



Drawing & Technical Info

Procter Cast Stone

Technical Overview

Technical

UKCSA Quality Mark for Cast Stone

Cast stone products manufactured by an UKCSA Full Member to the Association's stringent requirements and specification are already supplied to a standard in excess of the BS 1217 requirements.

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.

Dimensional Tolerance

The dimensional tolerance of the cast stone shall be in accordance with the UKCSA Specification / BS 1217, Clause 8.1.

Flatness of Plane

The flatness of plane of the cast stone shall be in accordance with the UKCSA Specification / BS 1217, Clause 8.2.

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/mm². Download UKCSA Guidance Note: Capillary Absorption Test (CAT)

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/mm².



Welcome to Procter Cast Stone

Procter Cast Stone is part of Procter Bros - a family owned business established in 1740. Across our business and in all of our divisions, we put great emphasis on both high quality products and outstanding customer service.

In 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.

What we do - The Procter Cast Stone service

1. Technical consultation

This is where a project usually starts and our technical staff 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 customers' 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.

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 ensure 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.

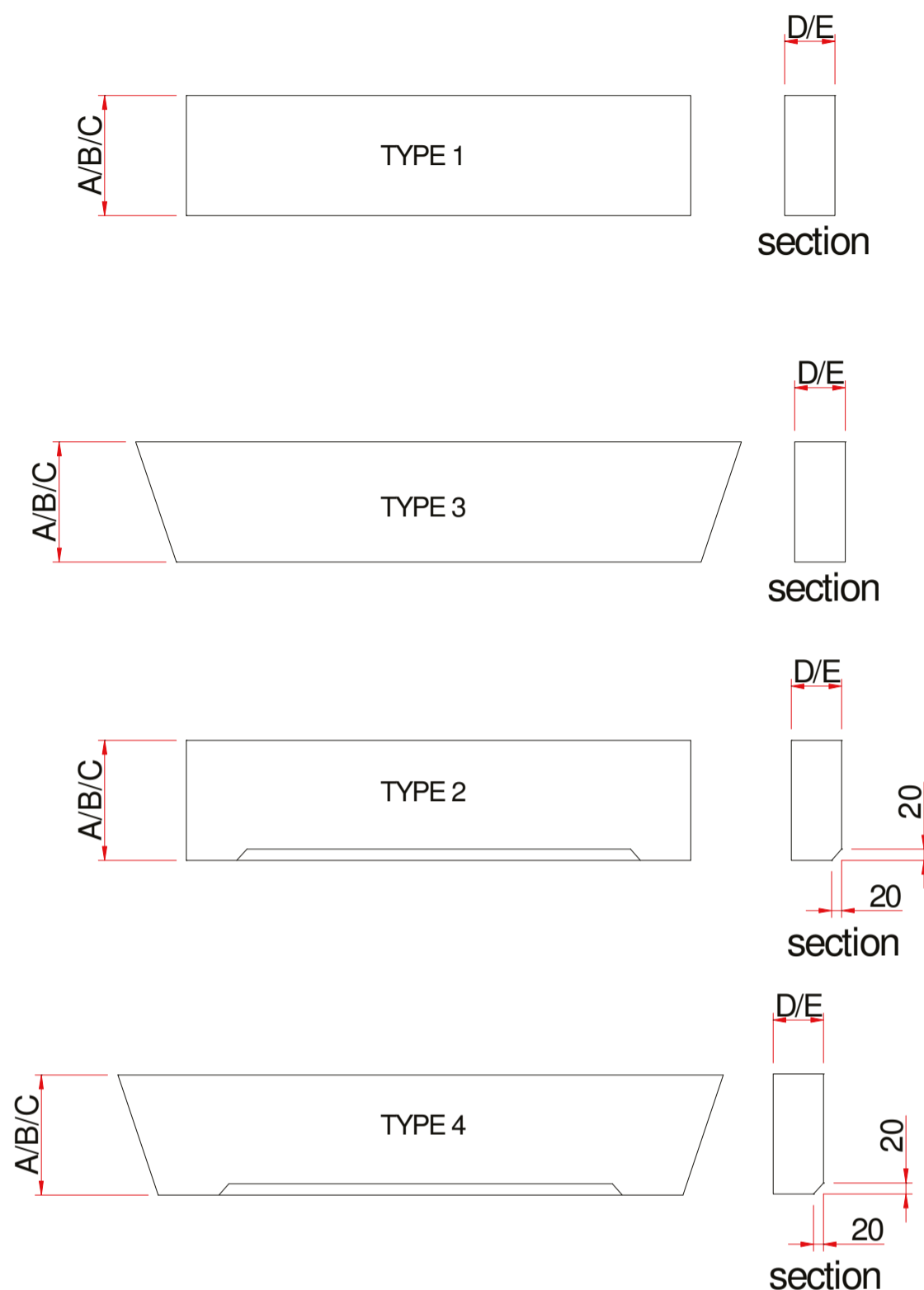
As a full member of UKCSA (the United Kingdom Cast Stone Association), Procter Cast Stone adheres to both BS 1217 and the more stringent requirements in UKCSA's Specification for Cast Stone and Cast Stone Curing Guidance Note.

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.



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Lintel heights

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

Lintel depths

D = 100mm
E = 120mm

140mm & 150mm depths also available.

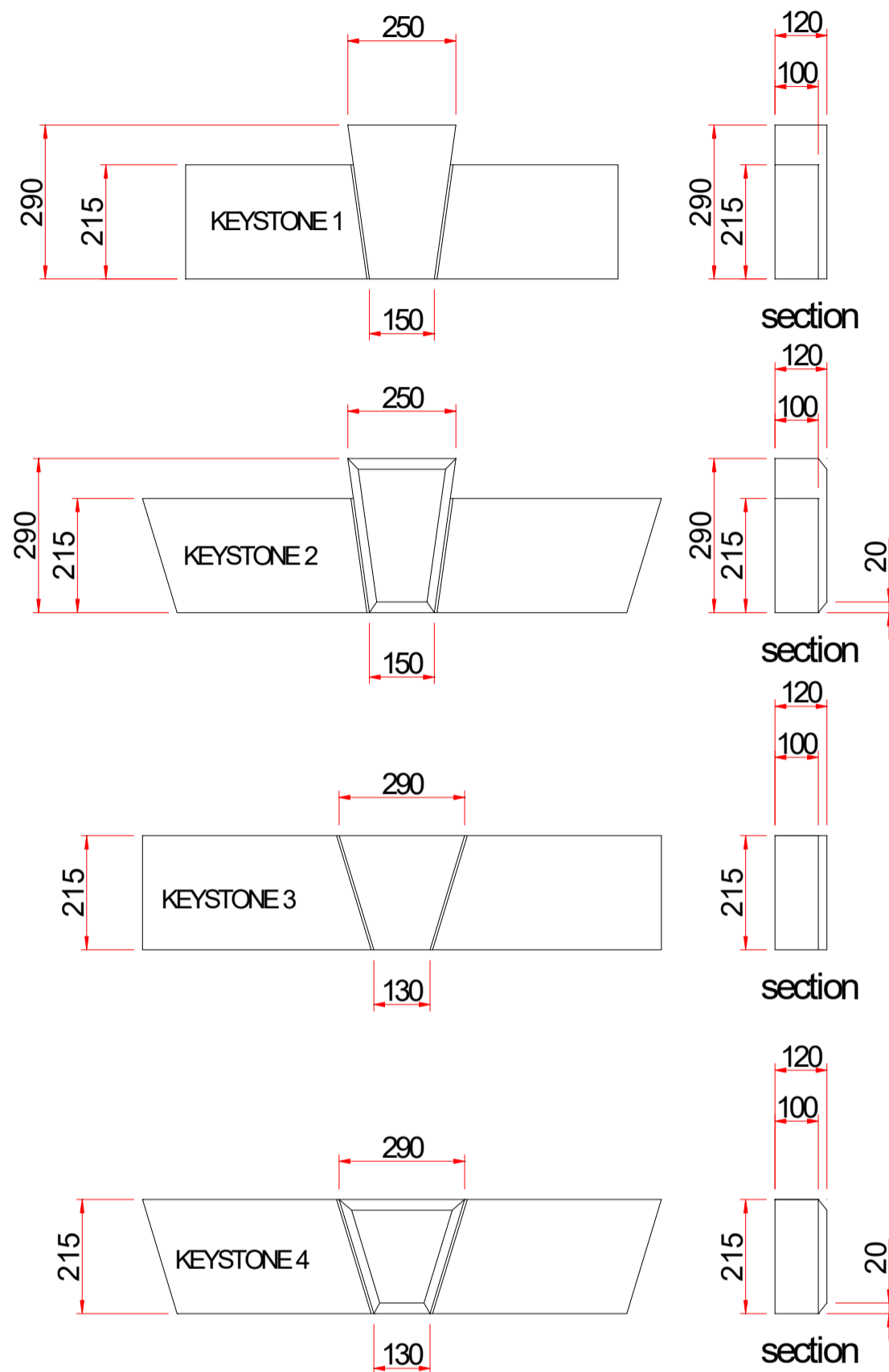
Typical weights

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

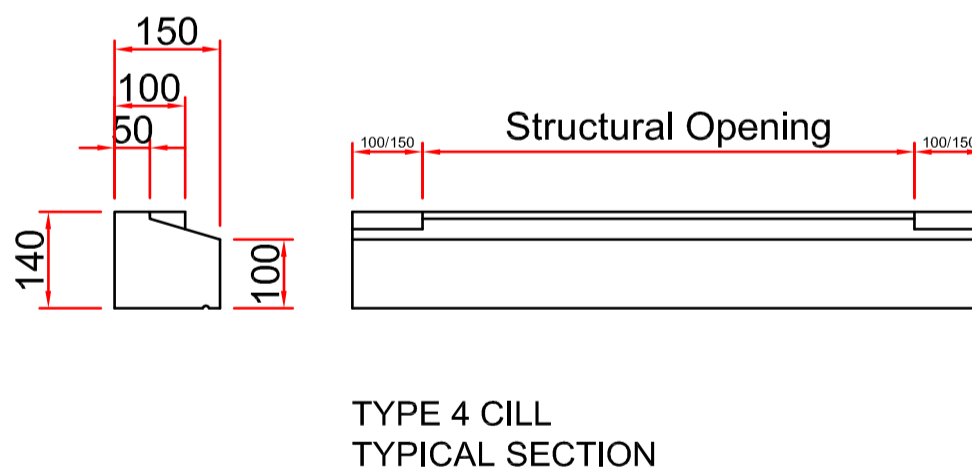
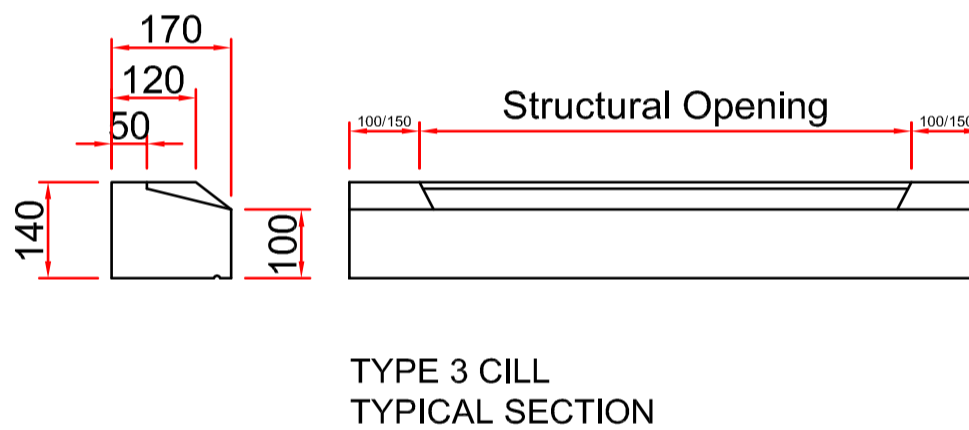
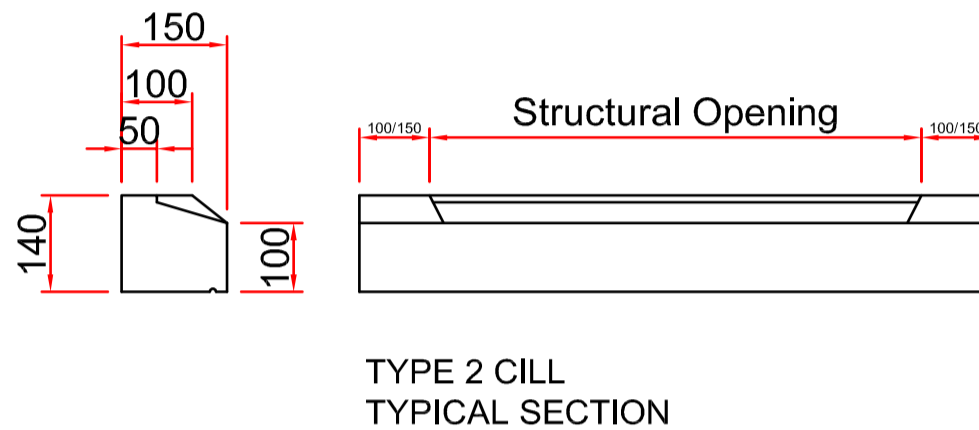
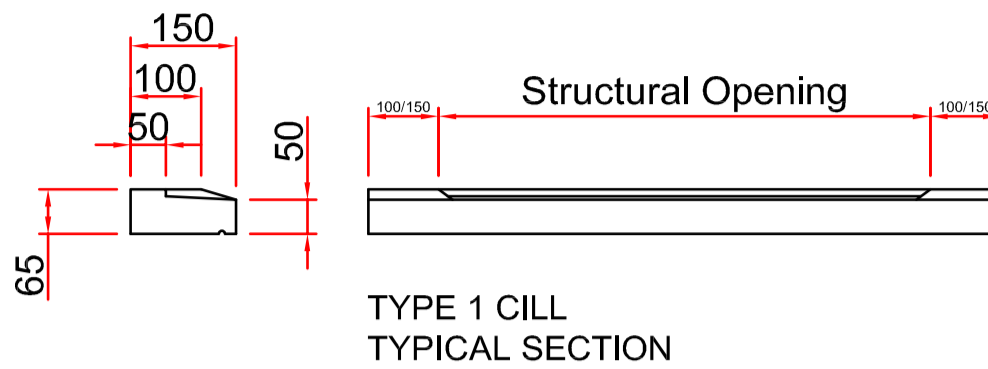
Units can be supplied with cast in lifting sockets if specified.
Units exceeding slenderness ratio will be supplied sectional (please consult sales team).

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.



- 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).
- Keystone type 3 & 4 to be used only with lintels 140mm or 215mm high. (The latter achieving a flush keystone as illustrated).

