



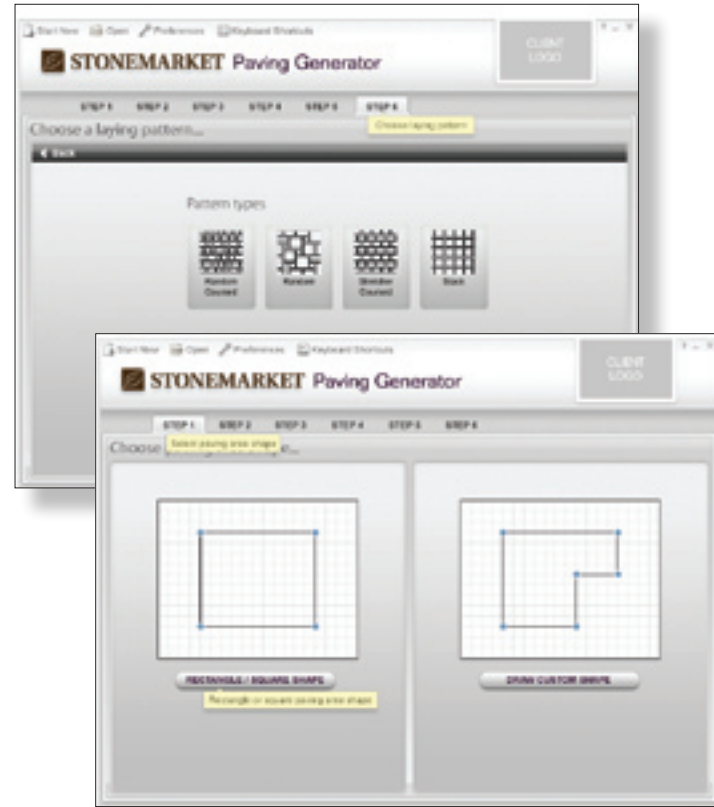
Generate laying patterns in minutes

New for 2010 is a welcomed update to the popular Random Patio Generator, the new Paving Generator.

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- The quantity of materials required
- The carbon footprint of your project

Available at www.stonemarket.co.uk or at your local stockist.



design guide

millstone flag paving (pages 14-25)



This layout uses:
 6 No. 775 x 775mm
 6 No. 930 x 620mm
 5 No. 775 x 620mm
 5 No. 620 x 620mm
 6 No. 775 x 465mm
 5 No. 620 x 465mm
 6 No. 465 x 465mm
 6 No. 620 x 310mm
 7 No. 465 x 310mm
 6 No. 310 x 310mm

One slab of each of the 10 Millstone Flag sizes shown covers a total of 3.34 square metres. One full pack of each of these 10 sizes covers a total of 79.2 square metres.

5.58 x 3.41m = 19.0m²

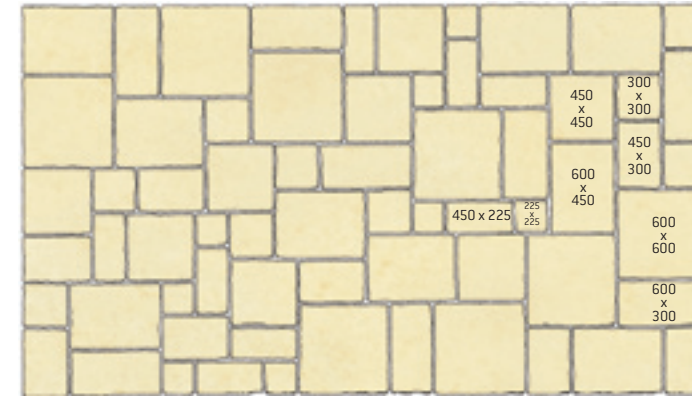
General Principles for Random Layouts

The drawings shown are examples only and will need to be adapted to the actual shape and size of the area you wish to cover. For the best effect, use as many different sizes as possible, in approximately equal quantities of each size. Avoid four slab corners coming together, or two identical slabs laid side by side. Keep straight lines to a reasonable length, never across the whole area. For narrow, irregular shaped and small areas, we recommend drawing the design before starting to lay the slabs.

Additional examples of random layouts are available from our sales office, website or stockists.

all layouts to 1:50 scale

yorkstone riven paving



(pages 28-37)

This layout uses:
 8 No. 600 x 600mm
 8 No. 450 x 450mm
 8 No. 600 x 300mm
 8 No. 450 x 300mm
 9 No. 300 x 300mm
 8 No. 450 x 225mm
 9 No. 600 x 450mm
 8 No. 225 x 225mm

One slab of each of the 8 Yorkstone Riven sizes available covers a total of 1.39 square metres. One full pack of each of the 8 sizes covers a total of 55.3 square metres.

2.55 x 4.5m = 11.5m²

trustone paving Fieldland, Glenmoor, Fellstyle, and Torvale



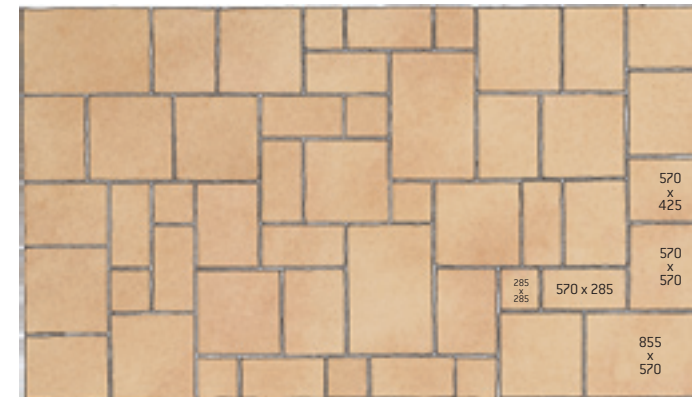
(pages 66-83)

This layout uses the exact quantities contained in our project packs of those Trustone Pavings available in 8 different sizes:
 6 No. 855 x 425mm
 4 No. 425 x 425mm
 7 No. 855 x 570mm
 8 No. 570 x 285mm
 7 No. 570 x 570mm
 7 No. 425 x 285mm
 7 No. 570 x 425mm
 4 No. 285 x 285mm

One slab of each of the 8 sizes available in these varieties of Trustone covers a total of 1.97 square metres. One full pack of each of the 8 sizes covers a total of 95.4 square metres.

