



# Procter Cast Stone

Products, Specialist Installation  
& Technical Information

# Technical Overview

## Standards

All cast stone products manufactured exceed BS1217 standards.

## Material Type

Vapour cured semi-dry cast stone.

## Curing Method

Vapour cured under controlled conditions in a curing chamber.

## Cube Compressive Strength

The cast stone shall have a minimum cube compressive strength of 35 MPa, which represents a strength at least 40% higher than the BS 1217 requirement.

## Weathering Grade

The permeability and durability of the cast stone, when tested in accordance with the Capillary Absorption Test (CAT) shall not exceed 1.0mg/mm<sup>2</sup>.

## Durability Against Freeze / Thaw

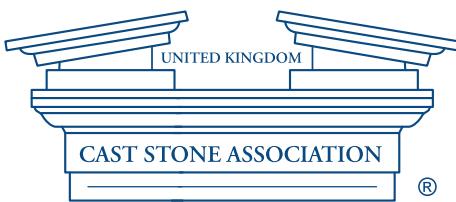
Products complying with these requirements are deemed to be freeze / thaw resistant.

## Bond Strength

In accordance with BS EN 998-2 for general purpose mortar - the Characteristic Shear Strength is 0.15N/mm<sup>2</sup>.

## Thermal Conductivity

In accordance with BS EN 1745 -  $\lambda$  value for cast stone is in region of 1.2 to 1.7 W/mK for a 5% moisture content product.



# Welcome to Procter Cast Stone

Procter Cast Stone is part of the Newlay Concrete Ltd group of companies. We put great emphasis on both high quality cast stone products, turn-key installation services and outstanding customer service. Located in the heart of West Yorkshire close to the M62, M1 & A1 we are well positioned to deliver cast stone products to sites across the UK via our specialist logistics provider.

At Procter Cast Stone, we manufacture and supply high quality standard and bespoke Cast Stone products for projects throughout the UK. These are used for a very wide range of residential, retail, religious, self build, ornamental and restoration applications. We are the only vapour cured cast stone manufacturer that can offer a full turn-key in-house installation and aftercare proposition..

## **What we can do for you - The Procter Cast Stone service**

### **1. Technical consultation**

This is where a project usually starts and our technical team provide free consultation to specifiers to help in the selection and design of all cast stone features.

Early involvement from us in project planning ensures the successful incorporation of the features to suit aesthetic, performance and budget parameters, as well as scheduling deliveries to suit the programme requirements.

### **2. Site survey**

We are always very happy to meet our customers on site to discuss in detail the technical requirements for the features, take dimensions, assess quantities, agree schedules, match existing stonework colours etc. and give recommendations on handling and installation procedures.

### **3. Custom design service**

In addition to our comprehensive range of standard designs, we very much specialise in the manufacture of individually designed cast stone features to meet specific project requirements.

Once these requirements are agreed, CAD drawings are prepared and submitted to the client for prior approval. Accurate production moulds are then manufactured.

### **4. Detailed quotation**

Fully detailed quotations are provided from architects designs or bills of quantity to suit a customer's tender dates. Budget prices are also given when requested.

### **5. Manufacture**

Once the full requirements are agreed and the quotation approved, we start the manufacturing process. This is carried out at our factory in Garforth, West Yorkshire, and under closely controlled conditions to ensure consistent high quality standards of production and curing.

### **6 Specialist in-house installation services**

## Vapour Curing Technology

Cast stone must be cured correctly to ensure its long-term structural integrity, durability and good appearance. Furthermore, the high strength achieved by correct curing of cast stone provides resistance to damage during transportation, handling and installation.

A common misconception is that curing allows the cement-based product to dry, but sufficient moisture is essential for completion of the chemical reaction that gives the product its strength.

BS 1217, the British Standard for cast stone, specifies a minimum curing time of 14 days before cast stone should be transported or installed – and an extended period may be required for structural units. However, this time can be reduced if an accelerated curing process is employed.

## The Benefits of Vapour Curing

Procter Cast Stone has invested in a state-of-the-art vapour curing chamber that maintains the optimum temperature and humidity of the environment in which the units are placed for a defined time period after casting. This climatic control speeds the curing process and enables the total time to be reduced considerably from the conventional 14 days. This controlled method of curing ensures that all our products are cured evenly and are of an exceptional standard.

The commonly used method adopted by others within the cast stone industry is a 14-day period from casting to transportation includes an initial curing period of 12-14 hours away from direct sunlight and winds that can cause a loss of water by evaporation. After the initial 12-14 hours, the product can be moved into protected storage, where it should remain until 14 days have elapsed. During this period the units can be affected by climatic conditions resulting in unevenly cured stone.

Our quality control, manufacturing process and vapour curing chamber result in our cast stone units having compressive strengths at least 40 percent higher than can be achieved by some of our competitors.



## We design, manufacture and can install high quality cast stone products

To ensure you get the best cast stone, great emphasis is placed on both high product quality and outstanding customer service. Our cast stone products are made from a semi-dry matrix that has been developed over many years, and is cost-effective and offers consistent quality and colour. This means you can use our products with confidence in a very wide range of applications, including residential, retail, commercial, religious, self-build, as well as restoration projects where stone detailing is required.

### What you can expect from Procter Cast Stone at a glance

- Outstanding expertise in cast stone with over 26 years of manufacturing excellence
- The ability to create custom designed products in virtually any stone colour
- Design advice in conjunction with using your architect's drawings
- Standard products kept in stock
- Full UK and Overseas coverage from our central base
- Fast track production delivering cast stone products just when you need them
- Expertise in all building types including residential, commercial, retail and religious
- Our own mould making studio is a key factor in providing you with very high quality products and is great value for money

# Aftercare Service

## What is Procter Cast Stone aftercare service?

Not only is the installation of cast stone an important factor but the aftercare and maintenance is too. By ensuring the upkeep of your cast stone, your products will remain in perfect condition which allows for a more long-lasting appearance and finish. Procter Cast Stone offers a variety of services, undertaken by our team of experts and specialists to help you keep your stone in the best state possible.



BEFORE



AFTER

### Cleaning

Quite often, our cast stone can get dirty and soiled during the construction phase of a project. Dust from cutting, mortar stains and other staining can leave the customer with a finish that doesn't truly reflect our high standards and quality cast stone. It's a shame to see our product condition be compromised by other trades on site. The cleaning of cast stone is a specialist service as it includes the use of acids with which care needs to be taken not to change the surface texture or appearance of the stone.

### Pointing

This is something that a lot of people struggle to get right. The mix for pointing cast stone is vastly different from a brick pointing mix and unfortunately a lot of the time it is not done correctly which can spoil the finished look. We can help out by carrying out this part of the work even if the customer doesn't utilise our installation service. By having our team do this (usually in tandem with a thorough clean), the customer can ensure a finished look that mirrors the worth of their project. As part of this service, we can also redo any poor pointing by the previous builders by grinding out the incorrect pointing and doing it again to a higher standard that the customer will be more than pleased with.

### Repairs

If handled incorrectly cast stone can get damaged, particularly on sharp corners and arises. Procter Cast Stone offer a repair service where our team of specialists will undertake almost any project to make your stone look as if it were brand new. Although there is a cost to the customer for this, it is cheaper and quicker than requesting new stone for replacing anything that has been damaged.