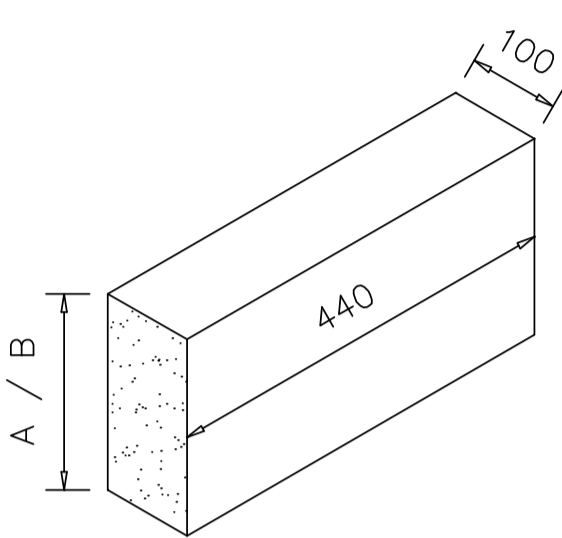
- Keystones shown can be used in conjunction with all standard head types.
- Where a projecting keystone is required (keystone types 1 & 2), the head will be supplied in a minimum of 3 pcs.
- Lintels comprising of Keystone Type 3 and 4 can be supplied in 1pc subject to requirements and restrictions.
- All heads are non-load bearing components and must be used in conjunction with a suitable load relieving lintel.



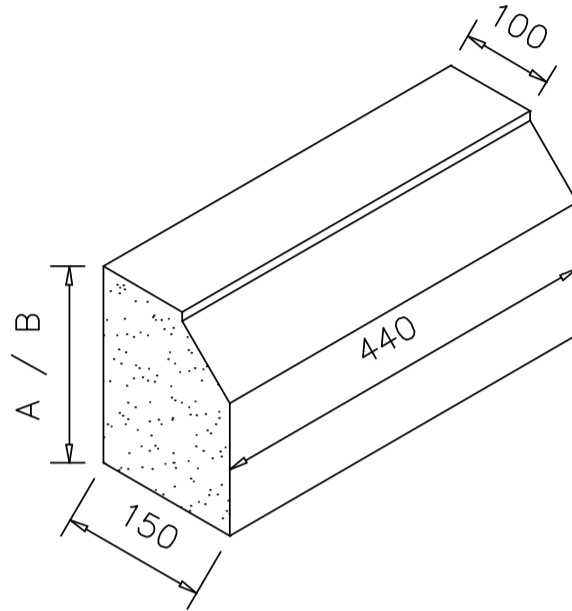
Notes

- All Type 1 cills over 780mm long will be supplied sectional unless previously agreed.
- All Type 2, 3 and 4 cills over 1200mm 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.
- 10mm rainwater drip located to front underside of all projecting cills.
- Type 3 cill recommended for rendered brickwork finishes.

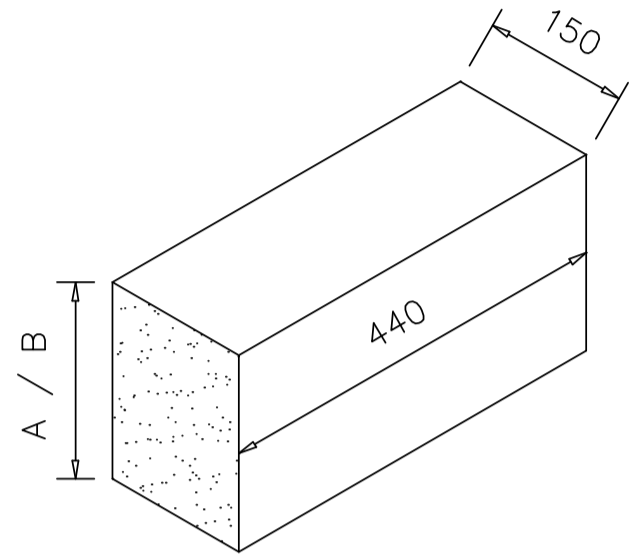
Ashlar & Quoins



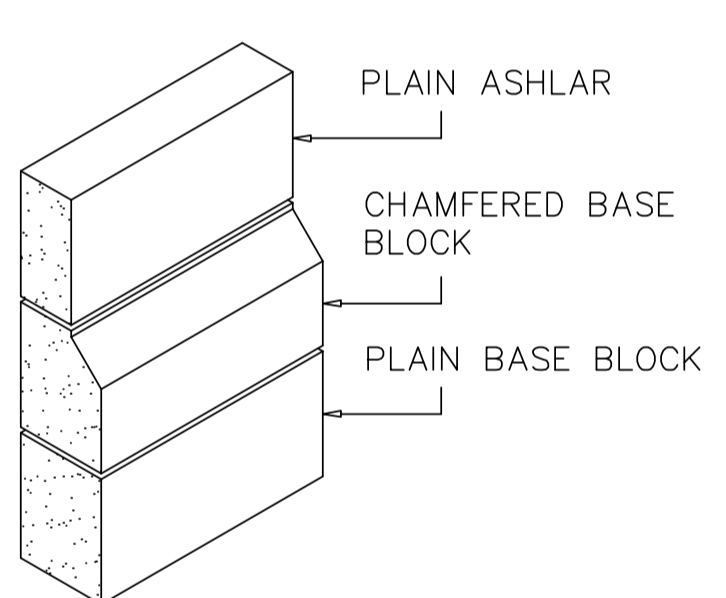
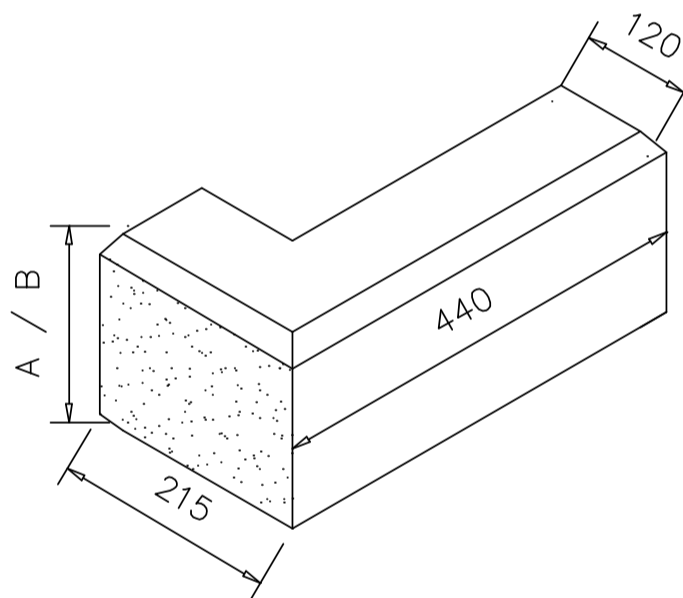
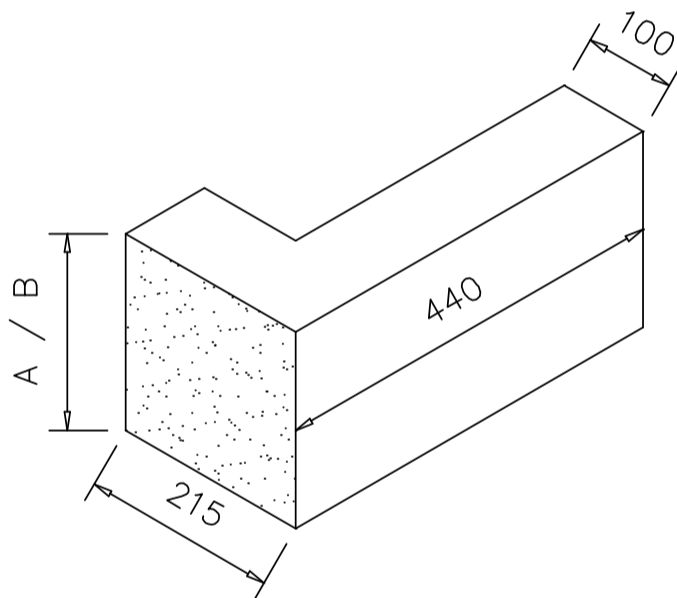
PLAIN ASHLAR



CHAMFERED BASE BLOCK



PLAIN BASE BLOCK

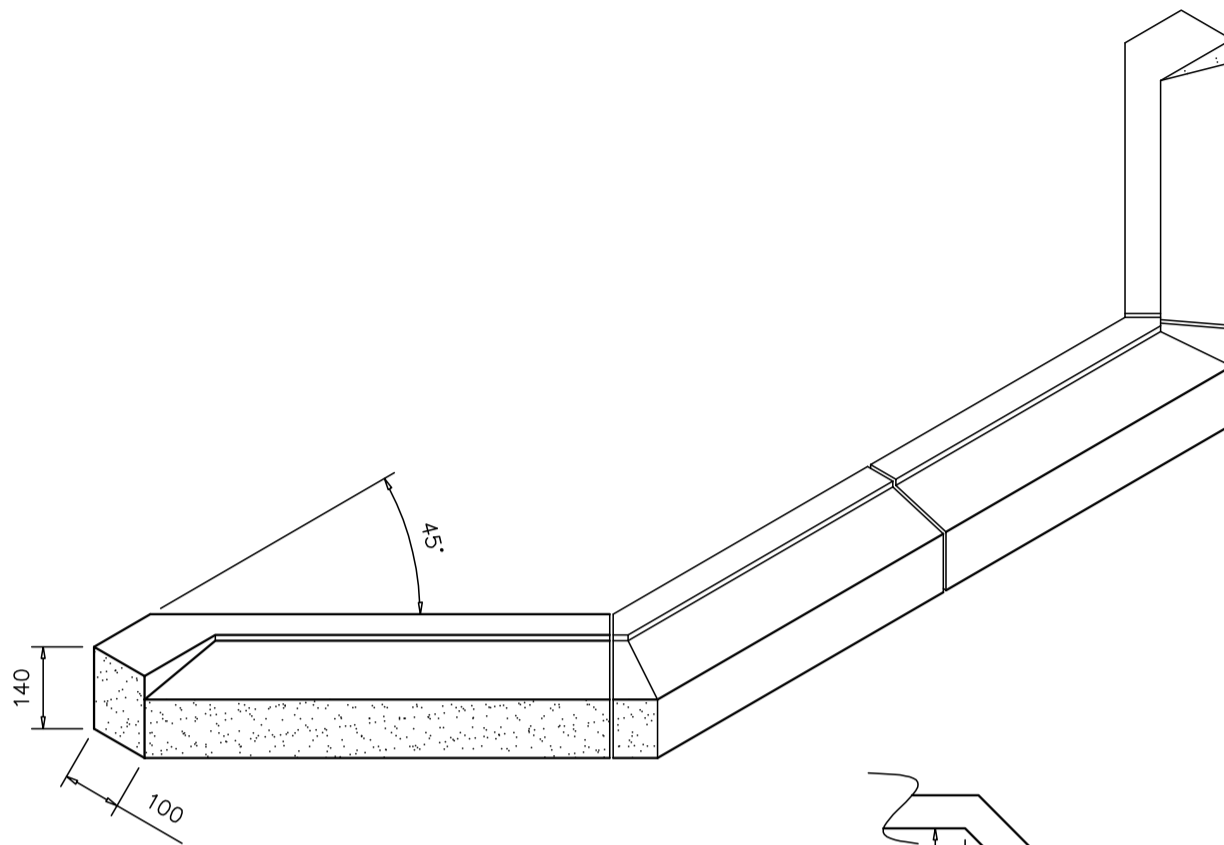


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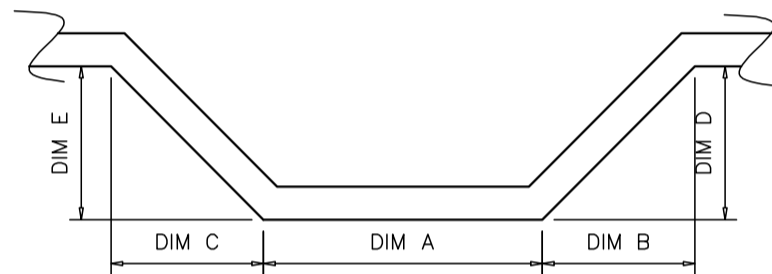
Dim A - 215mm high
Dim B - 290mm high

- 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 (see ashlar configuration)
- Non standard dimensions and designs manufactured to order

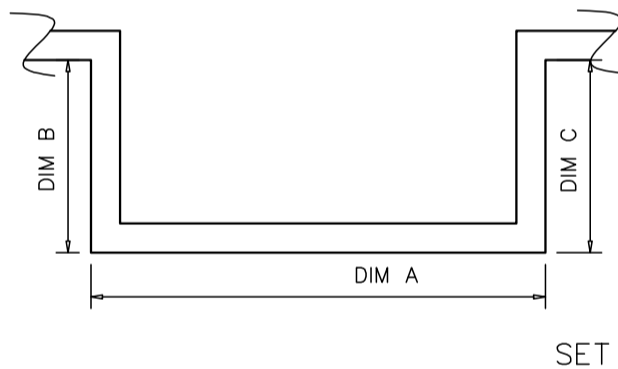
Product name	Weight (approx.)
Plain Ashlar	22kg
Chamfered Base Block	31kg
Plain Base Block	27kg
Plain 215mm Quoin Block	27kg
Plain 290mm Quoin Block	37kg
Chamfered 215mm Quoin Block	33kg
Chamfered 290mm Quoin Block	45kg