2.99 x 4.27m = 12.8m²

trustone paving Sable, CotSDale and Sage (pages 76-79)



2.56 x 4.56m = 11.7m²

This layout uses the exact quantities contained in our project packs of Trustone Sable, CotSDale and Sage.
 4 No. 855 x 570mm
 13 No. 570 x 570mm
 12 No. 570 x 425mm
 11 No. 570 x 285mm
 10 No. 285 x 285mm

One slab of each of the 5 sizes shown covers a total of 1.3 square metres.

vintage stone paving

Manor, Frost and Abbey (pages 84-93)

marketstone paving (pages 108-109)

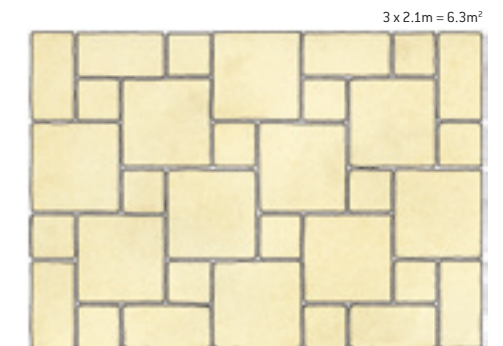


This layout uses the exact quantities contained in our project packs of Vintage Stone (Manor, Frost and Abbey) and Marketstone.
 9 No. 855 x 570mm
 8 No. 570 x 570mm
 10 No. 570 x 425mm
 10 No. 570 x 285mm
 8 No. 285 x 285mm

One slab of each of the 5 sizes shown covers a total of 1.3 square metres. When the plan is used for Marketstone Sand Multi Paving, it will cover 13.4 square metres due to the slab sizes being larger in that colour.

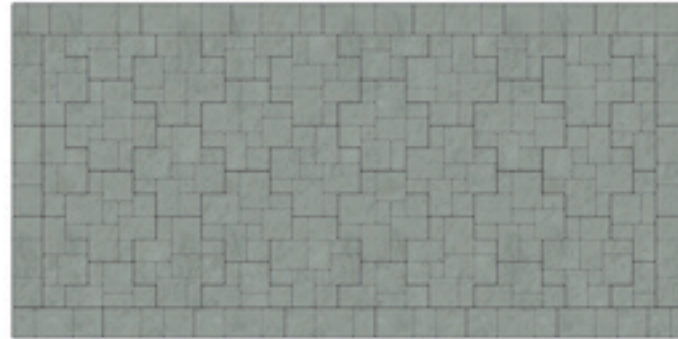
dutch pattern

An interesting formal pattern, shown here using 600 x 600mm and 300 x 300mm sizes, with some 600 x 300mm around the perimeter, it can be adapted for any two sizes of square slab. If combinations of full, half and quarter slabs are used, perimeter cutting can be avoided. The drawing below contains 10 full, 8 half and 14 quarter slabs. The area covered depends on the sizes used.



3 x 2.1m = 6.3m²

cruciform (pages 4,5)



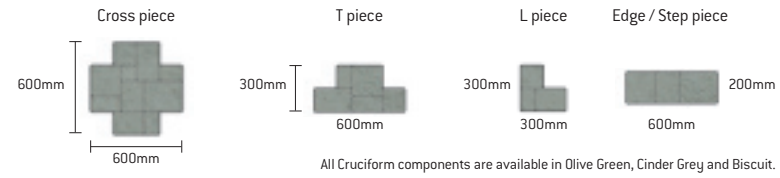
4.45 x 2.20m = 9.7m²

Cruciform is an innovative paving range from Stonemarket that replicates the appearance of randomly laid stone setts, but offers greatly enhanced ease and speed of installation. The main area of paving is laid using the unique Cross piece. These have integral spacing nibs on all edges to give an accurate joint width, and each unit can be laid four different ways round to give a truly random pattern to the finished paving.

The T and L pieces are used to fill in around the perimeter without any cutting being needed. The T piece is used to infill along the sides of the paved area, while the L piece is needed in some corner situations. The Edge/ Step piece is invaluable where there is a change of level, or for use as an edging around the whole perimeter.

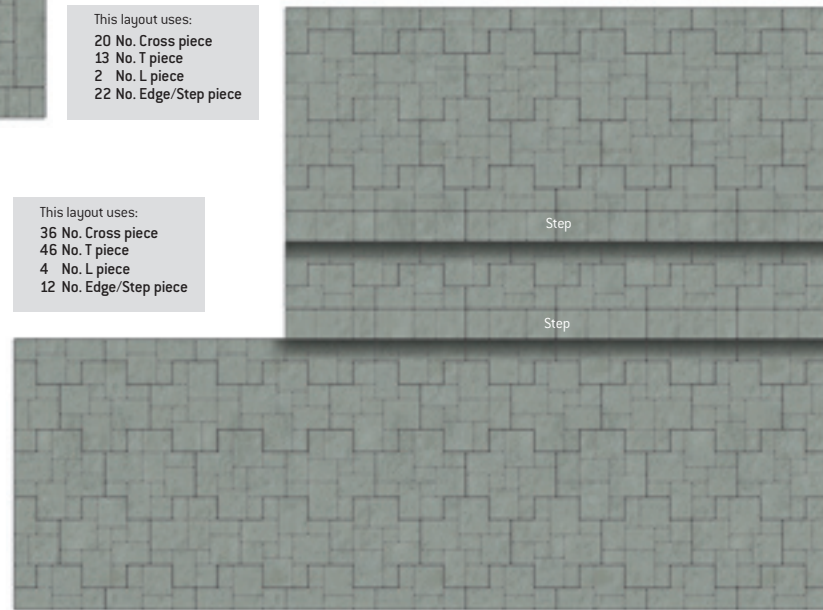
Cruciform should be laid on a full bed of mortar, see Paving Flag Laying Guide page 138. Both the moulded and actual joints should be pointed with a suitable polymer sand in strict accordance with the manufacturer's instructions.

Cruciform Components



All Cruciform components are available in Olive Green, Cinder Grey and Biscuit.

This layout uses:
20 No. Cross piece
13 No. T piece
2 No. L piece
22 No. Edge/Step piece



This layout uses:
36 No. Cross piece
46 No. T piece
4 No. L piece
12 No. Edge/Step piece

avant-garde etched (page 62-65)

Both Avant-garde Etched Swirl and Helix are available as kits of six 855 x 570mm slabs, in a choice of either Ebony or Silver. The paving should be laid on a full bed of mortar, with minimal joints, see Paving Flag Laying Guide page 138.