## Recent Installation Projects



# Specialist Installation



It is essential that the installation method chosen by our clients matches the exceptional quality of our products. Quality craftsmanship and attention to detail are essential when choosing a contractor to install any type of stone product.

Procter cast stone employ our own professional experts that will ensure that your cast stone is installed in-line with our high standards and meets every client's expectations.

You will also have the peace of mind that the cast stone remains our responsibility right up until the installation is complete and signed off. In this aspect, there's an added reassurance that your investment remains secure throughout the install.

All installation projects include site surveys, site meetings, full set of drawings and all materials required to carry out the project.

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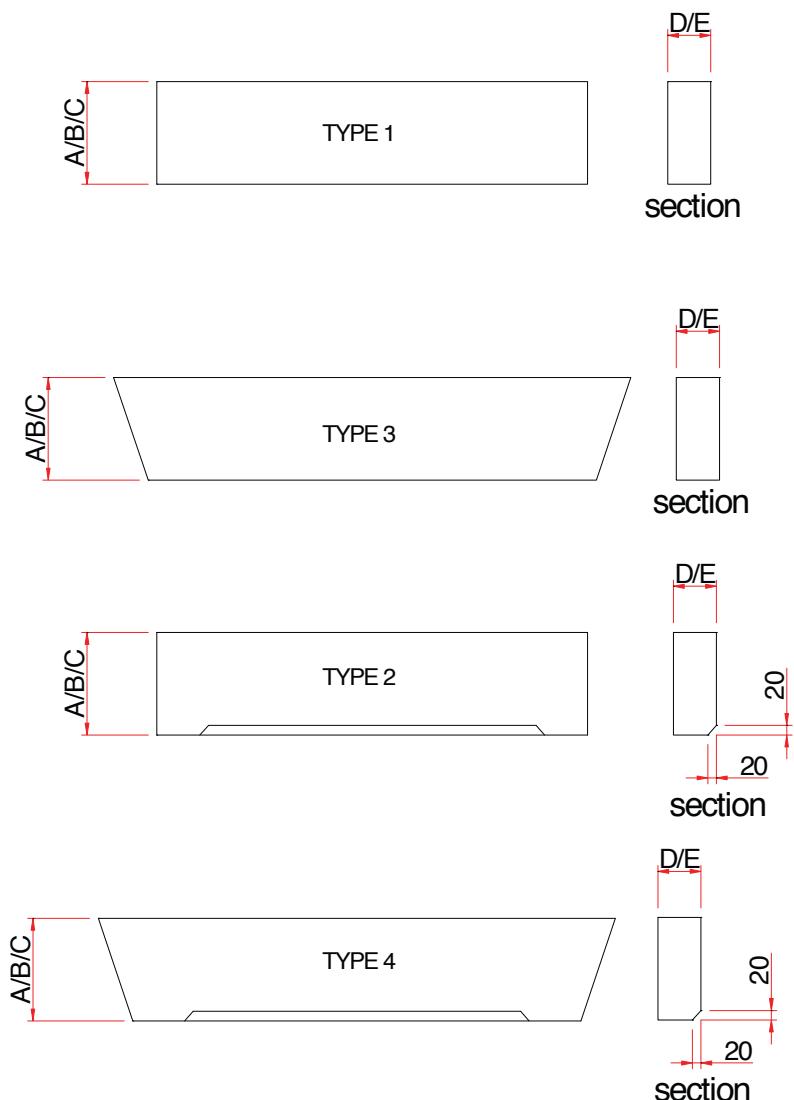
## We specialise in and commonly install:

- Porticos
- Facades
- Ballustrade
- Pediments
- Columns
- Colanades
- Orangeries
- Copings
- Window Surrounds
- Restorations
- Historical buildings
- Religious buildings

By retaining us as a specialist installer, you can be sure that we will get the job done right first time. This can, in the long run, save you money and lower the risk of using someone whose experience in handling and installing cast stone is limited.



# Heads



#### Lintel heights

A = 140mm  
B = 215mm  
C = 290mm

#### Lintel depths

D = 100mm  
E = 120mm

140mm & 150mm depths also available

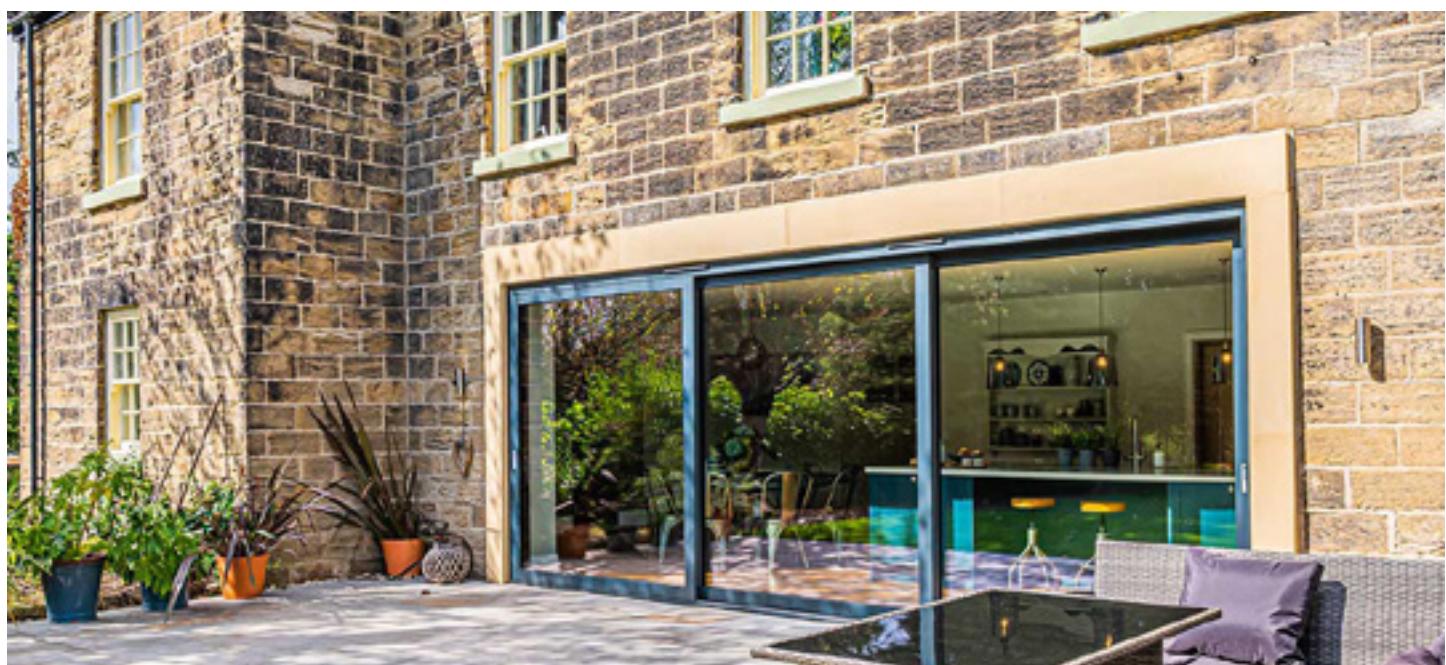
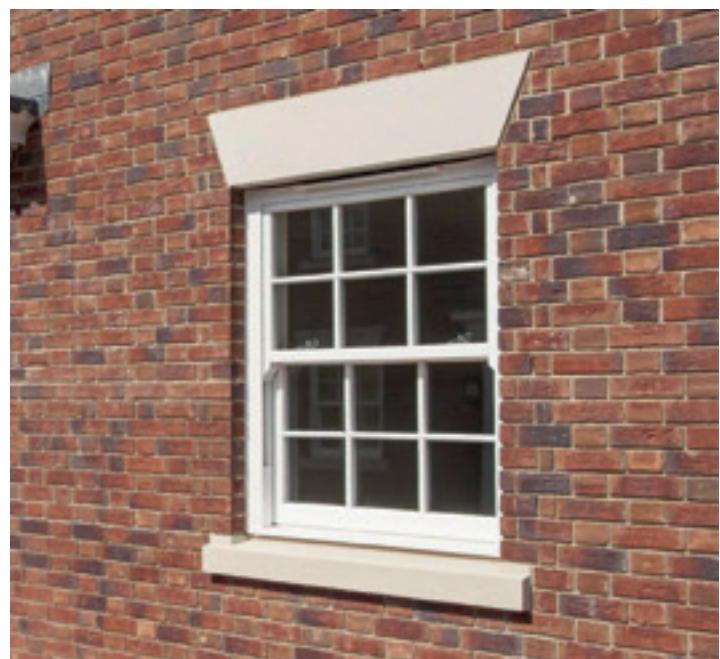
#### Typical weights