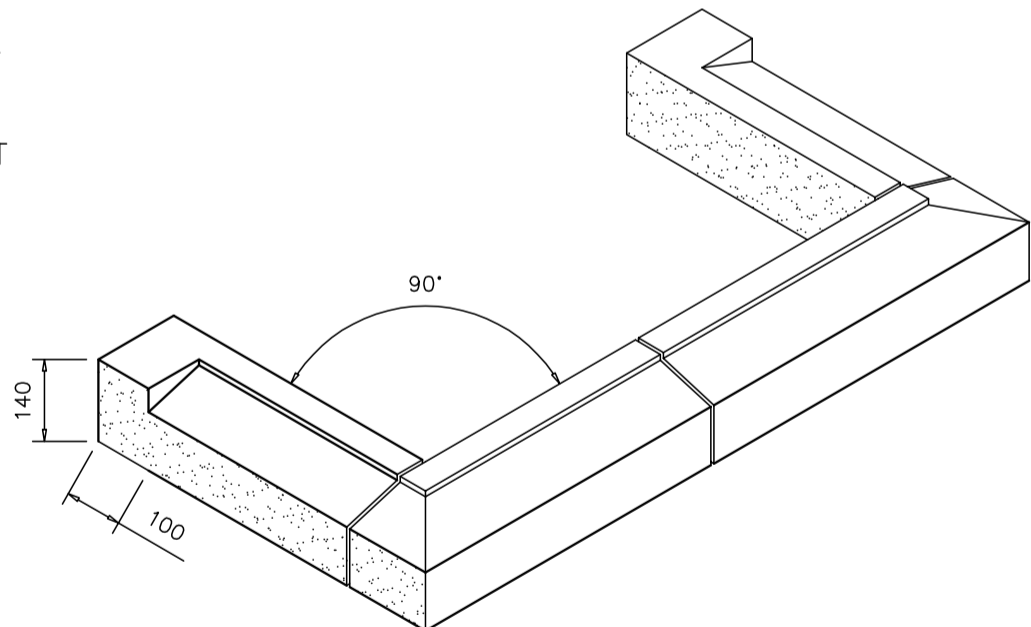
45° BAY CILL SET



BRICKWORK PLAN 45° BAY CILL SET



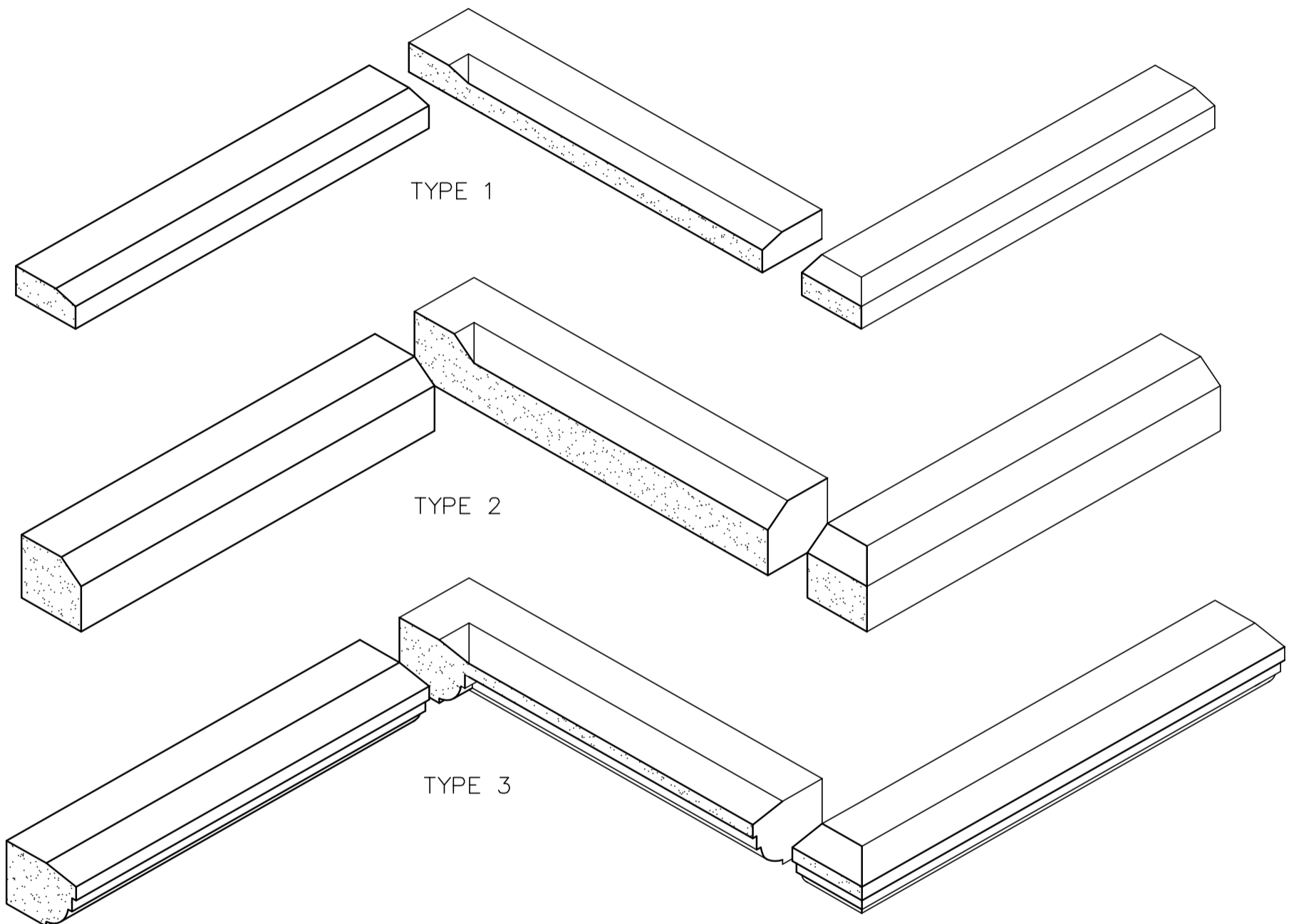
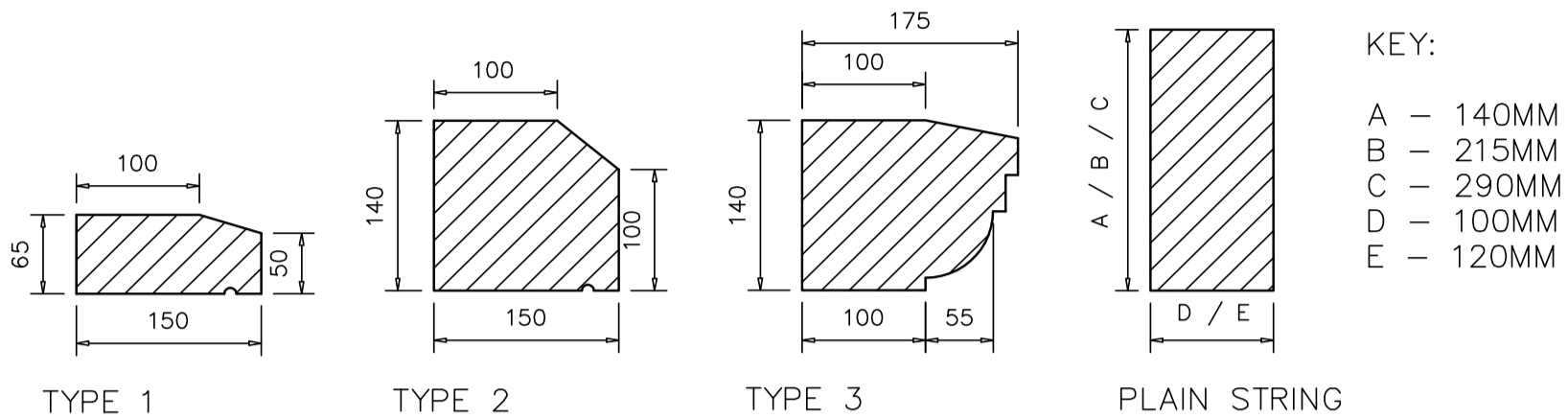
SET



90° BAY CILL SET

Notes

- 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.



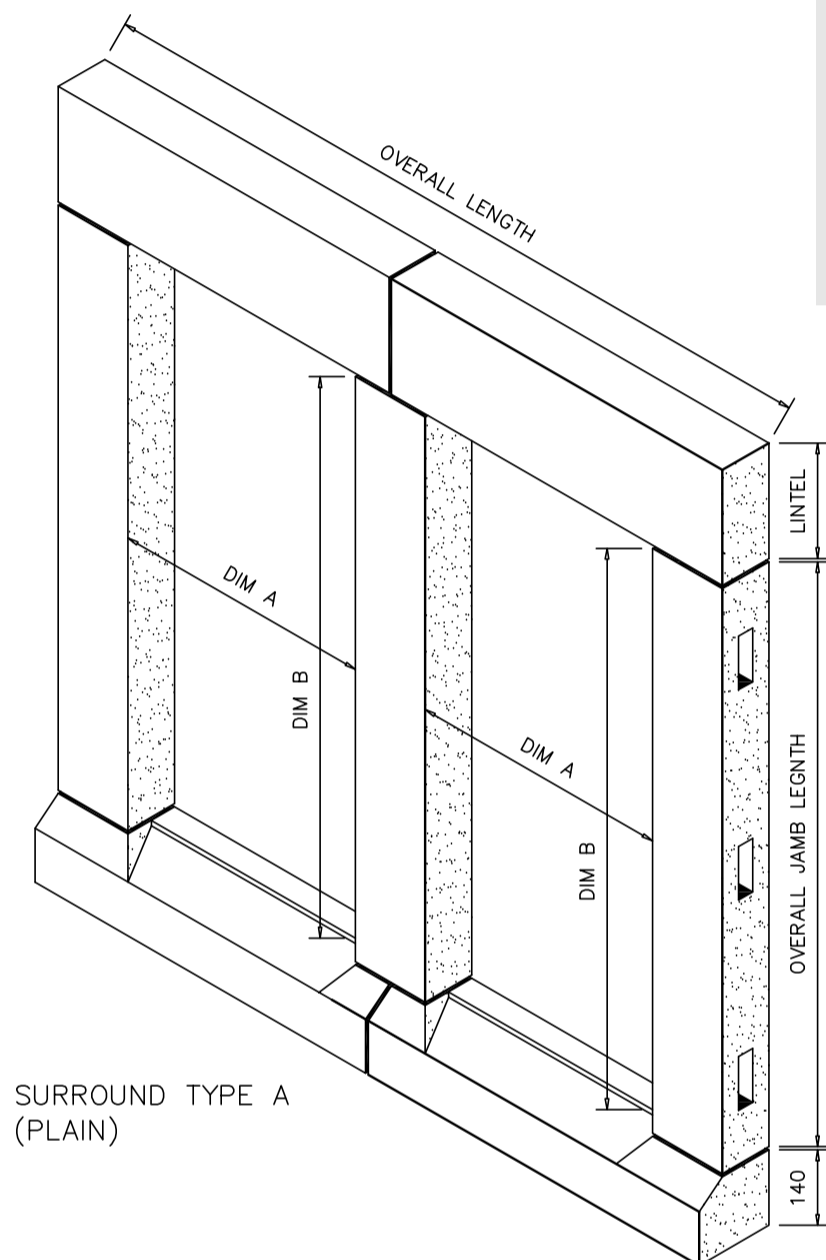
Notes

All string course types available with special as follows:

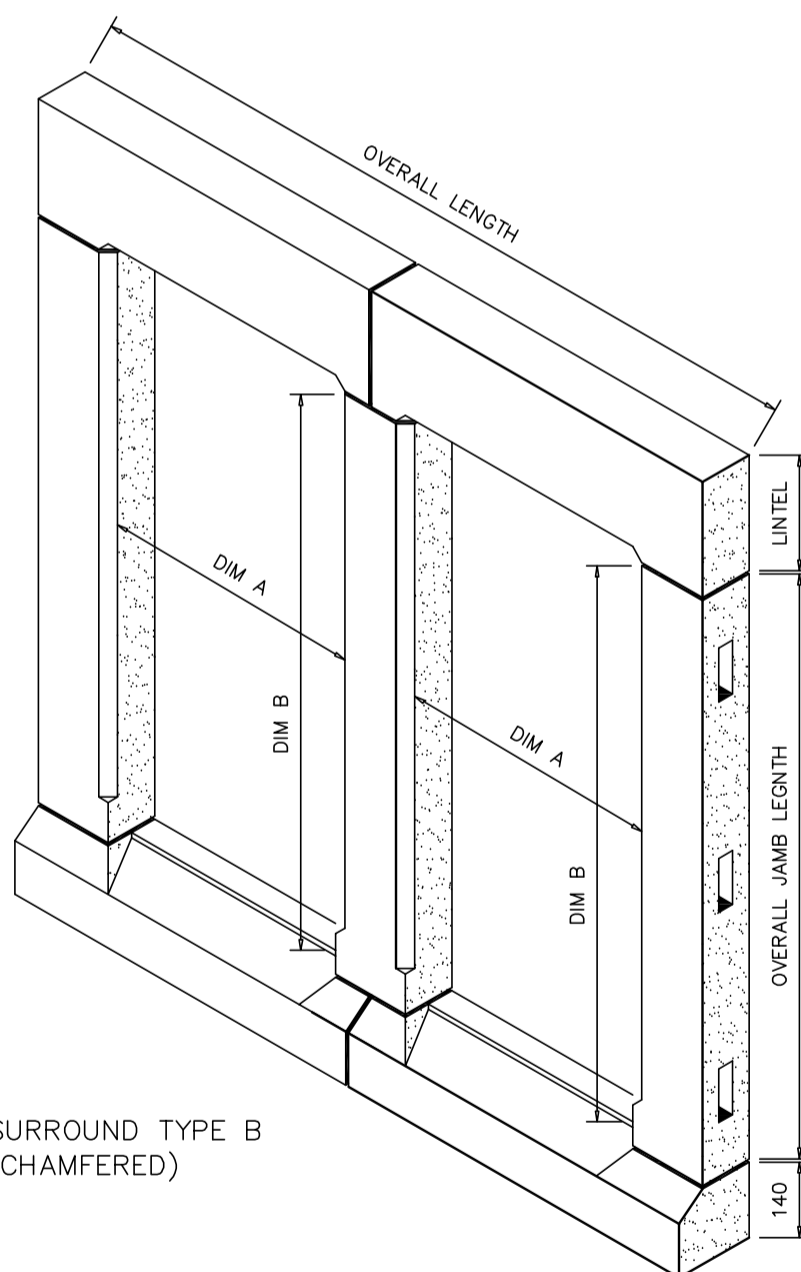
90 Internal and external returns
45 Internal and external returns
Stop end units

- 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 comprise of cills, heads, mullions and jambs as per requirements.
- Jambs manufactured complete with abbey slots to secure back to adjoining brickwork with standard fishtails ties.
- Heads and cills on 2 light (and above) window surround supplied split at mullions.
- Opening sizes available (Dim A): 488mm, 630mm, 1200mm and 1770mm.
- All non-standard components manufactured to order.



SURROUND TYPE A
(PLAIN)



SURROUND TYPE B
(CHAMFERED)