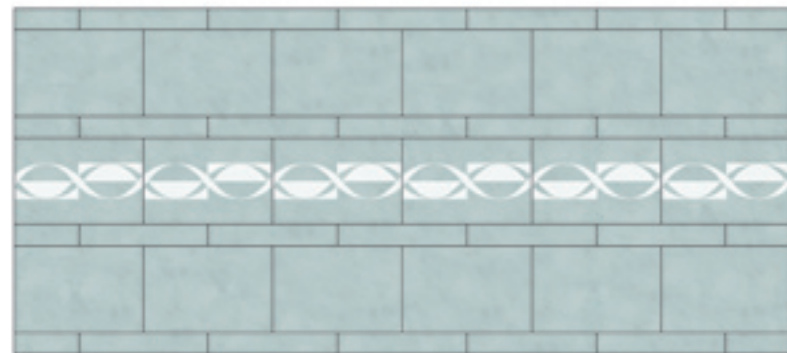


Swirl

The exquisite pattern etched into the surface of Swirl repeats from one slab to the next in the same way as a wallpaper pattern. This enables the paving to be used to create an all-over pattern for a truly modern, contemporary feel. Alternatively Swirl can be teamed up with Avant-garde paving of the same colour, to be used as feature panels. The kit of six slabs can be arranged in three rows of two to create a square panel 1710 x 1710mm, see plan on right and photograph on page 85. Two rows of three slabs will form a rectangle of 2656 x 1140mm, see plan on left. Larger panels can be created by adding more kits.

This layout uses:
6 No. Avant-garde Etched Swirl [1kit]
10 No. 855 x 142mm Avant-garde [2 cut]

This layout uses:
6 No. Avant-garde Etched Swirl [1kit]
9 No. 855 x 142mm Avant-garde [1 cut]



This layout uses:
6 No. Avant-garde Etched Helix [1kit]
12 No. 855 x 570mm Avant-garde
24 No. 855 x 142mm Avant-garde

Helix

The etched Helix pattern is a strikingly modern linear design. The slabs are designed to be laid end to end; a complete kit will create a pattern 5.13m long. The plan above is similar to the photograph on page 62, although here it is shown using a combination of Helix, 855 x 570mm and 855 x 142mm Avant-garde.

arctic granite revolve (page 104)

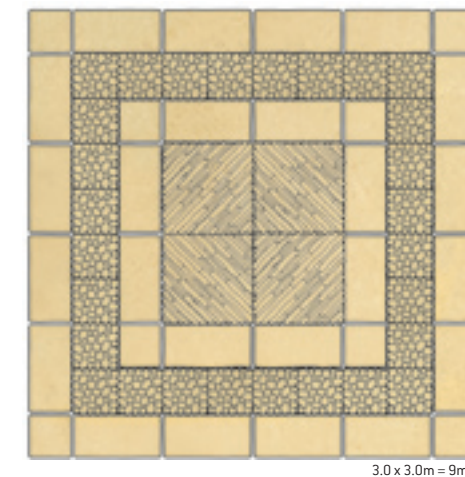


Supplied as a complete 73 piece kit the Revolve feature is 2.4m square. It can be surrounded by 18 No. Arctic Granite Glacier 600 x 300mm to increase its size to 3m square as shown on page 104.

concept (page 26)

The Concept range opens up a wide range of design possibilities, allowing you to combine any of the four contrasting textures. Pebble, Ammonite and Drystone have the same special interlocking edge shape; when several slabs are laid together this disguises the joint lines, giving the appearance of a continuous texture. This effect can be enhanced by brushing our Pavior Jointing Sand into the joints and within the paving texture. Specific laying advice is given on page 138.

All Concept components including the Project Pack are available in both Amber and Shadow colours.



3.0 x 3.0m = 9m²

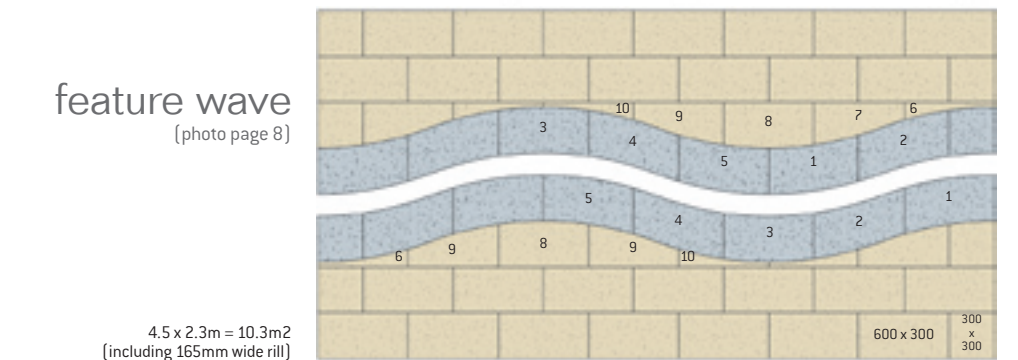
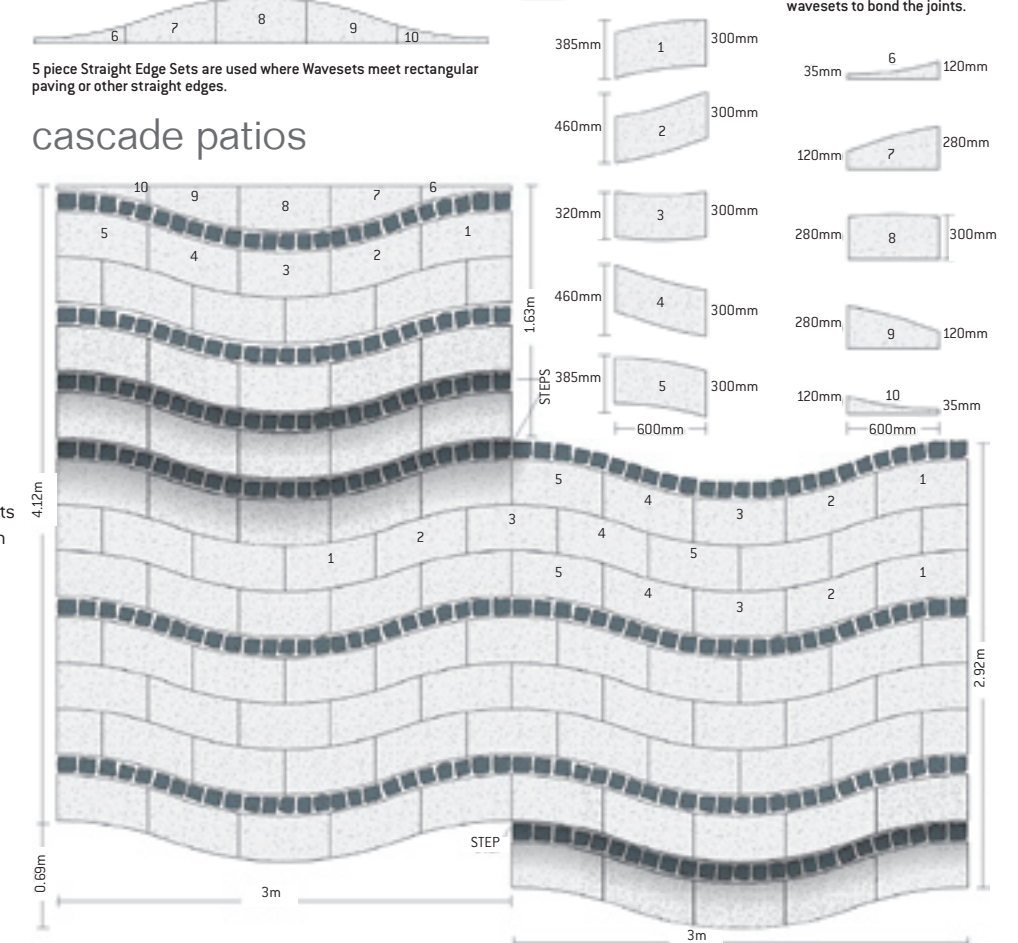
Concept Project Pack.