140mm x 100mm - Approx 30kg per LM  
215mm x 100mm - Approx 46kg per LM  
290mm x 100mm - Approx 69kg per LM

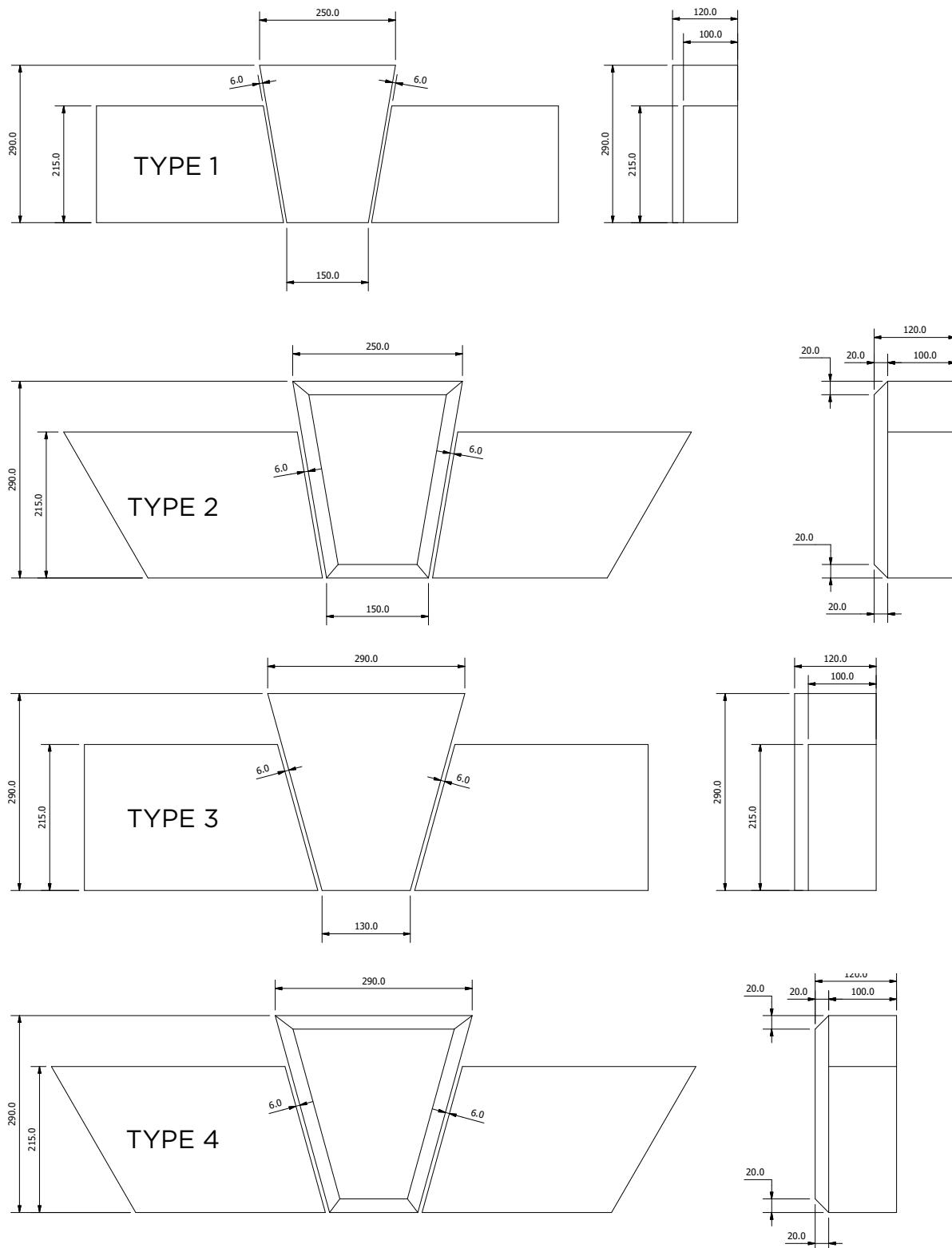
140mm x 120mm - Approx 36kg per LM  
215mm x 120mm - Approx 55kg per LM  
290mm x 120mm - Approx 75kg per LM

Units can be supplied with cast in lifting sockets if specified.  
Units exceeding slenderness ratio will be supplied sectional (please consult sales team).

Splayed lintels incorporate an 80mm splay to each end.  
Semi-dry cast lintels are non load bearing and should be used in conjunction with a suitable structural lintel as per recommendations.