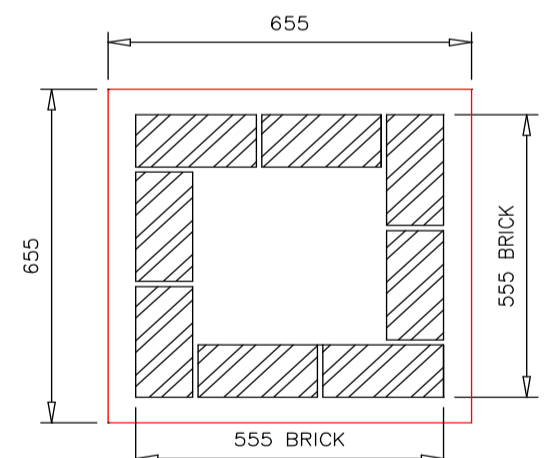
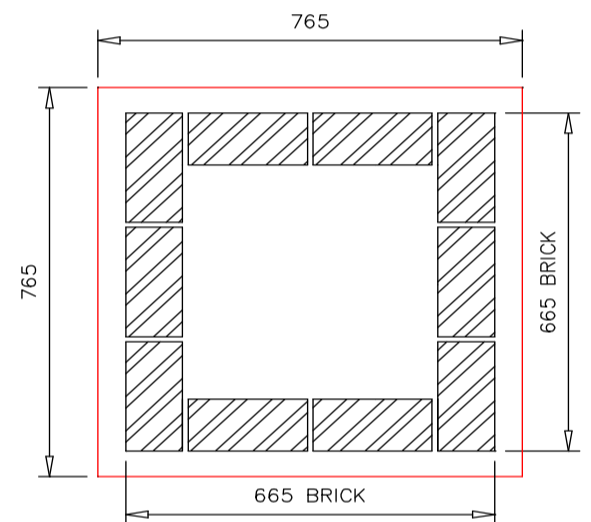
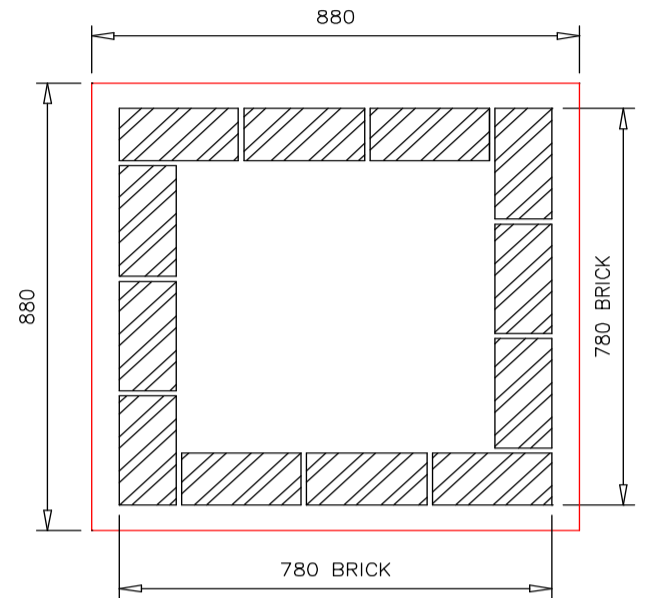
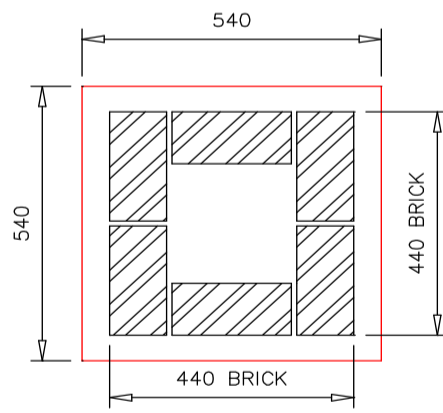
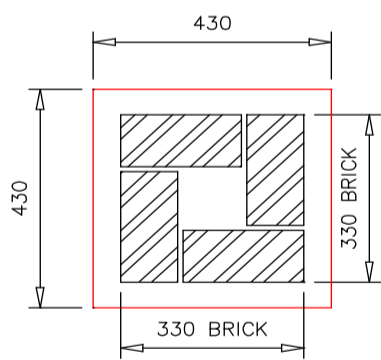
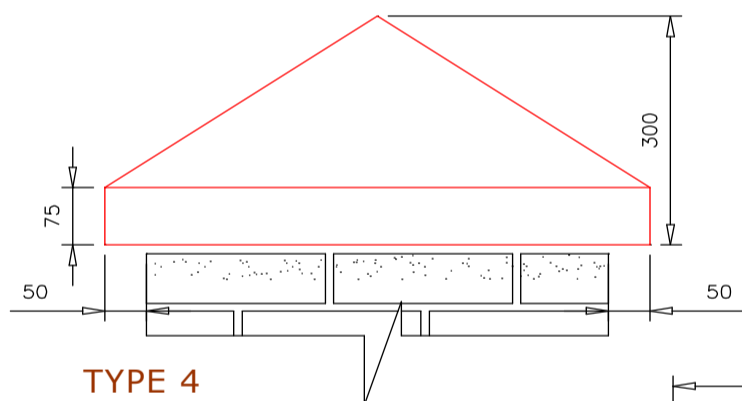
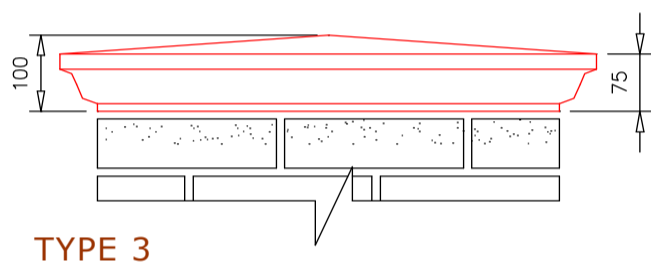
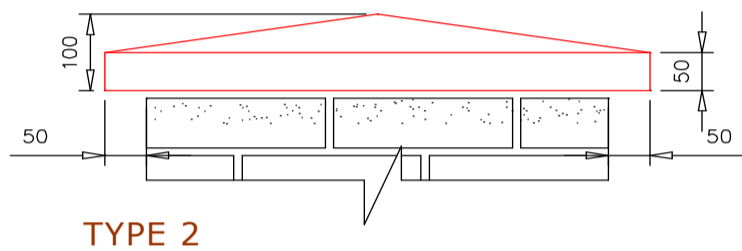
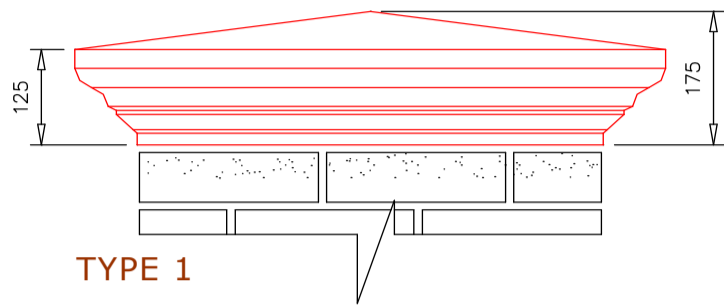
Notes

Typical mullion / jamb sections:

100mm x 150mm - In brickwork
100mm x 100mm - In brickwork
120mm x 120mm - In render
120mm x 170mm - In render

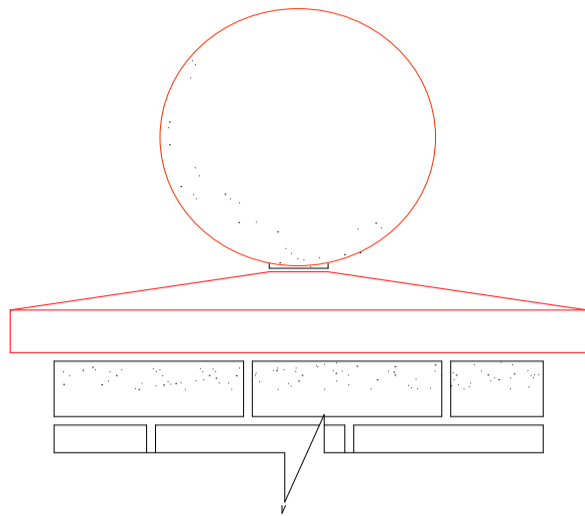
- Mullions may be supplied in section to suit slenderness ratio.
- All non-standard dimensions manufactured to order.
- Type B surround supplied C/W 20 x 20mm chamfer.
- Stainless steel dowels to locate components.

Pier cap

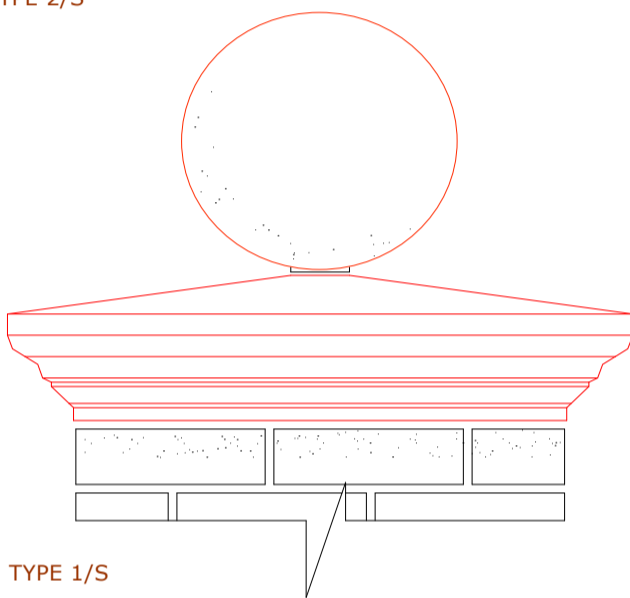


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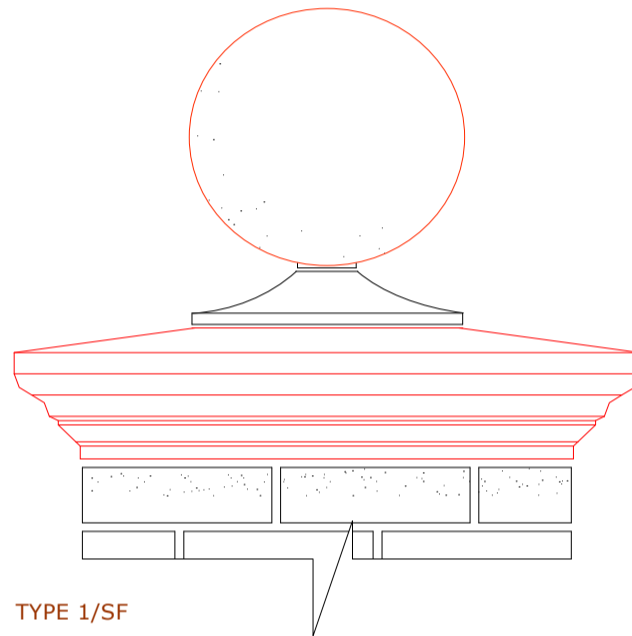
- 300Ø sphere may be applied to pier cap size C and above.
- Alternate styles and junctions manufactured to order.



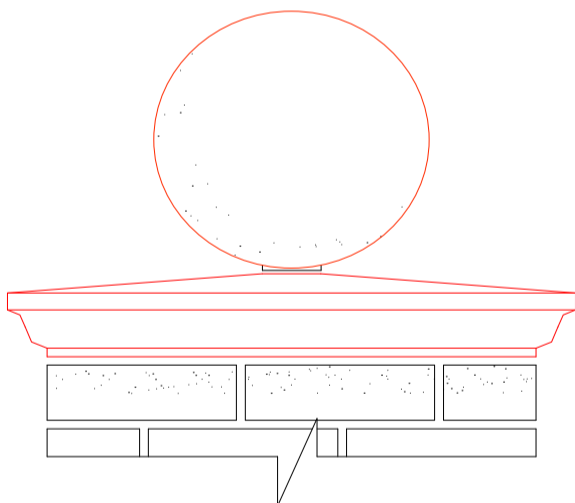
TYPE 2/S



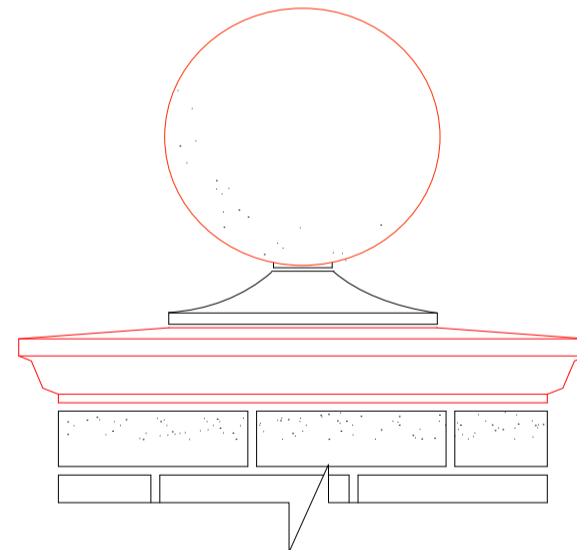
TYPE 1/S



TYPE 1/SF



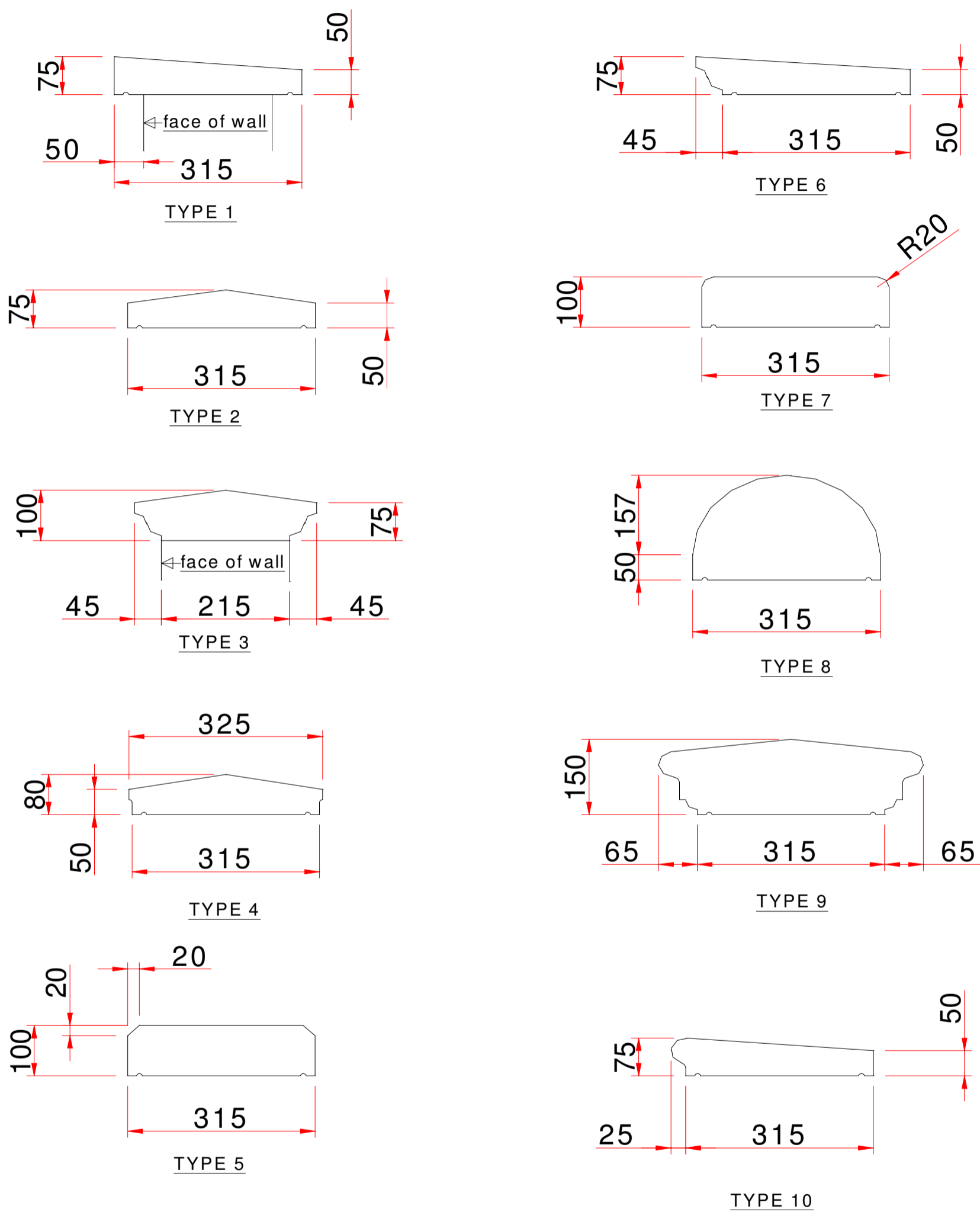
TYPE 3/S



TYPE 3/SF

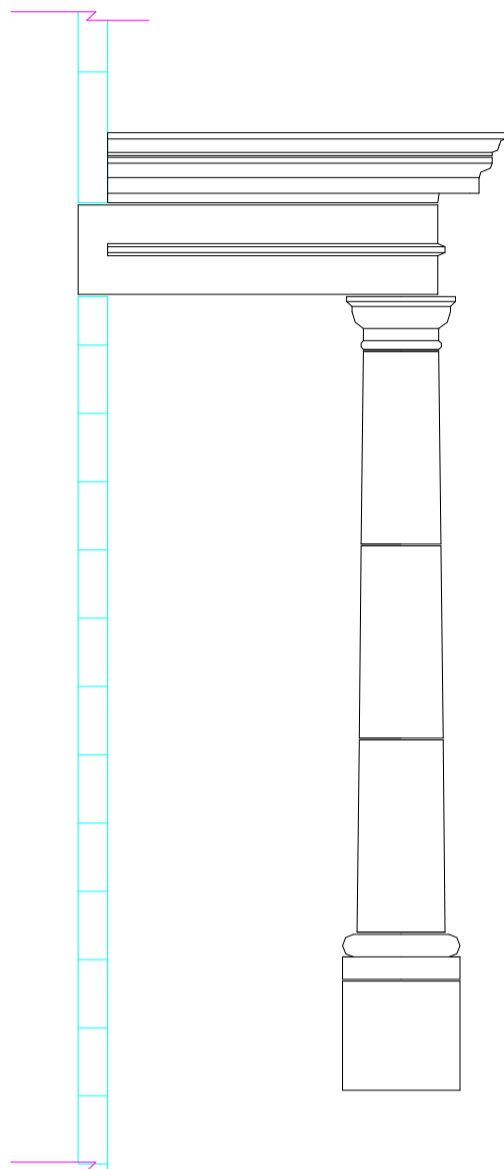
Notes

- Pier caps with spheres are generally in accordance with standard pier caps.
- Spheres supplied are 300mmØ.
- Pier caps suffixed "S" are supplied with 100mm square flats to peak in and in 2pcs.
- Pier caps suffixed "SF" are supplied with a 300mm flat to peak in and in 3pcs c/w finial.
- All components to be located with stainless steel dowels and resin.
- Spheres only applied to pier caps size C and above.