This layout uses the exact quantities contained in our Project Pack:

- 4 No. 600 x 600mm Drystone
- 28 No. 300 x 300mm Pebble
- 24 No. 600 x 300mm Riven
- 8 No. 300 x 300mm Riven

rio cascade (pages 6, 7, 8, 13)

The Rio Cascade system can be extended as far as you wish in each direction using the same Wavesets. Components are supplied labelled with numbers for easy identification. For easy laying, line up the straight joints precisely. Inserting temporary spacers will help to keep joint widths consistent. In the drawings, some No.3 and No.8 Modules have been cut in half. Dimensions assume Rio Paving laid with 3mm sand filled joints. If wider mortared joints are used, dimensions will increase and the shape will not be so precise.



feature wave (photo page 8)

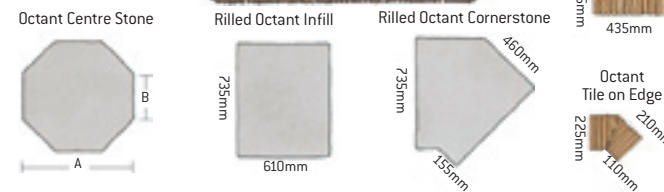
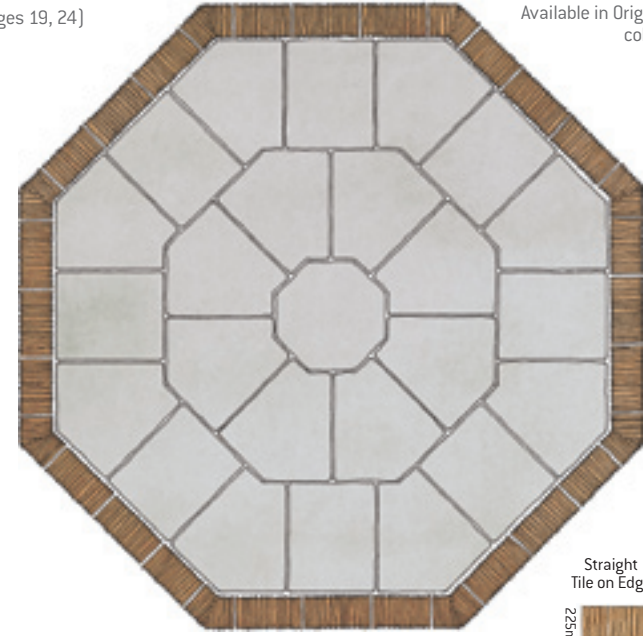
4.5 x 2.3m = 10.3m²
(including 165mm wide rill)

all layouts to 1:50 scale

rilled millstone octant

(pages 19, 24)

Available in Original colour

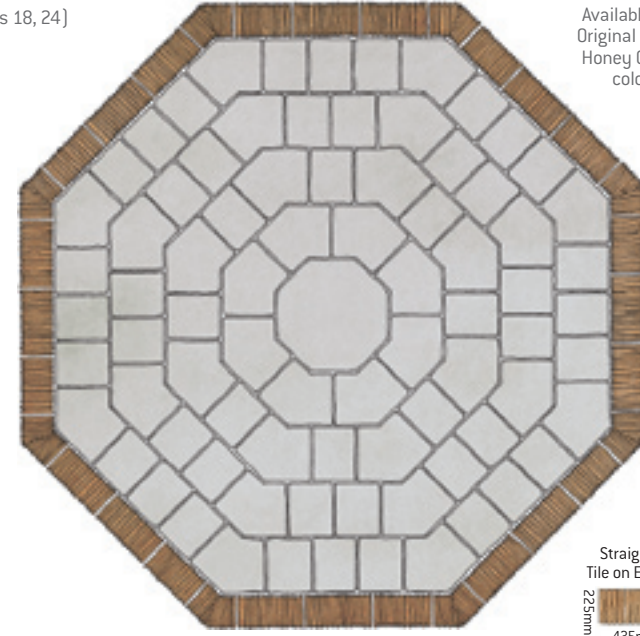


	Corners	Infills	A (m)	B (m)	Area (m ²)
Centre	0	0	0.735	0.310	0.44
+1 ring	8	0	2.205	0.920	4.02
+2 rings	16	8	3.675	1.530	11.16
+3 rings	24	24	5.145	2.140	21.89
+4 rings	32	48	6.615	2.750	36.20
+5 rings	40	80	8.085	3.360	54.08
Each additional ring will add			1.470	0.610	varies
Tile on Edge border adds			0.450	0.200	varies

petite millstone octant

(pages 18, 24)