# Keystone

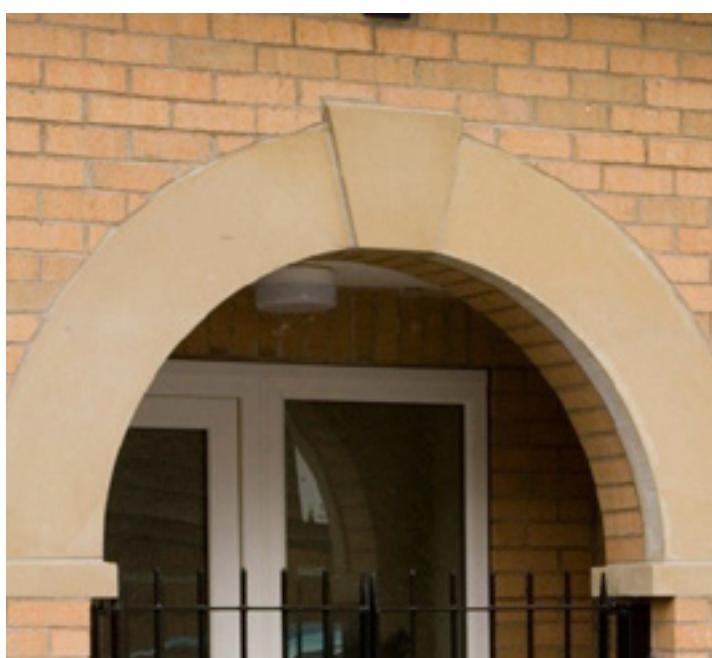


KEYSTONE SHOWN CAN BE USED IN CONJUNCTION WITH ALL STANDARD HEAD TYPES

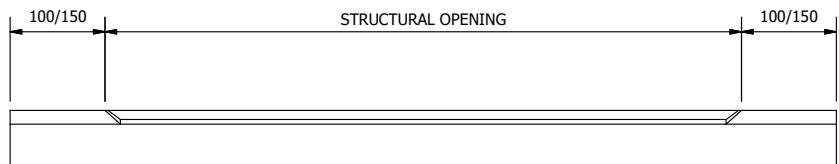
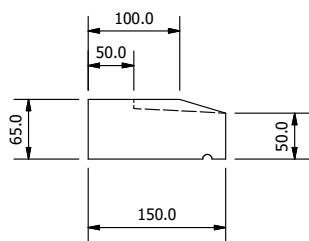
WHERE A PROJECTING KEYSTONE IS REQUIRED (KEYSTONE TYPES 1&2) THE HEAD WILL BE SUPPLIED IN MINIMUM OF 3PCS  
 LINTELS COMPRISING OF KEYSTONE TYPE 3&4 CAN BE SUPPLIED IN 1PC SUBJECT TO REQUIREMENTS & LENGTH RESTRICTIONS  
 ALL HEADS ARE NON-LOAD BEARING COMPONENTS AND MUST BE USED IN CONJUNCTION WITH A SUITABLE LOAD RELIEVING LINTEL.  
 PLEASE CONSULT YOUR ENGINEER PRIOR TO INSTALLATION.

NON-STANDARD KEYSTONES MANUFACTURED TO ORDER. KEYSTONES TO SUIT LINTELS IN RENDER ALSO AVAILABLE

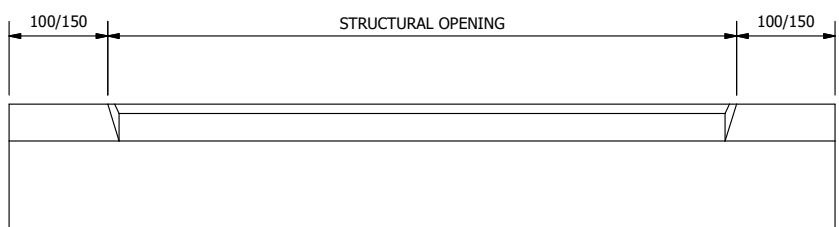
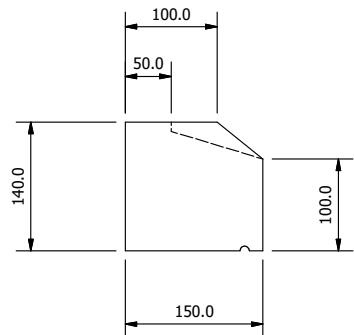
KEYSTONE TYPE 1&2 TO BE USED ONLY WITH LINTELS 215mm OR 290mm HIGH. THE FORMER ACHIEVING A PROJECTED KEYSTONE AS ILLUSTRATED.  
 KEYSTONES TYPE 3&4 TO BE USED ONLY WITH LINTELS 140mm OR 215mm HIGH. THE LATTER ACHIEVING FLUSH KEYSTONE AS ILLUSTRATED.



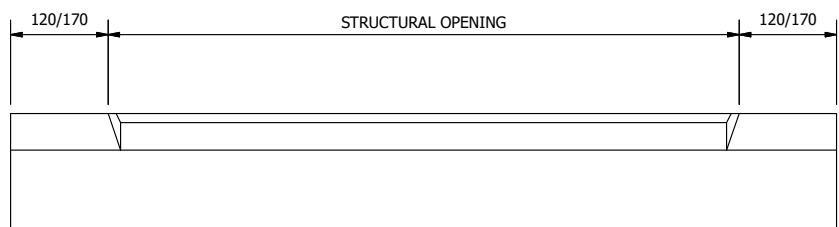
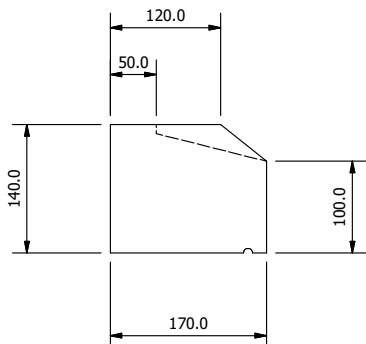
# Cills



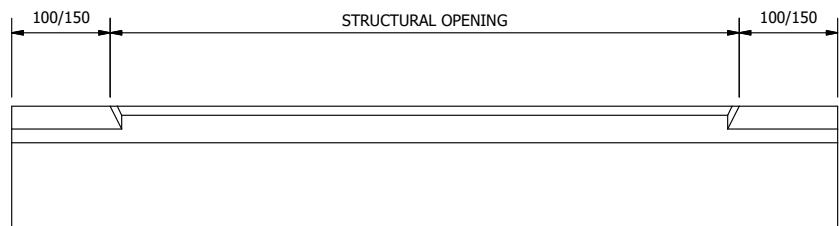
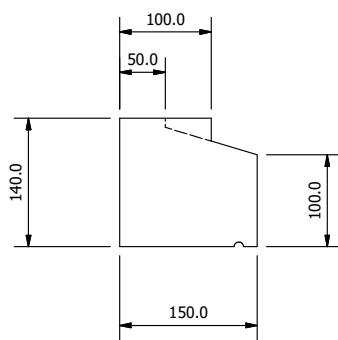
TYPE 1 CILL TYPICAL SECTION



TYPE 2 CILL TYPICAL SECTION



TYPE 3 CILL TYPICAL SECTION  
(FOR RENDERED BUILDINGS)



TYPE 4 CILL TYPICAL SECTION

ALL TYPE 1 CILLS OVER 890mm LONG WILL BE SUPPLIED SECTIONAL, UNLESS PREVIOUSLY AGREED.

STANDARD STRUCTURAL OPENING SIZES INCLUDE 488mm, 630mm, 915mm, 1200mm AND 1770mm.

NON-STANDARD LENGTHS AND SECTIONS MANUFACTURED TO ORDER.

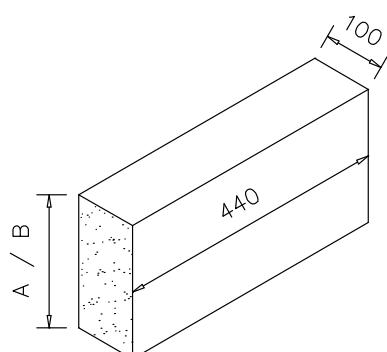
ALL CILLS AVAILABLE-DELETE STOOLS TO FORM SLIP CILLS.

10mm RAINWATER DRIP LOCATED TO FRONT UNDERSIDE OF ALL PROTECTING CILLS.