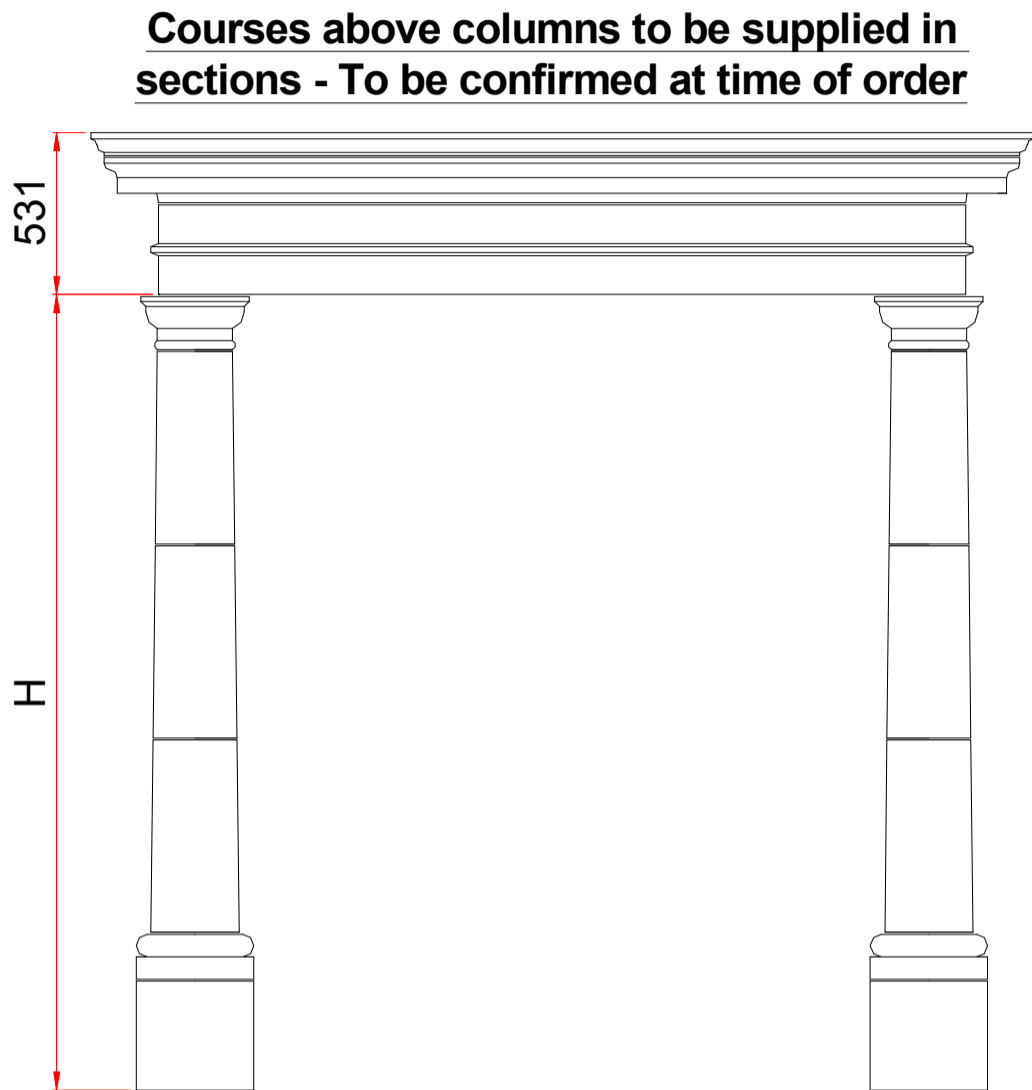


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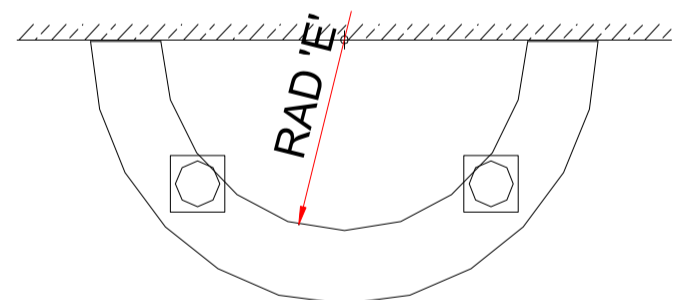
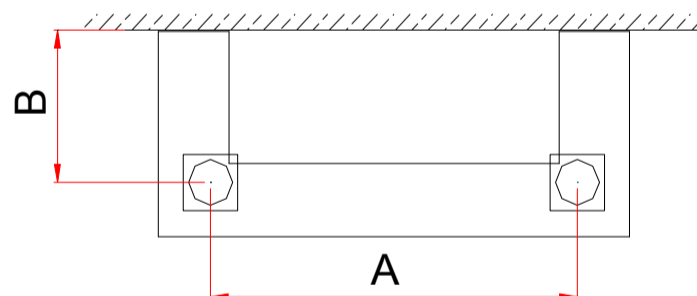
- Units shown are to suit a 215mm wide wall.
- Other styles and sizes manufactured to order.



Side Elevation

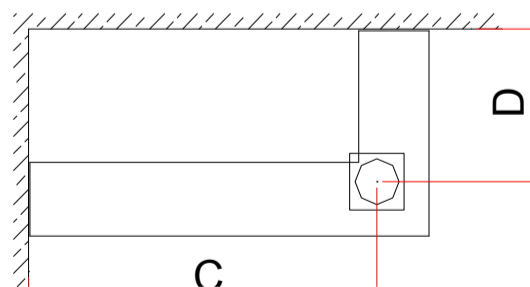


Front Elevation

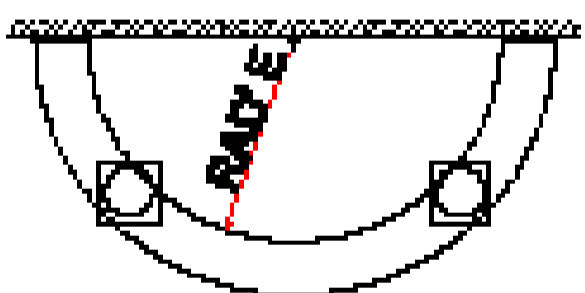
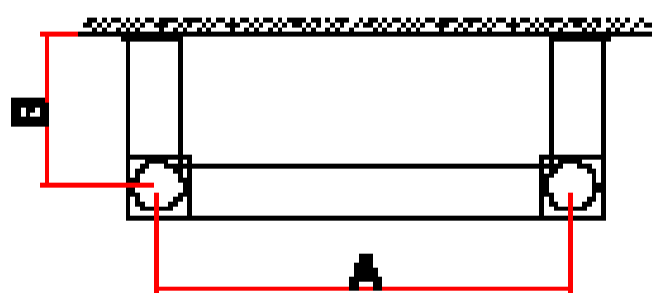
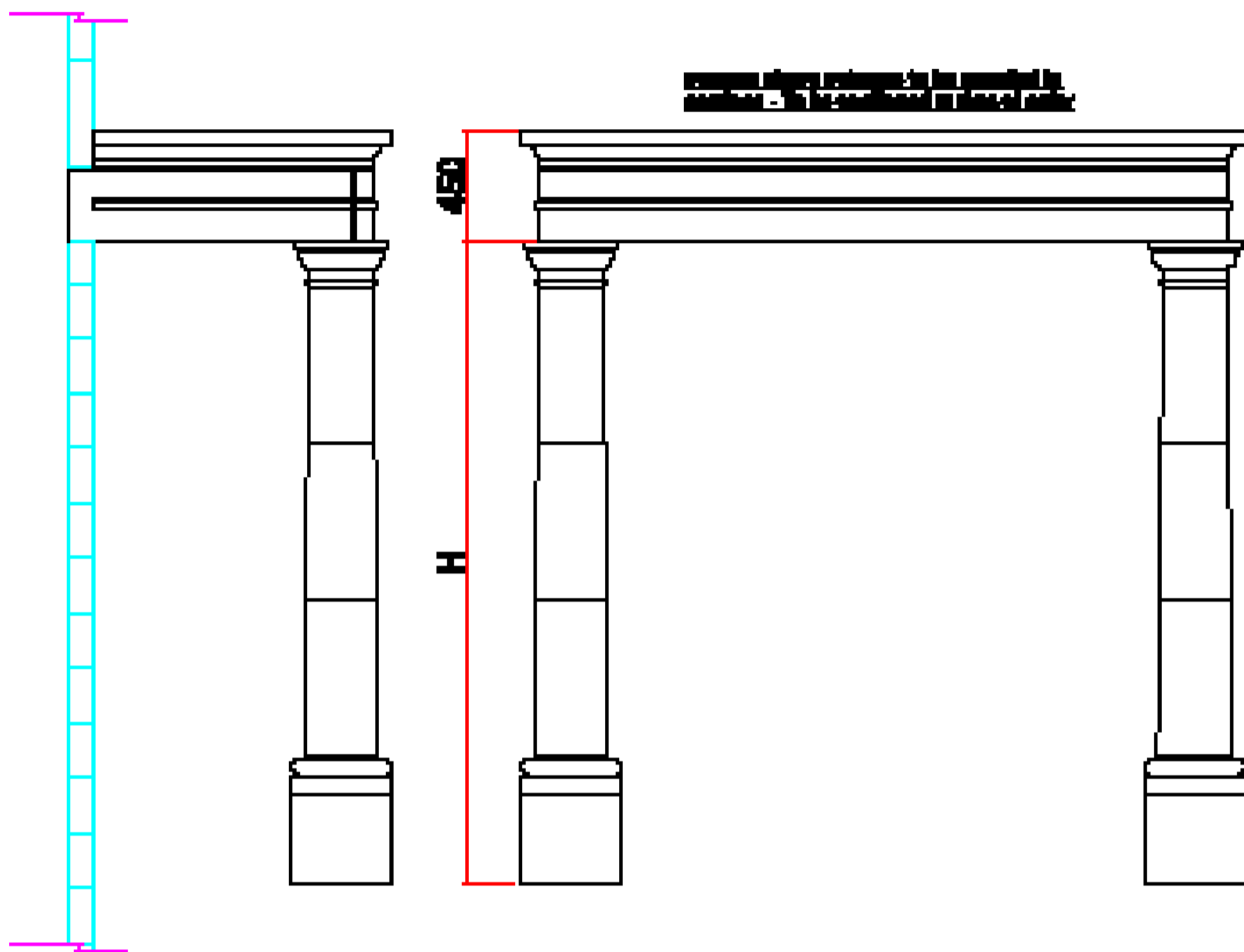


Plan views to show configurations

Size	Style: Ornate		
1	A = 2000	B = 700	H = 2400
2	A = 2500	B = 1000	H = 2400
3	A = 3000	B = 1200	H = 2400
4	C = 2000	D = 700	H = 2400
5	C = 2500	D = 1000	H = 2400
6	C = 3000	D = 1200	H = 2400
7	E = 1000		H = 2400
8	E = 1250		H = 2400
9	E = 1500		H = 2400