Available in Original and Honey Gold colours

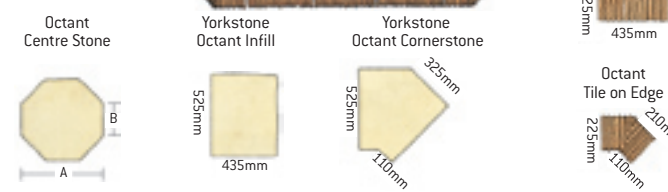
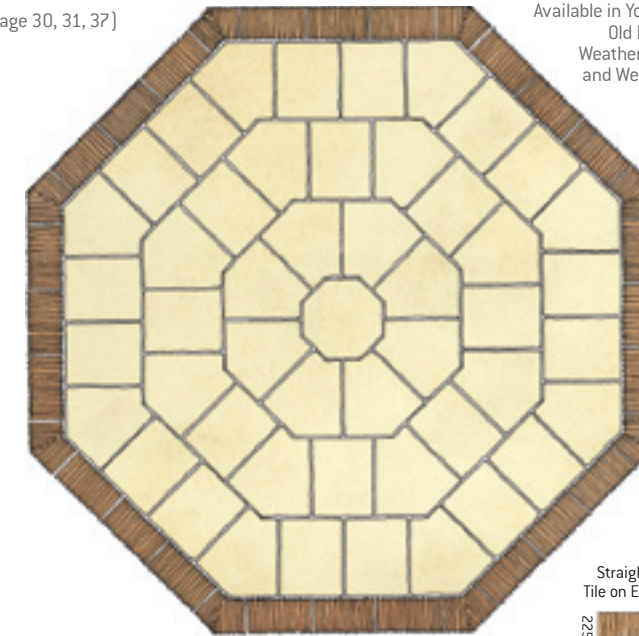


	Corners	Infills	A (m)	B (m)	Area (m ²)
Centre	0	0	0.310	0.310	0.44
+1 ring	8	0	1.470	0.615	1.78
+2 rings	16	8	2.205	0.920	4.02
+3 rings	24	24	2.940	1.225	7.14
+4 rings	32	48	3.675	1.530	11.16
+5 rings	40	80	4.410	1.835	16.08
Each additional ring will add			0.735	0.305	varies
Tile on Edge border adds			0.450	0.200	varies

yorkstone octant

(page 30, 31, 37)

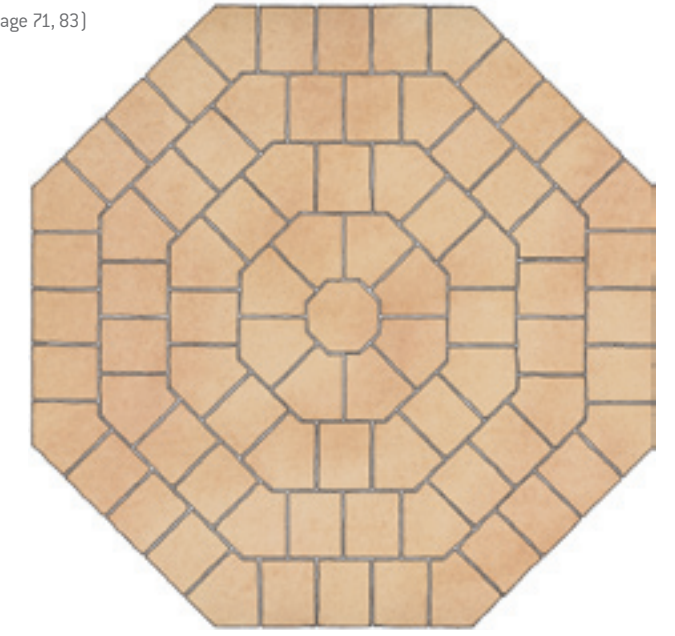
Available in York Buff, Old English, Weathered York and Weathered Bronze colours



	Corners	Infills	A (m)	B (m)	Area (m ²)
CENTRE	0	0	0.525	0.220	0.23
+1 ring	8	0	1.575	0.655	2.05
+2 rings	16	8	2.625	1.090	5.70
+3 rings	24	24	3.675	1.525	11.18
+4 rings	32	48	4.725	1.960	18.48
+5 rings	40	80	5.775	2.395	27.61
Each additional ring will add			1.050	0.435	varies
Tile on Edge border adds			0.450	0.200	varies

trustone fieldland octant

(page 71, 83)



	Corners	Infills	A (m)	B (m)	Area (m ²)
CENTRE	0	0	0.450	0.190	0.17
+1 ring	8	0	1.370	0.570	1.55
+2 rings	16	8	2.290	0.950	4.34
+3 rings	24	24	3.210	1.330	8.54
+4 rings	32	48	4.130	1.710	14.13
+5 rings	40	80	5.050	2.090	21.13
Each additional ring will add			0.920	0.380	varies

Lay all Fieldland Paving larger face upwards, with 10mm joints.

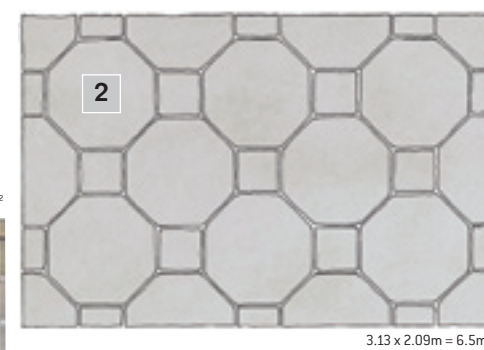
Dimensions listed for Rilled Millstone Octant, Petite Millstone Octant and Yorkstone Octant are those achieved when all elements are closely jointed. When laid, sizes are usually slightly larger

interlinked octagons

All Octant Features can be inset into rectangular paving by a few straight cuts to the surrounding slabs. However, the design will be more interesting if several octagons are interlinked to cover the whole area available. Edges can be left informal, or slabs cut if a straight line is preferred.