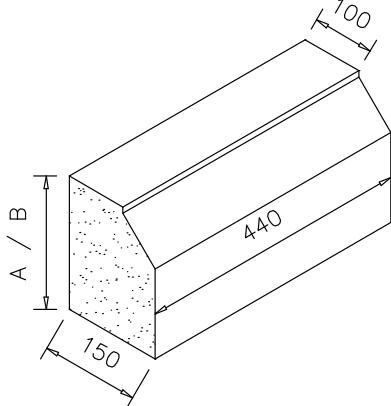
TYPE 3 CILL RECOMMENDED FOR RENDERED BRICKWORK FINISHES.



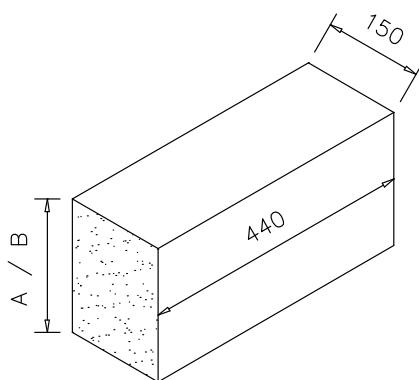
# Ashlar & Quoins



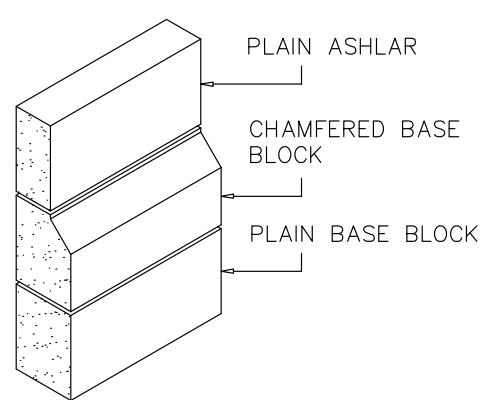
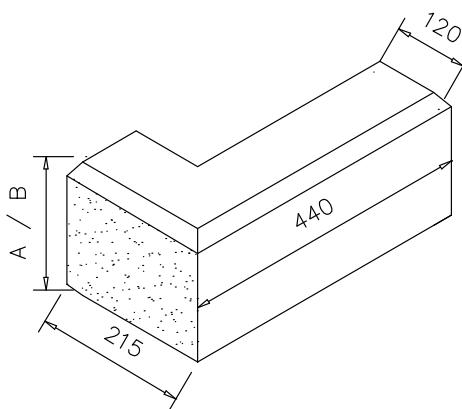
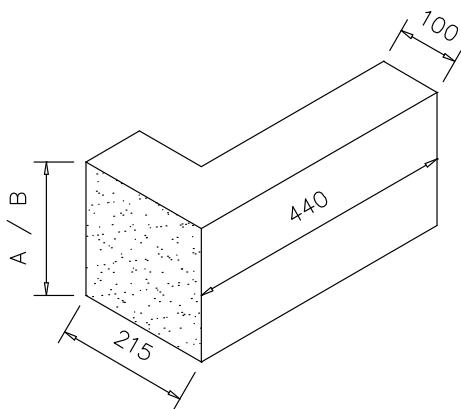
PLAIN ASHLAR



CHAMFERED BASE  
BLOCK



PLAIN BASE BLOCK



Quoins Dim A - 215mm high

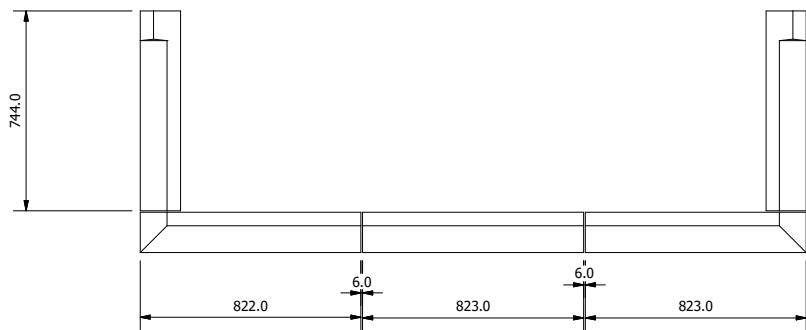
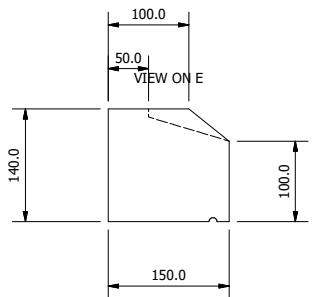
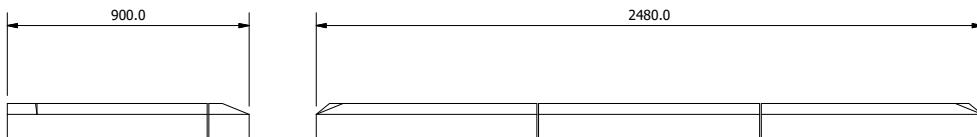
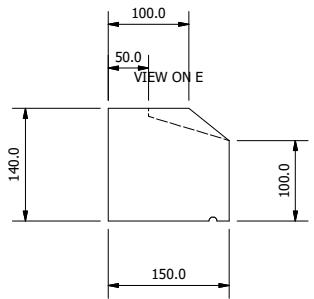
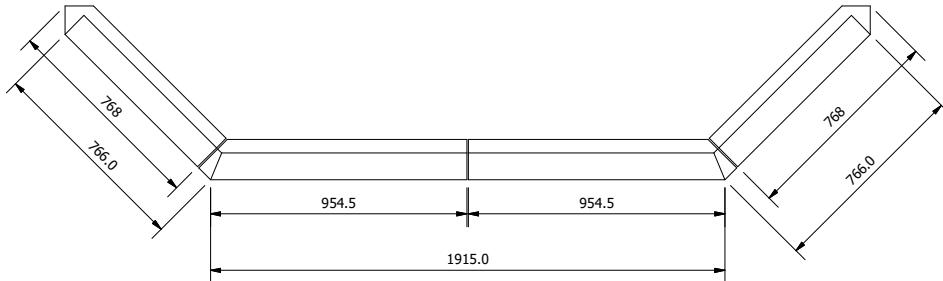
Dim B - 290mm high

- Chamfered quoins manufactured with 20 x 20mm chamfer to 6 edges
- Quoins may be widened to suit thickness of walling
- Chamfered base block manufactured with 50 x 50mm chamfer
- Plain base block to suit chamfered base block
- Non standard dimensions and designs manufactured to order

| Product Name                | Weight (approx.) |
|-----------------------------|------------------|
| Plain Ashlar                | 22kg             |
| Chamfered Base Block        | 31kg             |
| Plain Base Block            | 27kg             |
| Plain 215mm Quoin Block     | 27kg             |
| Plain 290mm Quoin Block     | 37kg             |
| Chamfered 215mm Quoin Block | 33kg             |
| Chamfered 290mm Quoin Block | 45kg             |