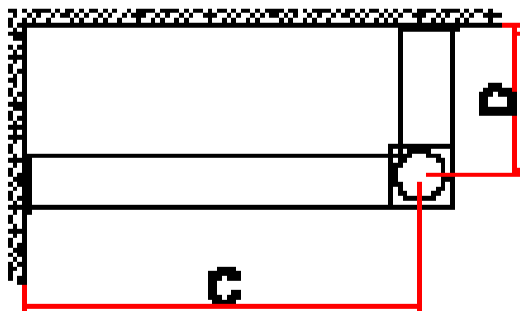


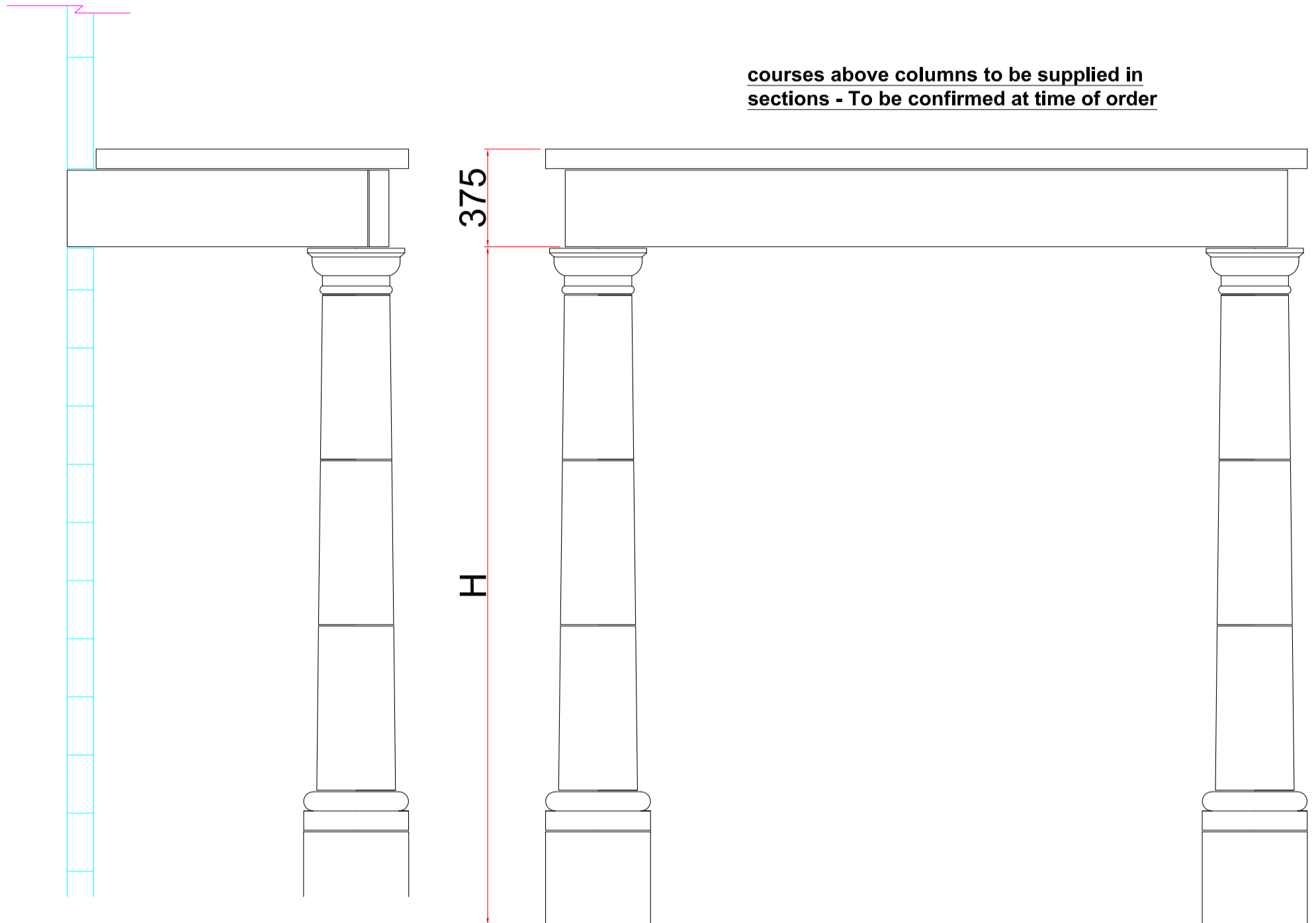
Portico - Elegant



Plan view to show configurations

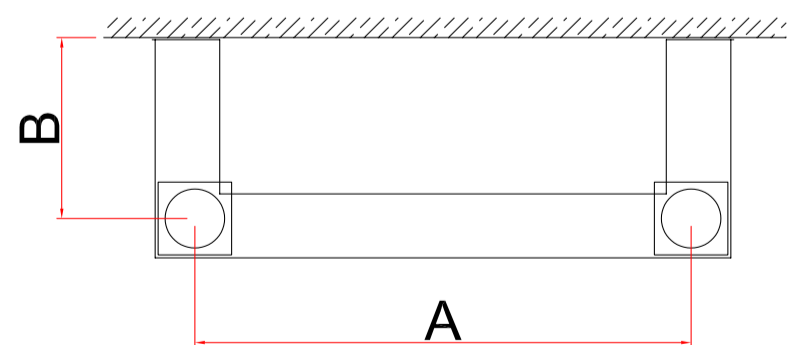
Size	Style: Elegant		
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2	A = 2500	B = 1000	H = 2400
3	A = 3000	B = 1200	H = 2400
4	C = 2000	D = 700	H = 2400
5	C = 2500	D = 1000	H = 2400
6	C = 3000	D = 1200	H = 2400
7	E = 1000		H = 2400
8	E = 1250		H = 2400
9	E = 1500		H = 2400

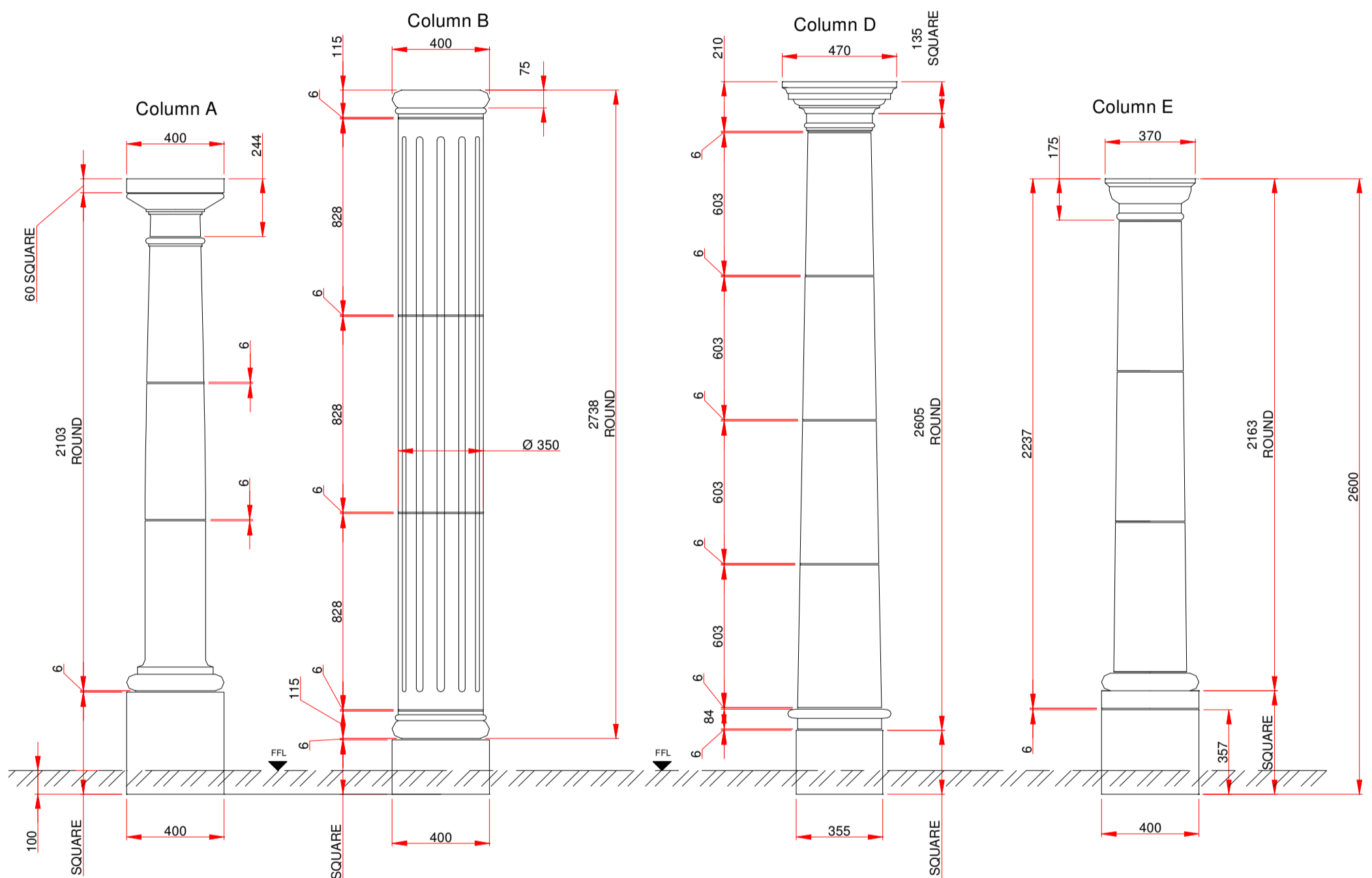




Front Elevation

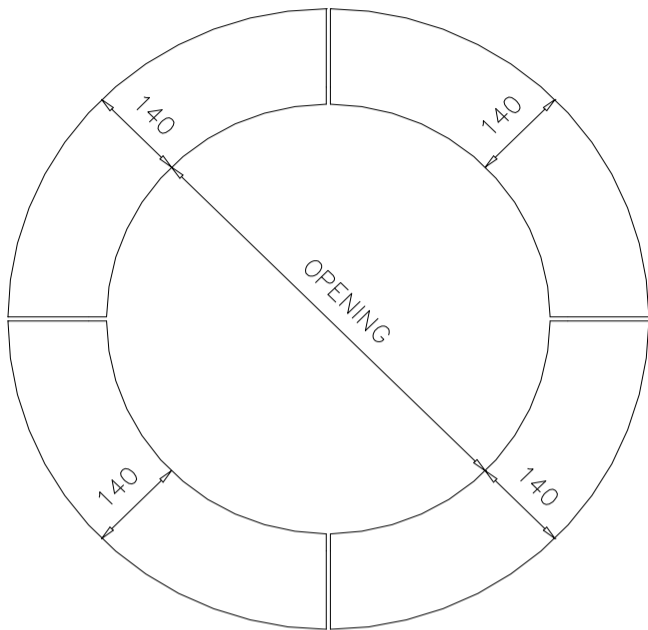
Size	Style: Classic		
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2	A = 2500	B = 1000	H = 2400
3	A = 3000	B = 1200	H = 2400
4	C = 2000	D = 700	H = 2400
5	C = 2500	D = 1000	H = 2400
6	C = 3000	D = 1200	H = 2400
7	E = 1000		H = 2400
8	E = 1250		H = 2400
9	E = 1500		H = 2400



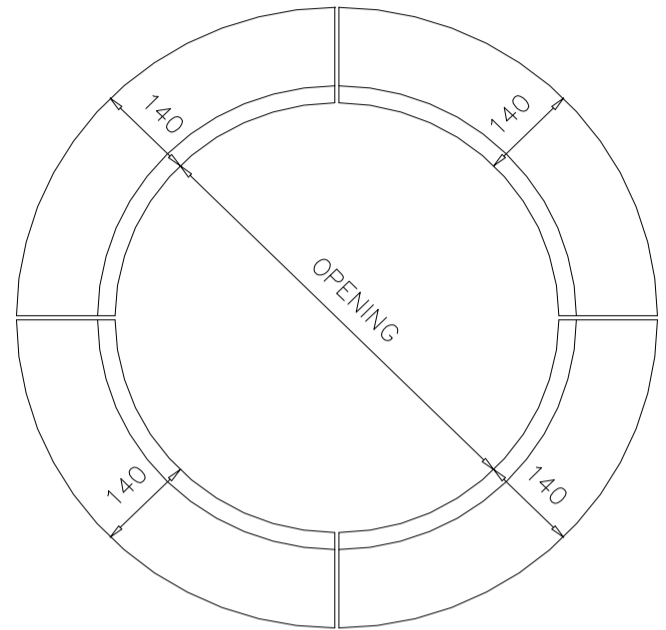


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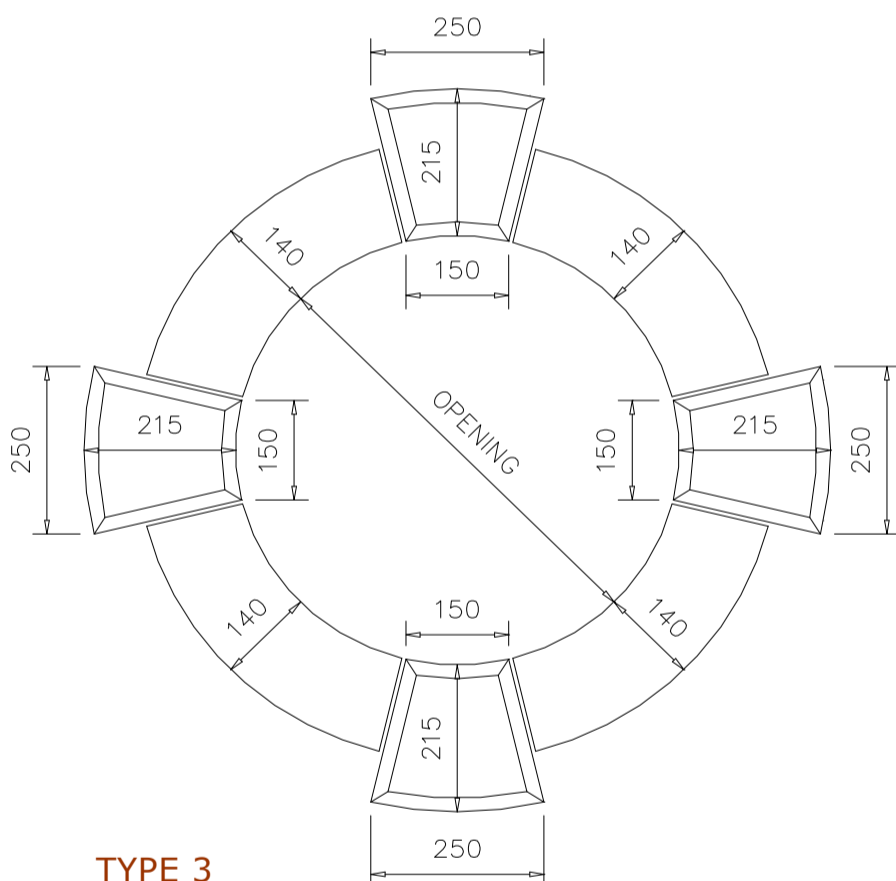
- Height variations are obtained by increasing the base block height.
- Columns supplied solid or in hollow section (some styles are not available with hollow option).
- Hollow section columns are supplied with a 100mmØ internal core and must be lined with a suitable membrane to counter defects caused by differential rates of expansion and contraction post installation.
- A choice of columns is available on standard porticos.