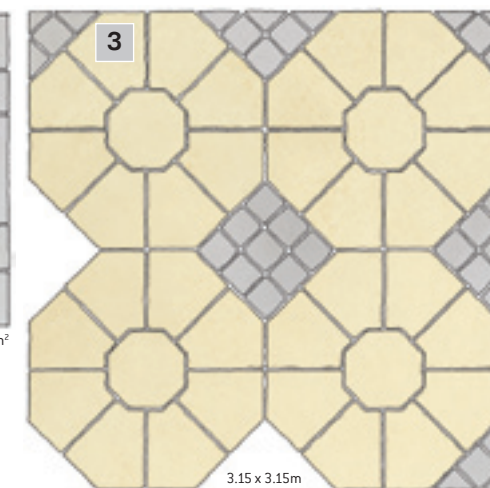


Yorkstone Octant Centre Stones interlink with 225 x 225mm Yorkstone Riven. One Centre Stone plus one square covers 0.28m².



Millstone Octant Centre Stones interlink with 310 x 310mm Millstone Flags. One Centre Stone plus one square covers 0.54m².

Both styles 1 and 2 can be achieved using either Millstone or Yorkstone. Styles 3 and 4 work on the same principle using Octant First Rings.

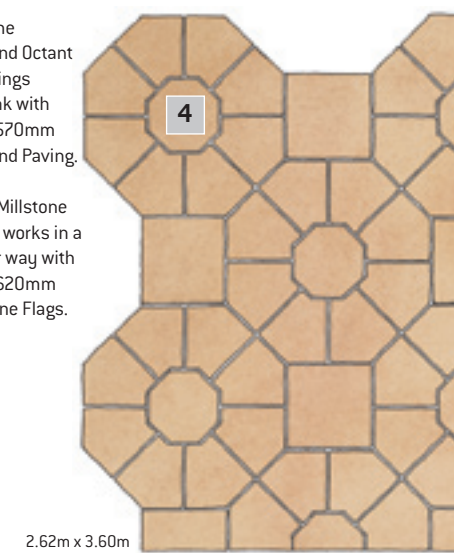


Yorkstone Octant First Rings interlink with 9 No. 225 x 225mm Yorkstone Riven.

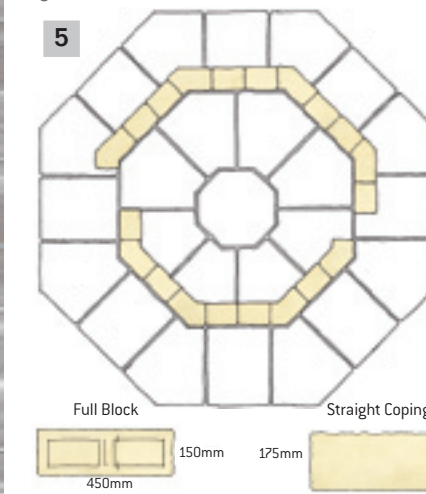
all layouts to 1:50 scale

Trustone Fieldland Octant First Rings interlink with 570 x 570mm Fieldland Paving.

Petite Millstone Octant works in a similar way with 620 x 620mm Millstone Flags.



yorkstone octant walling



Yorkstone Walling Units at 1:25 scale

Drawing 5 demonstrates how Yorkstone Half Blocks and Octant Blocks can be used to surround Yorkstone Octant Paving, both inside and outside, without any cutting being necessary. The Octant Block is supplied in both left and right hand versions to enable a vertical bond to be achieved. Inverting a block changes it to the opposite hand.

When laying Octant paving always lay from the centre outwards. We advise first laying out dry to determine optimum spacings before fixing on mortar.

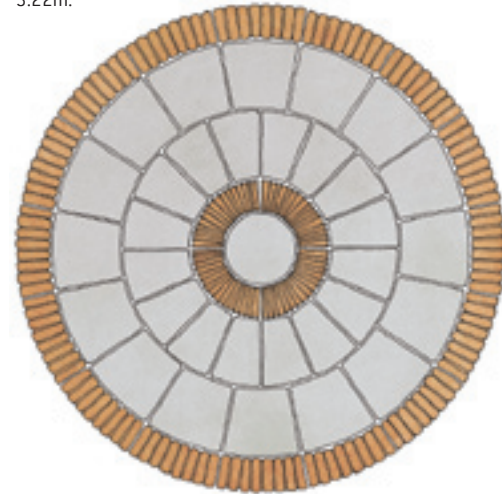
millstone radius (pages 20, 21, 24, 25)

Circles of 0.46m, 0.92m, 1.84m and 2.76m diameter can be constructed, depending on the number of rings added to the design.

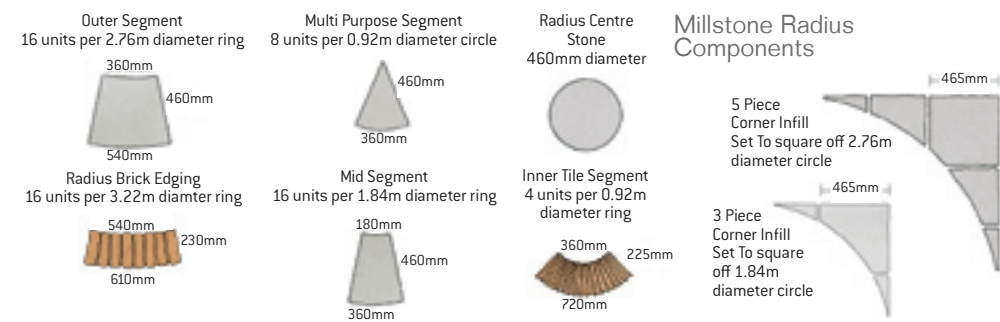
This 2.76m diameter Circle uses Multi-Purpose Segments laid with continuous radial joints, as in photograph on page 14.



Central option of Radius Centre Stone plus Inner Tile Segments laid with offset radial joints, as photograph page 20, then surrounded by Radius Brick Edging to give a total diameter of 3.22m.

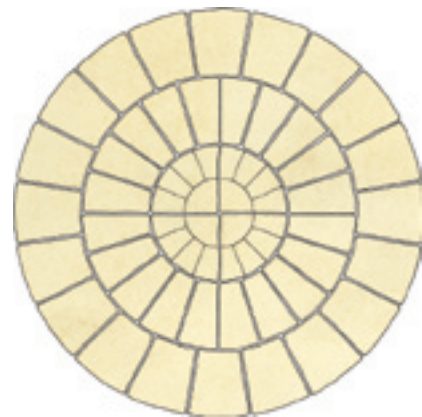


All 2.76m diameter Circles can be converted to a square with sides of 2.79m by the addition of four 5 piece Corner Infill Sets. In this example our Aztec Star has been surrounded by 16 Outer Segments.