# Bays

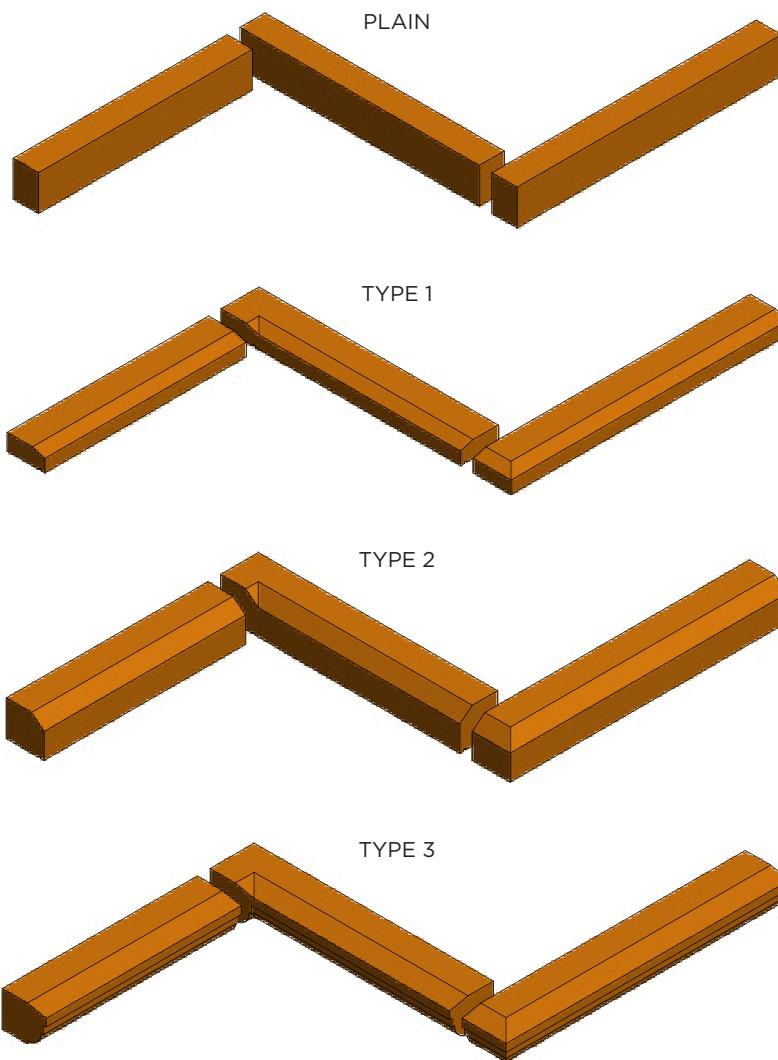
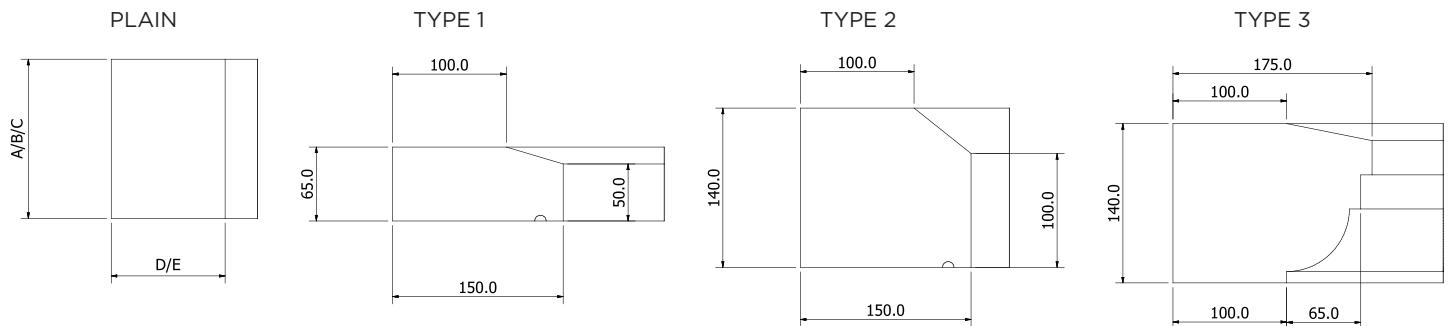


- Bay cill sets available in all cill types.
- Non-standard cill types manufactured to order.
- External brickwork dimensions to be supplied by client prior to manufacture.
- For intermediate stoolings to bay cill sets, please confirm all window opening sizes.
- Bay cill sets supplied sectional.
- Quantity of pieces dependant on brickwork dimensions and compliance with slenderness ratio.



# Stringcourse

KEY:  
 A = 140 mm  
 B = 215 mm  
 C = 290 mm  
 D = 100 mm  
 E = 120 mm



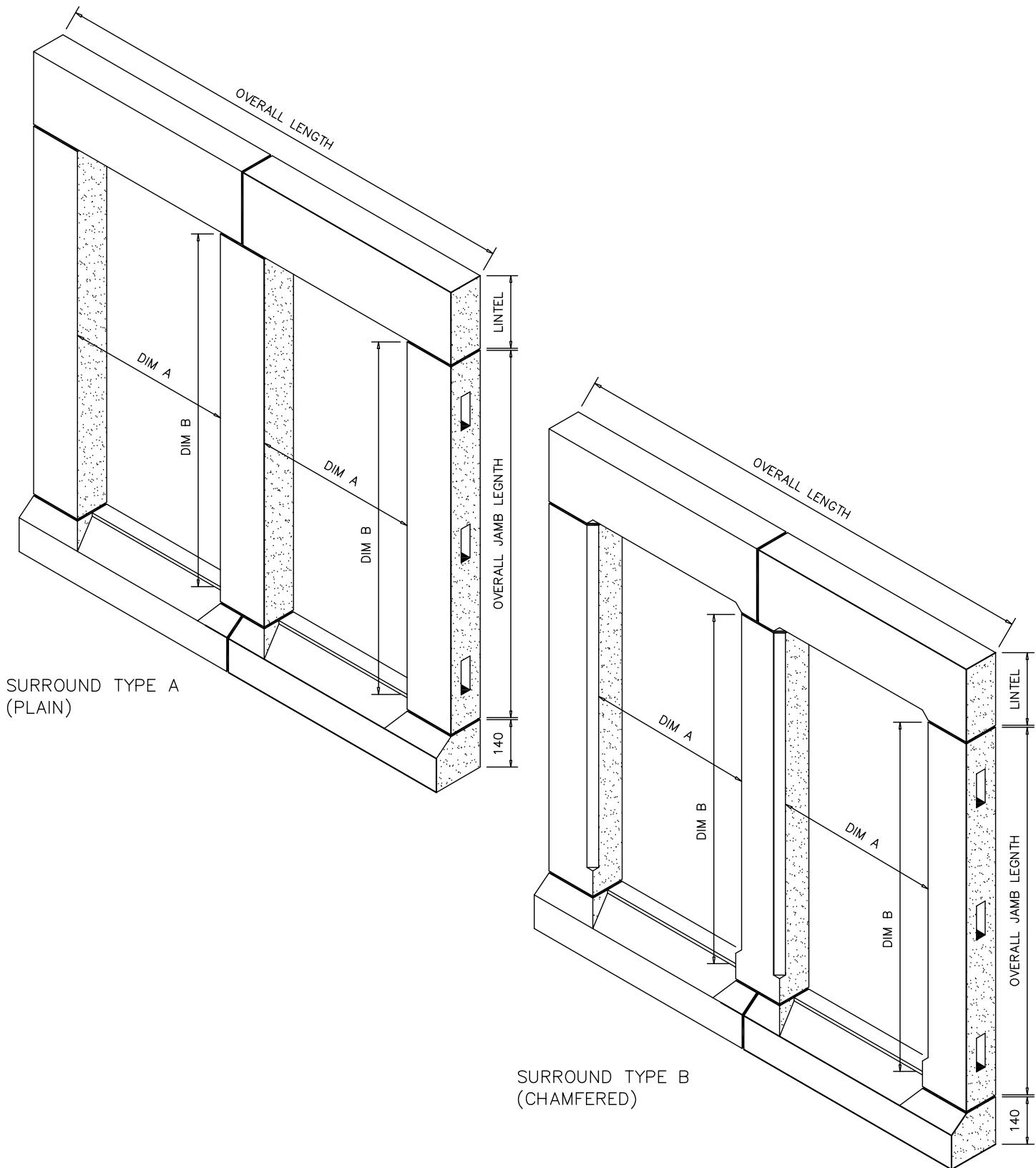
All string course types available with special as follows:

90 Internal and external returns  
 45 Internal and external returns  
 Stop end units

- Bespoke angle returns manufactured to order.
- All string course supplied to a maximum length of 890mm.
- All non-standard sizes and profiles manufactured to order.