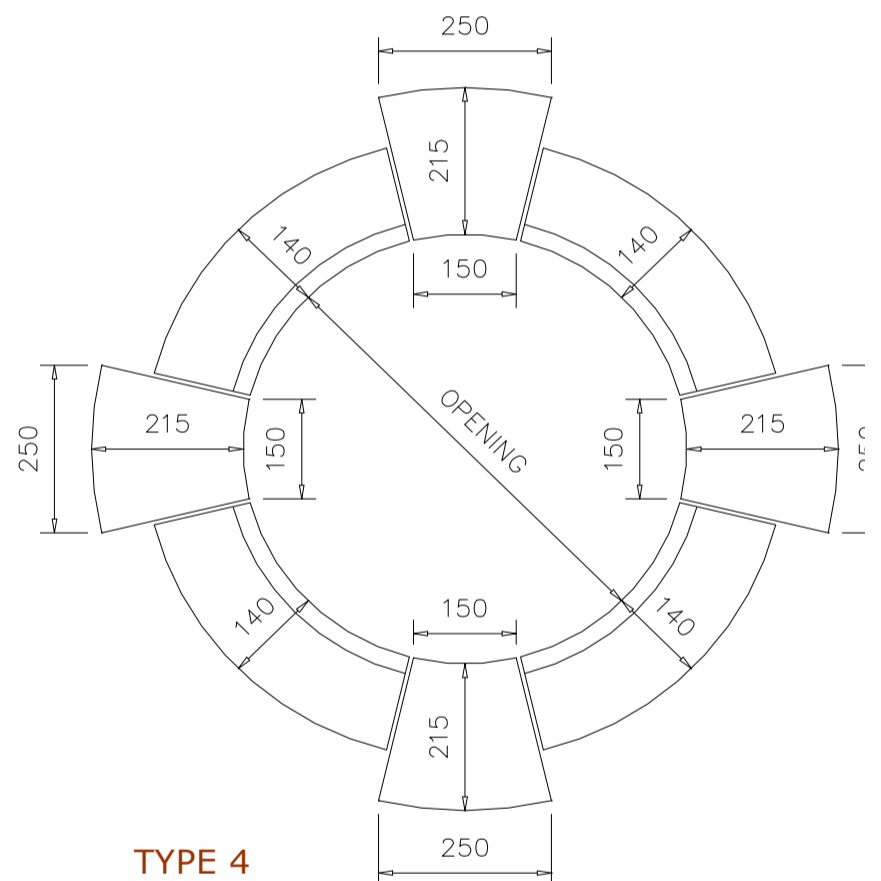
TYPE 1



TYPE 2



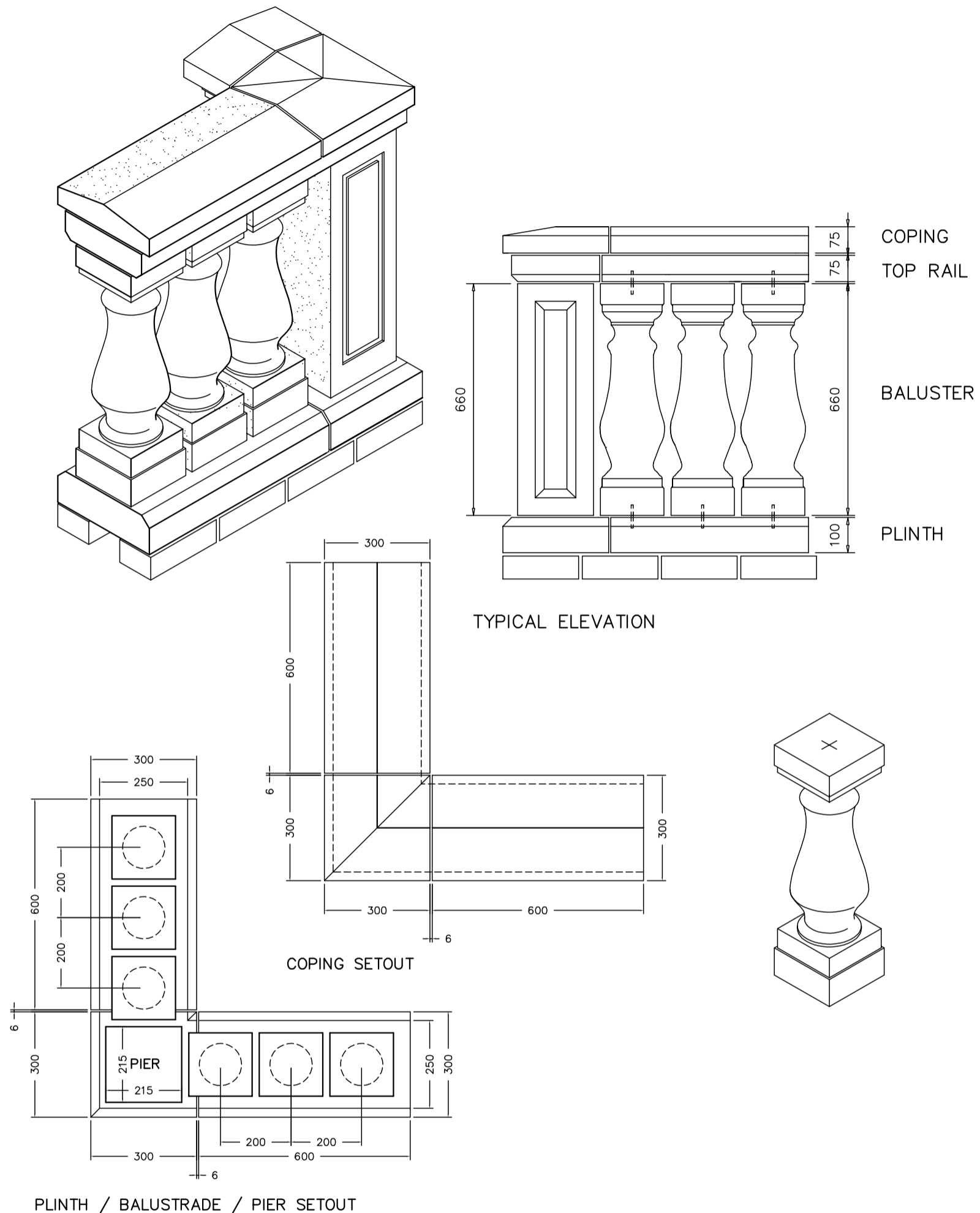
TYPE 3



TYPE 4

Notes

- Bullseyes available at 100mm, 120mm, 140mm and 150mm thick to suit various wall thicknesses.
- Bullseyes also available 215mm wide with 290mm (H) keystones.
- Keystones to type 4 available in flush finish or projecting.
- All keystone available radiused external and internal edges or flat.
- Various diameters available.
- Specials manufactured to order.

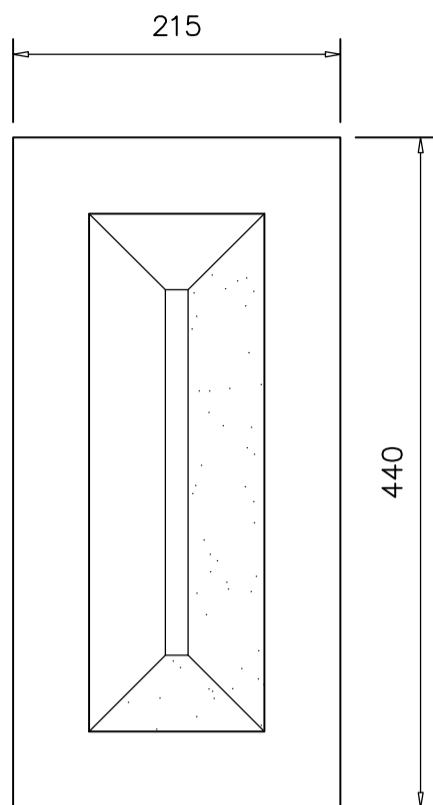


Notes

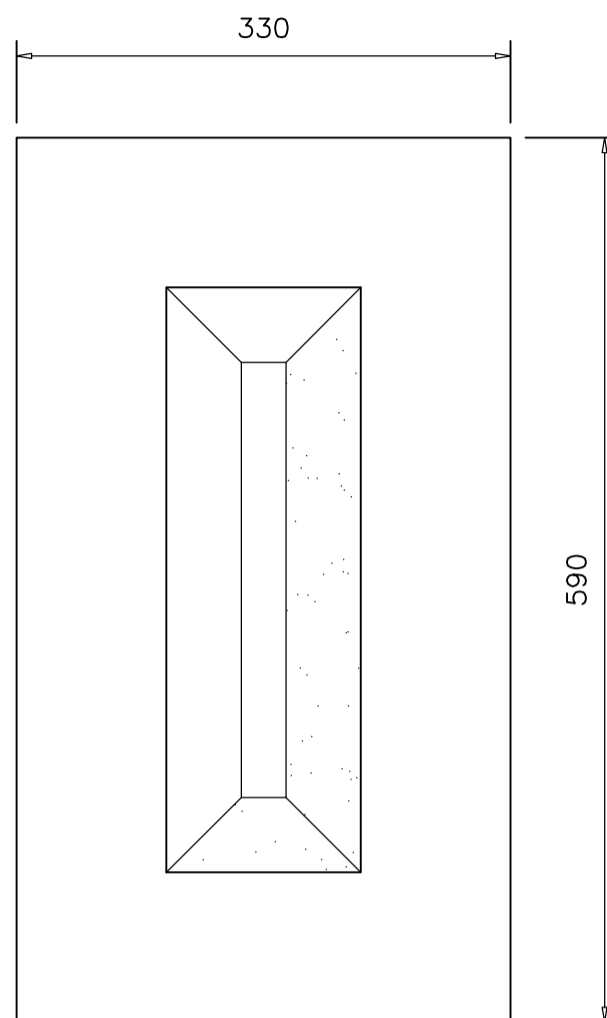
Balustrade supplied pre-drilled to accept stainless steel location dowels (supplied either as an extra or by others).

Height of plinth can be increased to suit. Specials manufactured to order include:

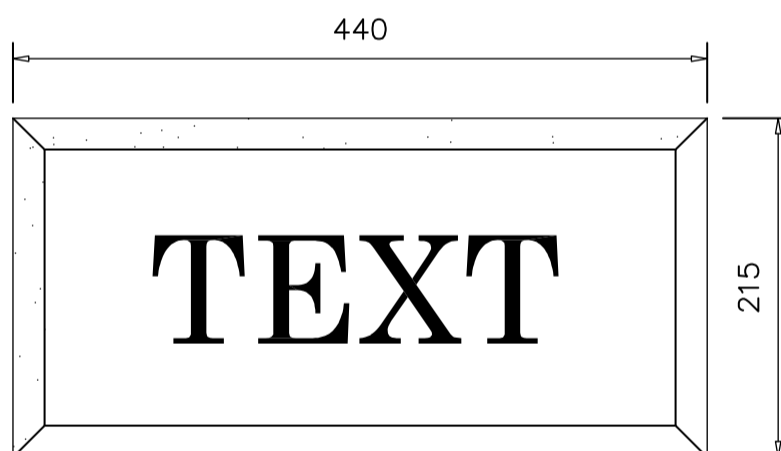
- Radial on plan sets
- Raked stair sets
- 45° Internal and external sets



ELEVATION TYPE 1



ELEVATION TYPE 2



ELEVATION-STANDARD NAME/DATE STONE

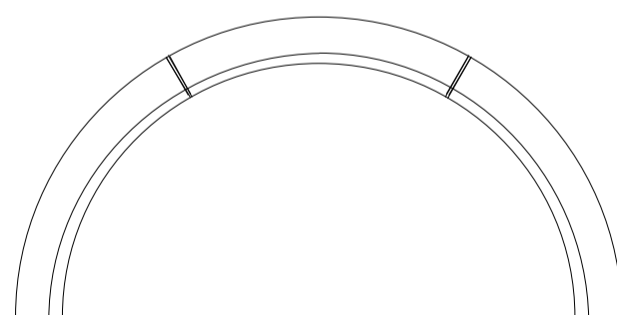
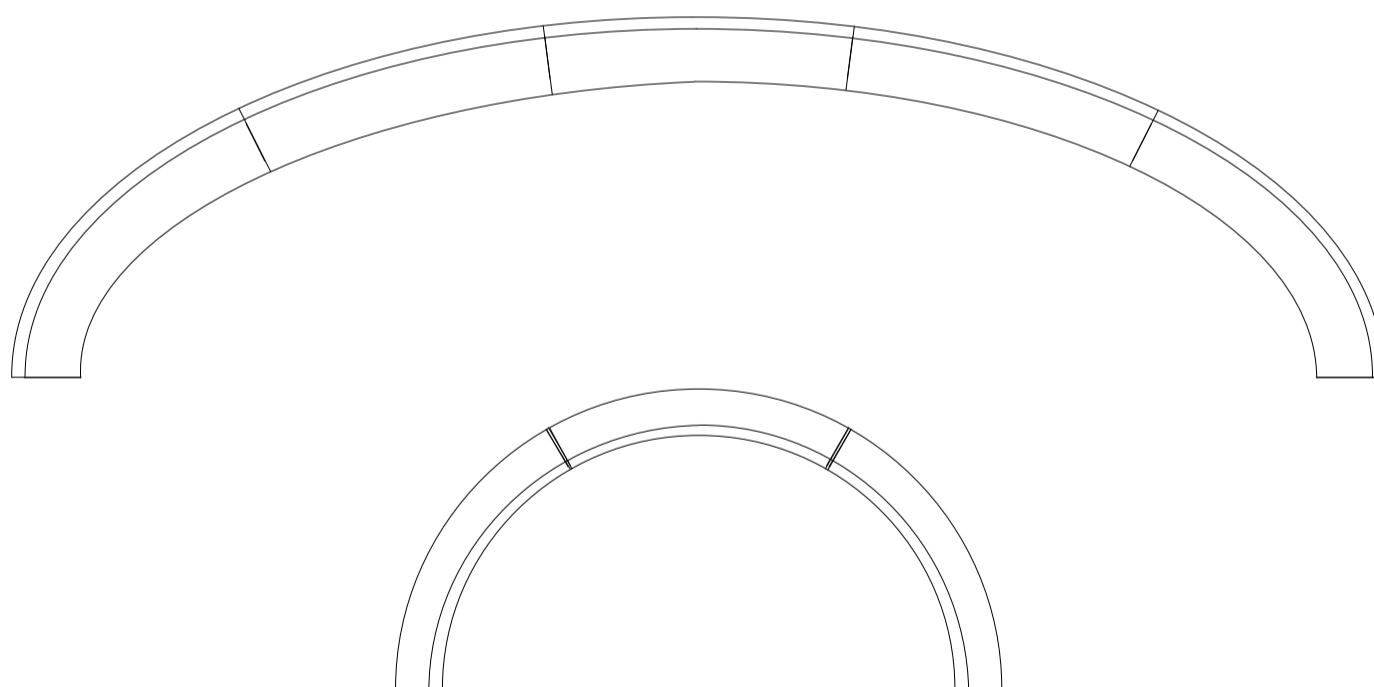
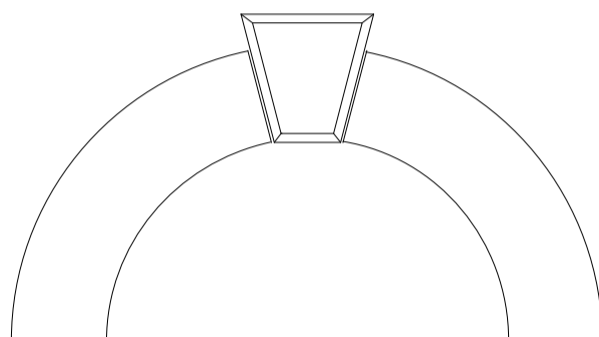
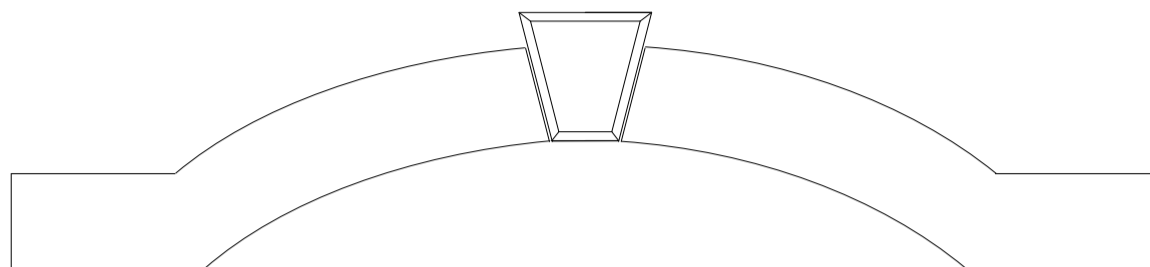
Notes

NAME & DATE STONES:

- Standard dimensions 440mm (L) x 215mm (H).
- Available with or without chamfer and with various text.
- Text/numerals in recessed century typeface.
- Non standard dimensions manufactured to order.