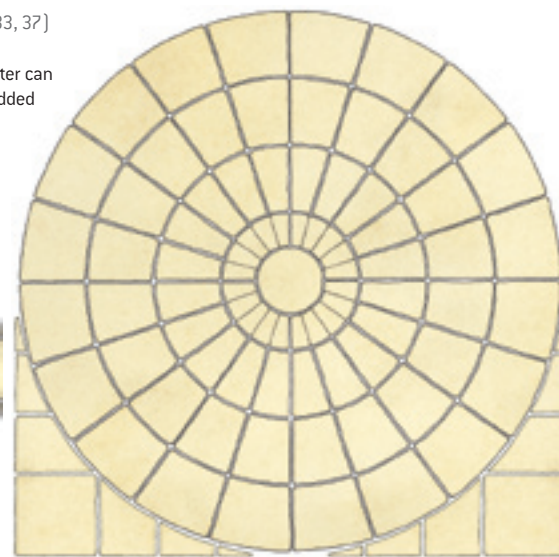


yorkstone radius (pages 32, 33, 37)

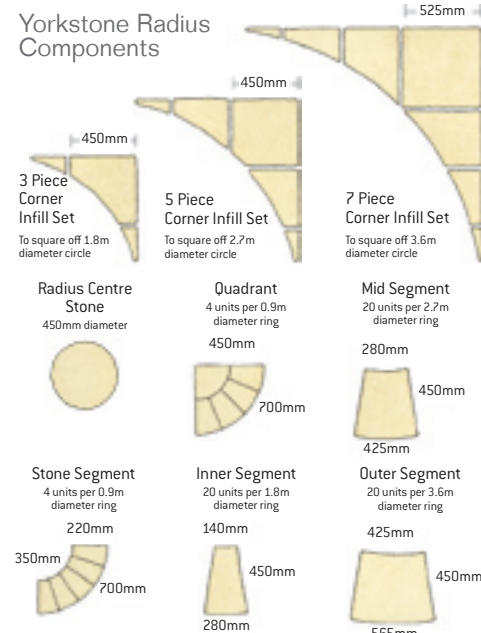
Circles of 0.45m, 0.9m, 1.8m, 2.7m and 3.6m diameter can be constructed, depending on the number of rings added to the design.



2.7m diameter Circle with Quadrant centre option, laid with offset radial joints.



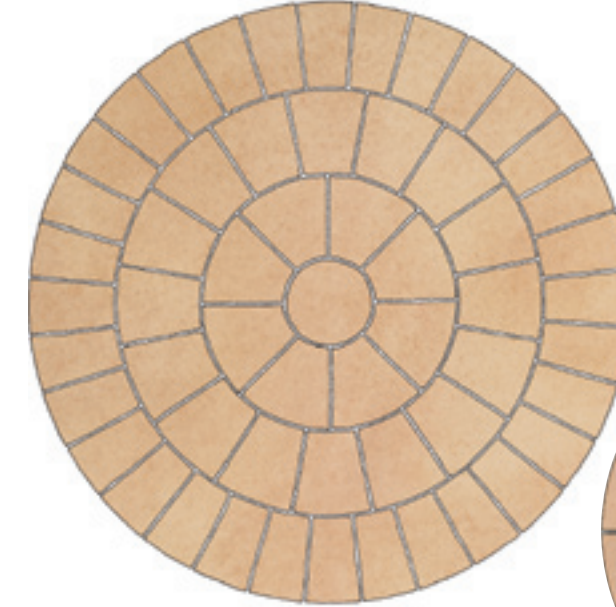
3.6m diameter Circle with Centre Stone plus Stone Segments at the centre, laid with continuous radial joints and squared off using 7 piece Corner Infill Sets.



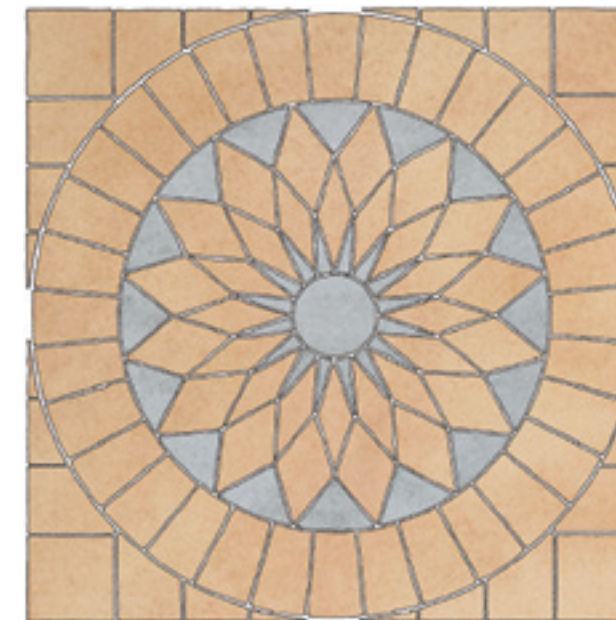
all layouts to 1:50 scale

trustone radius (pages 68-83)

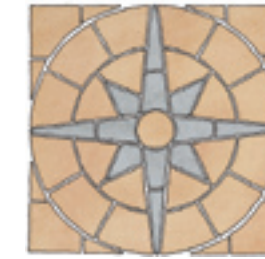
Circles of 0.56m, 1.70m, 2.84m and 3.98m diameter can be constructed, depending on the number of rings added to the design. The 3.98m circle is only available in Fieldland.



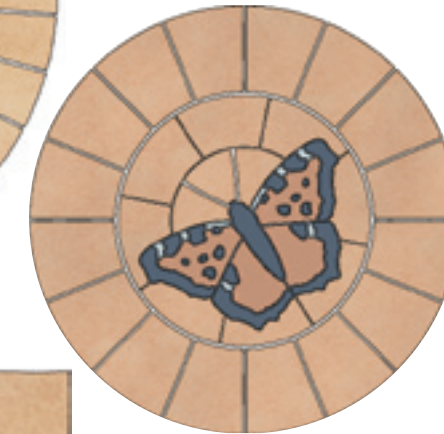
The 3.98m Fieldland Circle with Third Ring Segments added to the 2.84m Circle kit.