# Surrounds

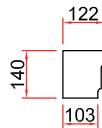
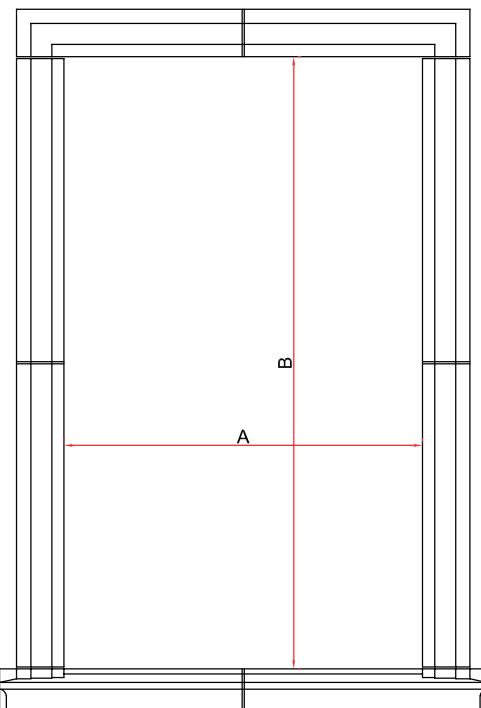


- Surrounds comprise of cills, heads and jambs as per requirements.

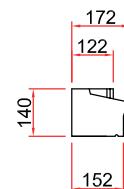
- **Jambs manufactured complete with abbey slots to secure back to adjoining brickwork with standard fishtail ties.**



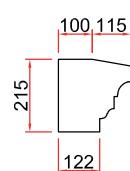
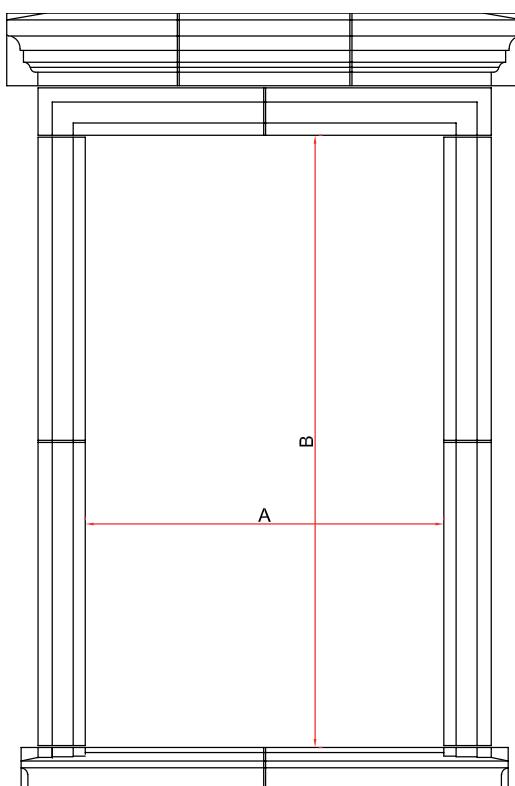
# Profile Surrounds



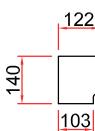
**Head and Jamb section**



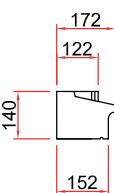
**Cill section**



**Head cornice section**



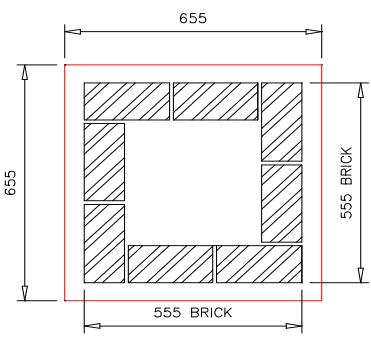
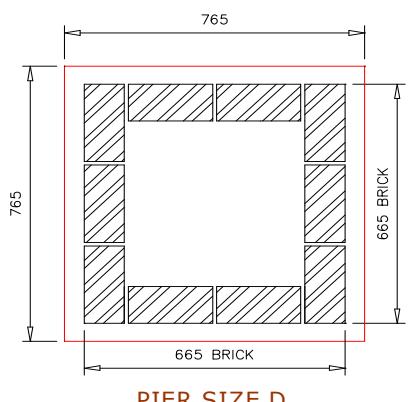
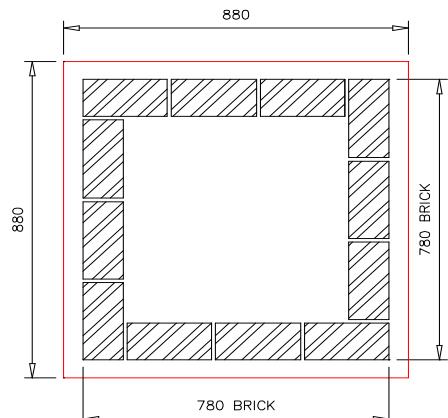
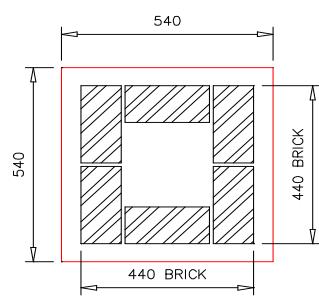
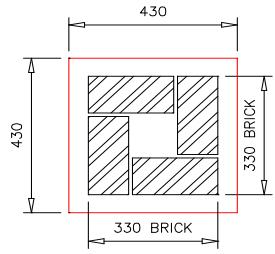
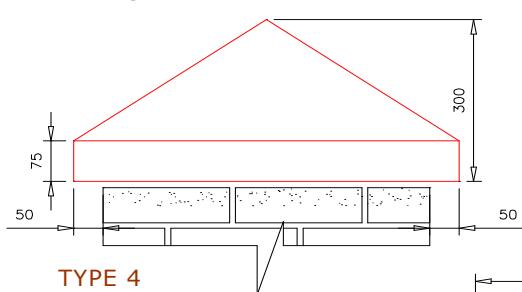
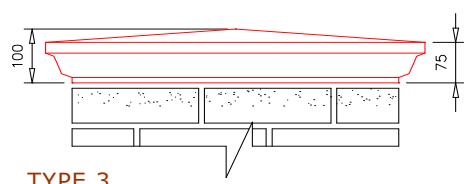
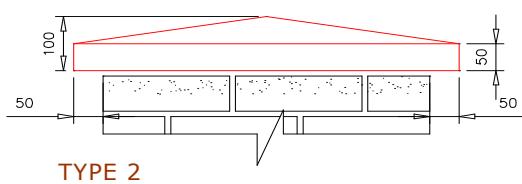
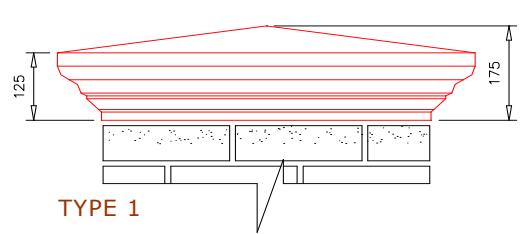
**Head and Jamb section**