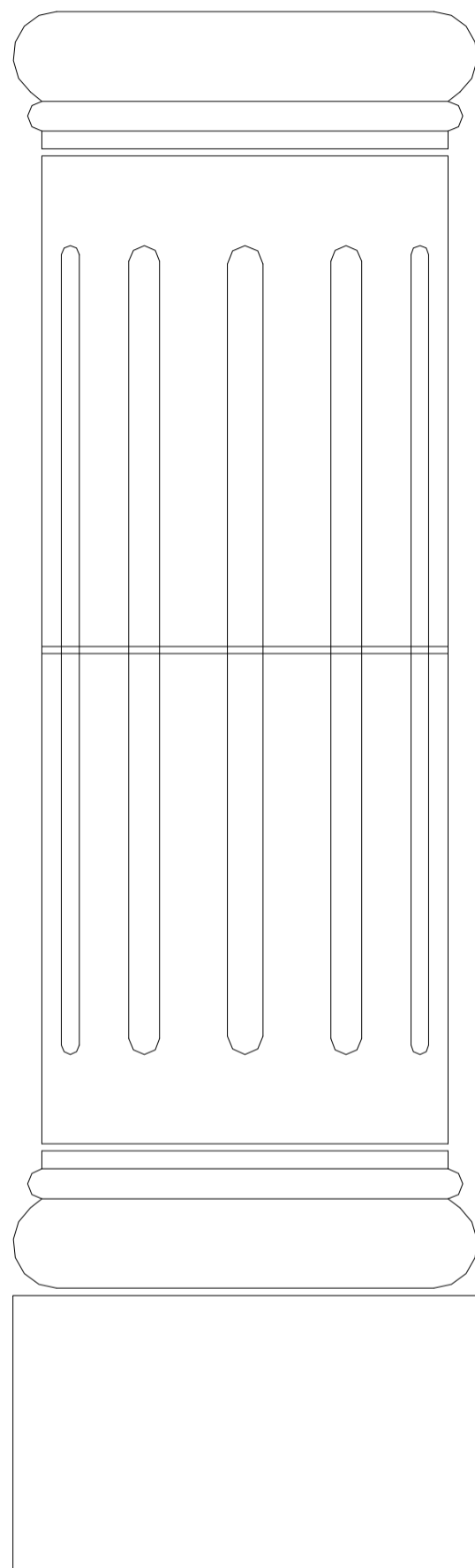
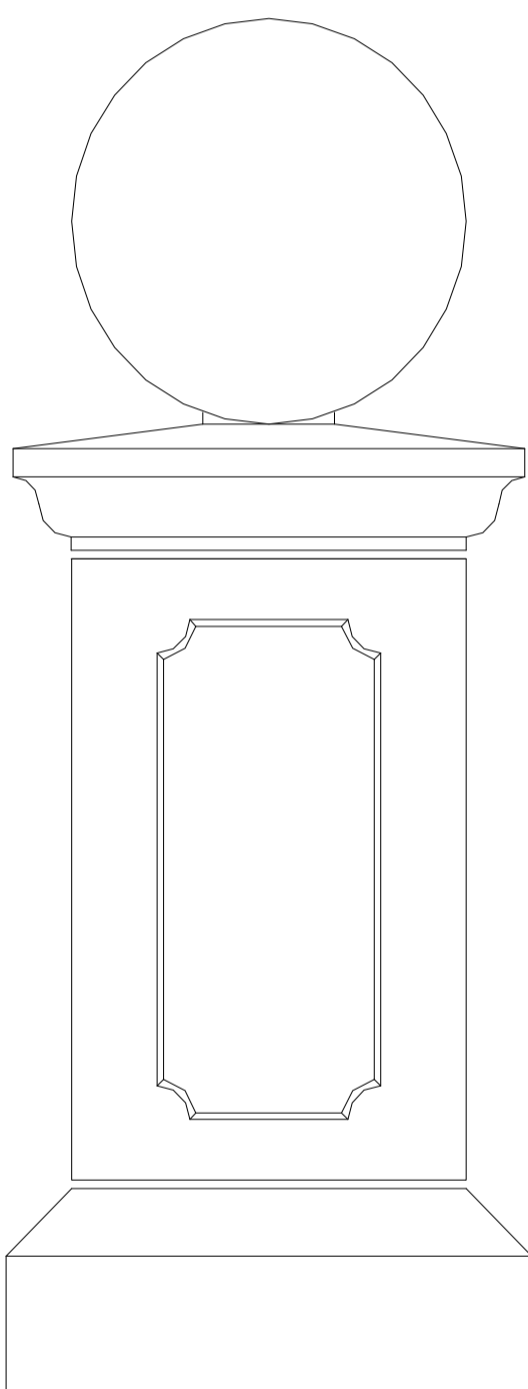
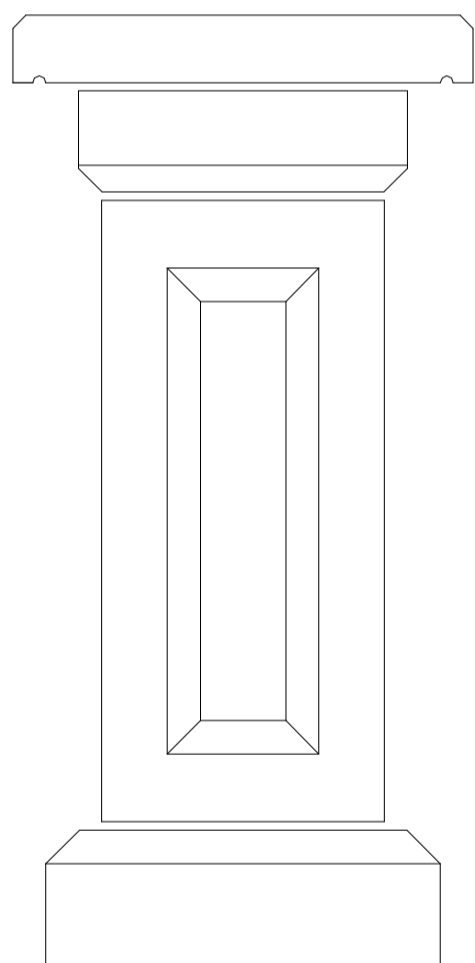
GABLE VENTS:

- Available in various depths, maximum depth 150mm.
- Available as false backed units or through units.



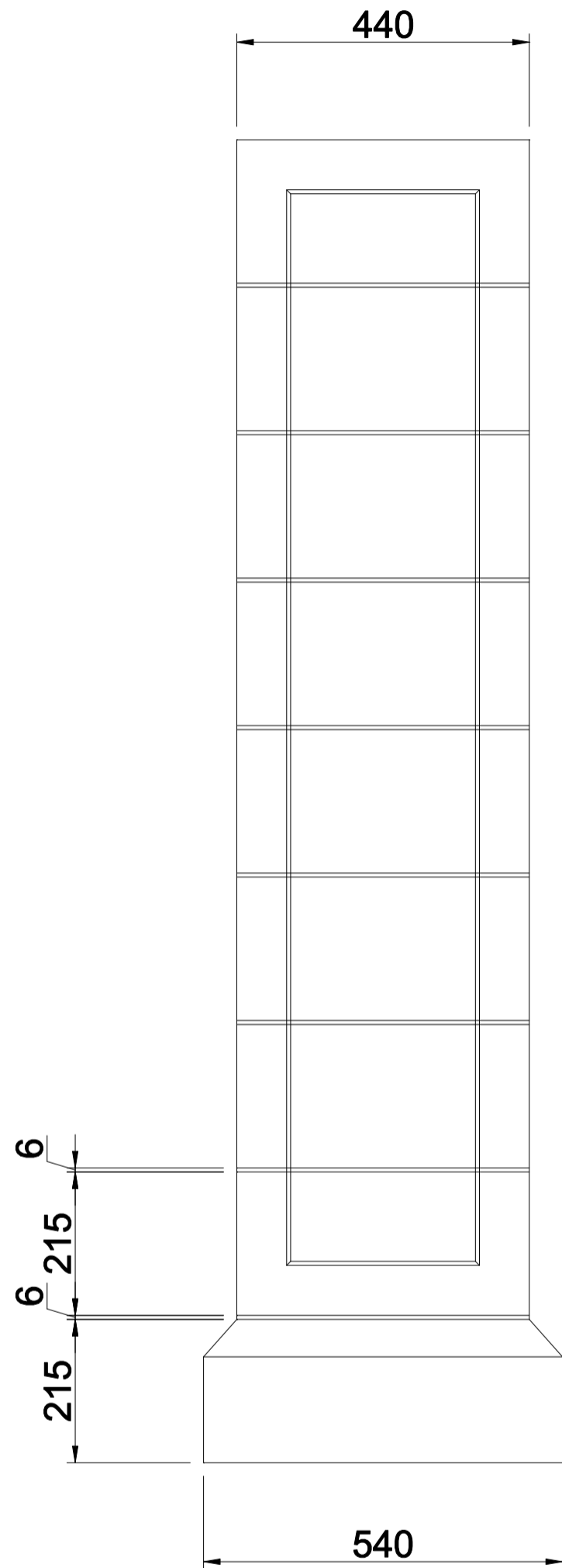
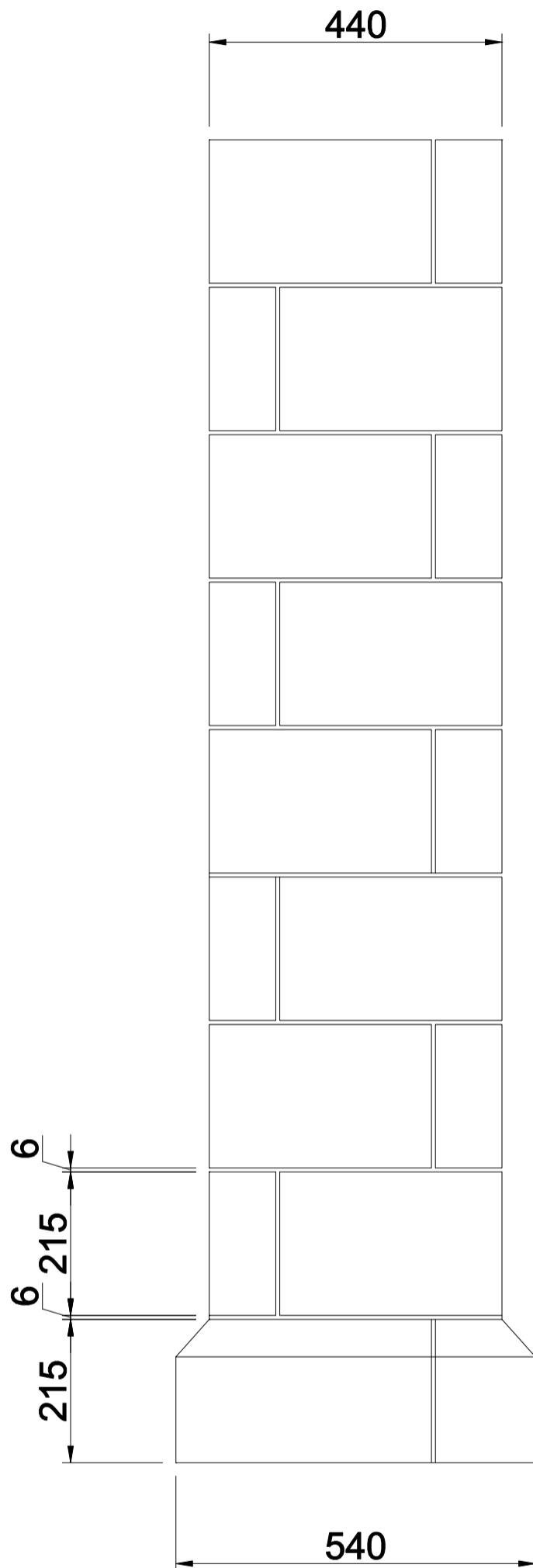
Notes

Please contact us for further information on this type of product



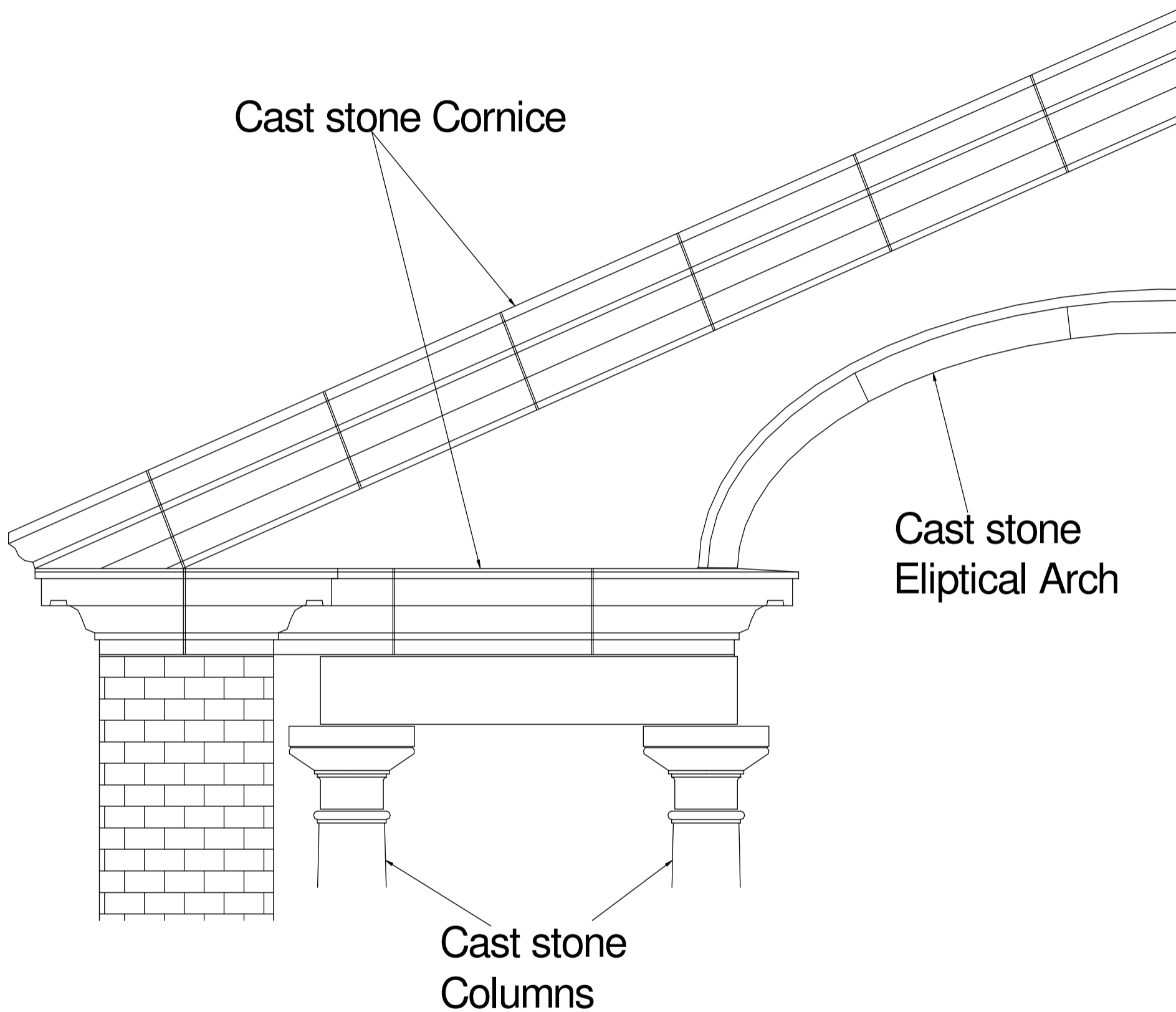
Notes

Please contact us for further information on this type of product



Notes

- Gates and railings etc. should not be fixed to or hung from piers.
- Please contact us to discuss options and possibilities.



Notes

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