Angle Double Socket **(G802D)***

90°	100
90°	115
90°	125

Right Angle Single Socket **(G801)***

90°	100
90°	115
90°	125
90°	150

Left Angle Single Socket **(G802)***

90°	100
90°	115
90°	125
90°	150

Right Angle Single Socket **(G801)***

135°	100
135°	115
135°	125
135°	150

Left Angle Single Socket **(G802)***

135°	100
135°	115
135°	125
135°	150

Union Clip **(G803)***

	100
	115
	125
	150

Stopend for Spigot **(G804)***

	100
	115
	125
	150

Stopend for Socket **(G805)***

	100
	115
	125
	150

Nozzle **(G806)***

65mm outlet	100
65mm outlet	115
65mm outlet	125
75mm outlet	100
75mm outlet	115
75mm outlet	125
75mm outlet	150
100mm outlet	150

PRODUCTS	SIZES

Dropend with socket **(G807)***

65mm outlet	100
65mm outlet	115
75mm outlet	125
75mm outlet	150
100mm outlet	150

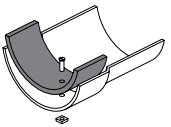
Dropend with spigot **(G808)***

65mm outlet	100
65mm outlet	115
75mm outlet	125
75mm outlet	150
100mm outlet	150

Fascia Bracket **(G809)***

	100
	115
	125
	150

Cast Iron Gutter Jointing Kit **(G873)** NEW



	100
	115
	125

OG GUTTER & CONNECTIONS (G840)*

1829mm length	100
	115
	125

Angle Internal **(G841)***

90°	100
90°	115
90°	125

Angle Internal **(G841)***

135°	100
135°	115
135°	125

Angle External **(G842)***

90°	100
90°	115
90°	125

Angle External **(G842)***

135°	100
135°	115
135°	125

Union Clip **(G843)***

	100
	115
	125

**** These products are available primer coated or "Plus" finish***

PRODUCTS	SIZES
Stopend for Socket **(G844)*** 	100 115 125
Stopend for Spigot **(G845)*** 	100 115 125
Nozzle **(G846)*** 	65mm outlet 100 65mm outlet 115 65mm outlet 125 75mm outlet 125
Fascia Bracket **(G849)*** 	100 115 125

OTHER GUTTER PROFILES

DEEP HR GUTTER & CONNECTIONS (G810)

100 x 75
125 x 75

3mm THICK HR DOUBLE BEADED GUTTER & CONNECTIONS (G820)

100
115
120

No 46 MOULDED GUTTER & CONNECTIONS (G830)

100 x 75
125 x 100

NOTTS OG GUTTER & CONNECTIONS (G850)

1829mm length — 115

BOX GUTTER & CONNECTIONS (G860)

1829mm length — 100 x 75

Gutter **(G880)***

1830mm length — 125

90° Angle **(G881)***

125

45° Angle **(G882)***

125

PRODUCTS	SIZES
Transitional Clip **(G883)***  Connect to 115mm & 125mm BS460 half round gutter	125
Nozzle **(G885)*** 	125 x 75
Fascia Bracket **(G886)*** 	125
Jointing Clip **(G887)***  Complete with Gasket Seal	125

6 pack of spare Gasket Seals **(09214)**

T Spanner **(09217)**

DIMENSION (SIZE) KEY:

Pipe:
65mm - 2½" imperial size
75mm - 3" imperial size
100mm - 4" imperial size
100 x 75mm - 4" x 3" imperial size

Gutter:
100mm - 4" imperial size
115mm - 4¼" imperial size
125mm - 5" imperial size
150mm - 6" imperial size
100 x 75mm - 4" x 3" imperial size
125 x 75mm - 5" x 3" imperial size
125 x 100mm - 5" x 4" imperial size

Half Round and common Ogee gutters and connections are manufactured in accordance with BS460
All products are supplied in a black primer coating

**** These products are available primer coated or "Plus" finish***