**Cill section**



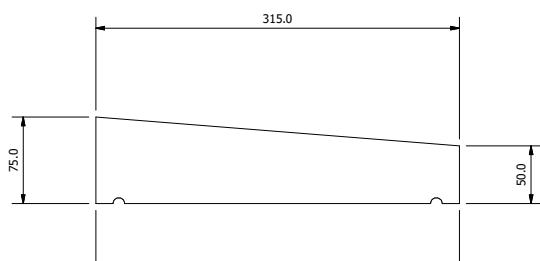
# Pier Cap



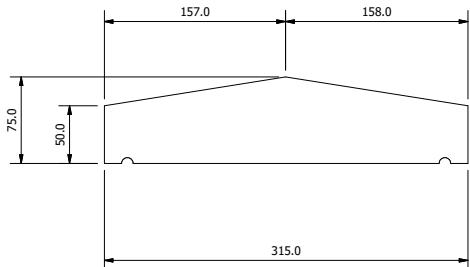
- 300Ø sphere may be applied to pier cap size C and above.
- Alternate styles and junctions manufactured to order.



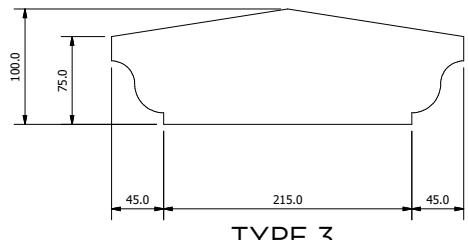
# Copings



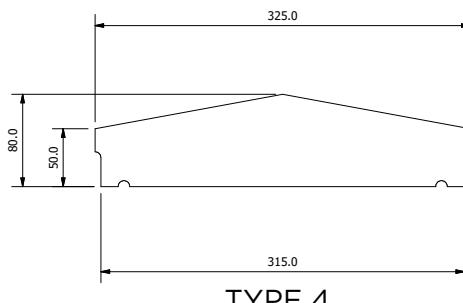
TYPE 1



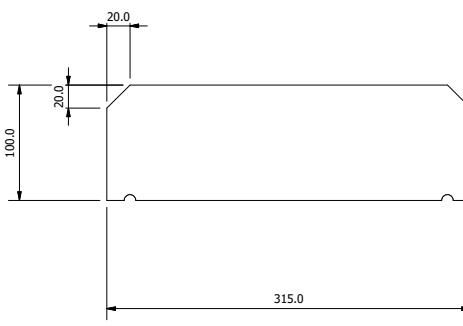
TYPE 2



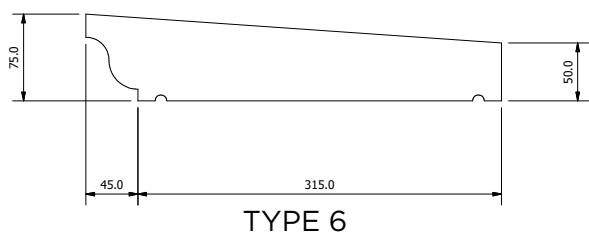
TYPE 3



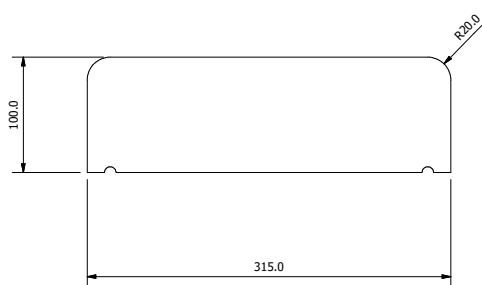
TYPE 4



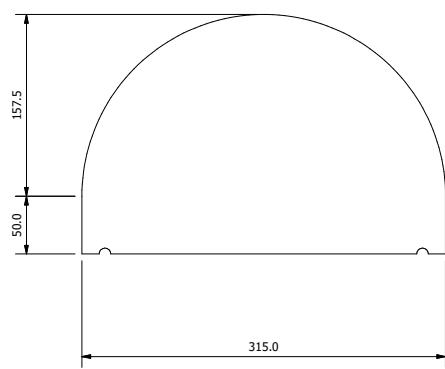
TYPE 5



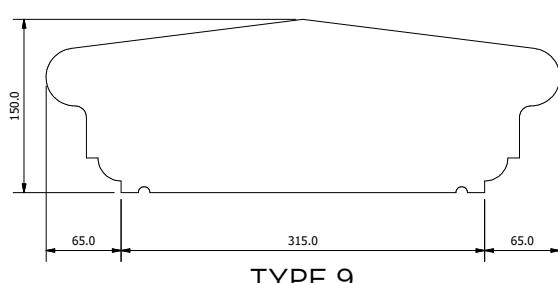
TYPE 6



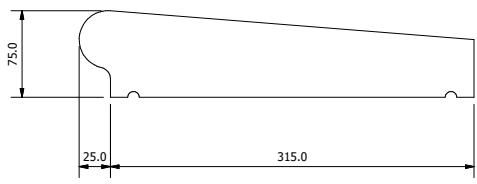
TYPE 7



TYPE 8



TYPE 9



TYPE 10

- Units shown are to suit a 215mm wide wall.
- Other styles and sizes manufactured to order.











# 2023 COLOUR RANGE



1. Portland



2. Bathstone II



3. Millstone II



4. Cotswold II



5. Sandstone II



6. Yorkstone II



7. Cheshire Red II



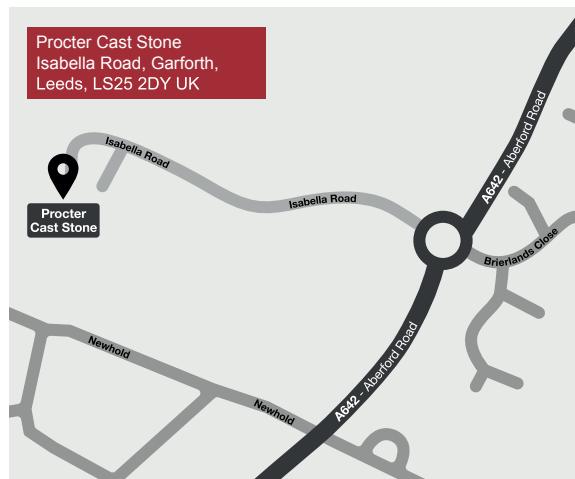
8. Granite Grey II

This colour chart is to be used as a guide only. Samples are available upon request.

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