The Provence Sunflower is supplied as a complete 65 piece kit of Fieldland and Fellstyle stone, 2.84m diameter. Third Ring Segments are available in Fieldland to enlarge it to 3.98m, as shown on page 70 and in this drawing. 7 piece Fieldland Corner Infill Sets can then be used to square off this circle so that it can be laid within Fieldland Paving. When laying circles always lay from the centre outwards. We advise first laying out dry to determine optimum spacings before fixing on mortar.

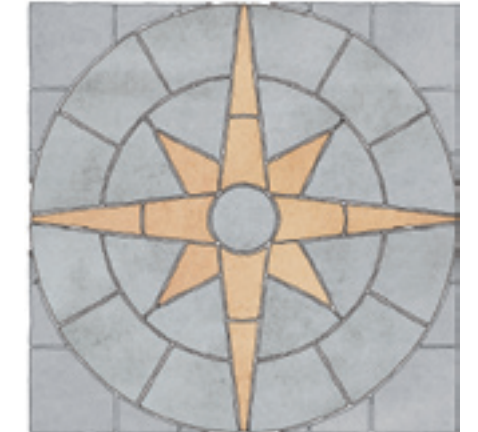
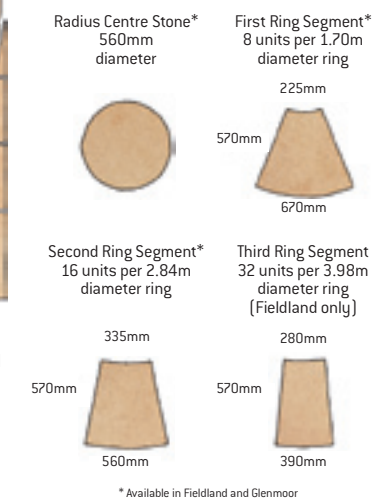


The Fieldland Nautical Star, see page 71, is 1.70m diameter and supplied as a complete 33 piece kit. 3 piece Corner Infill Sets are available in Fieldland to square off 1.7m circles.



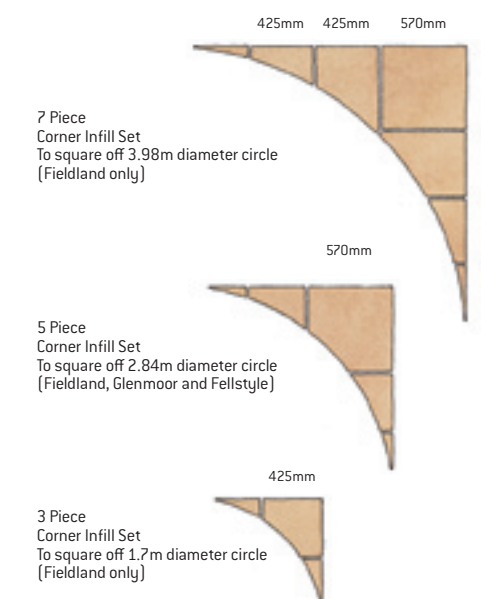
The Tortoiseshell Butterfly, see page 68, is 1.70m diameter and is supplied as a complete kit. It can be squared off by 3 piece Corner Infill Sets but is shown here surrounded by Fieldland Second Ring Segments to make a 2.84m diameter circle.

Trustone Radius Components



Both Fellstyle and Glenmoor Nautical Stars are 2.84m diameter and are supplied as complete 33 piece kits. 5 piece Corner Infill Sets are available to square off all 2.84m circles. This drawing shows Fellstyle Nautical Star, see page 75. Glenmoor Nautical Star is pictured on page 72.

The Emperor Dragonfly is 1.70m diameter and is supplied as a complete kit. It can be surrounded by Fieldland Second Ring Segments but is shown here squared off using Fieldland 3 piece Corner Infill Sets, as photo page 69.

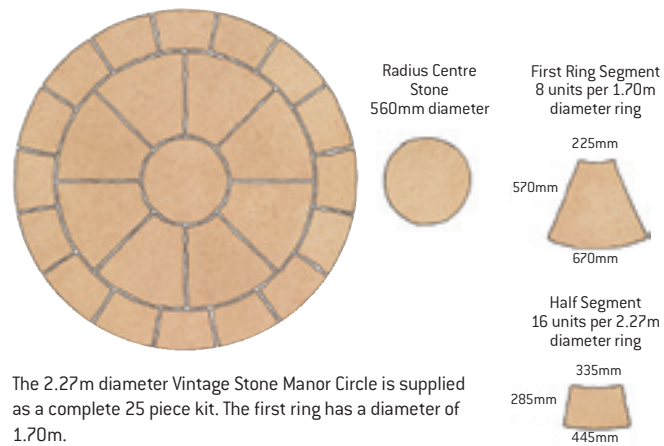


celtic knot (pages 76, 83)



The Celtic Knot feature is cut from Trustrone Sable and Cotsdale and is available as a complete 2.84m diameter 46-piece kit. Alternatively it is available as a 70-piece kit including either Sable or Cotsdale corner infills. The completed square measures 3.125m.

vintage stone manor radius (pages 86, 87, 91, 93)

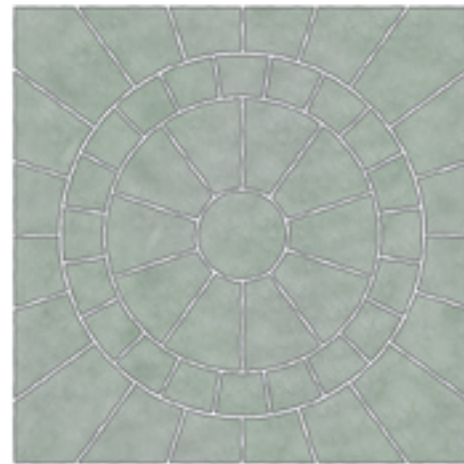


The 2.27m diameter Vintage Stone Manor Circle is supplied as a complete 25 piece kit. The first ring has a diameter of 1.70m.



The 2.27m Vintage Stone Compass Points Feature is supplied as a complete 57 piece kit. Shown here with Vintage Stone Corner Infill Sets, 4 sets make a square of side 2.85m.

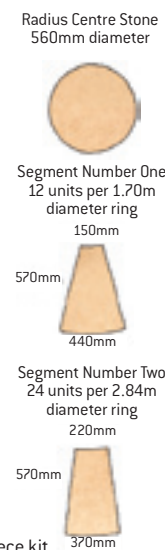
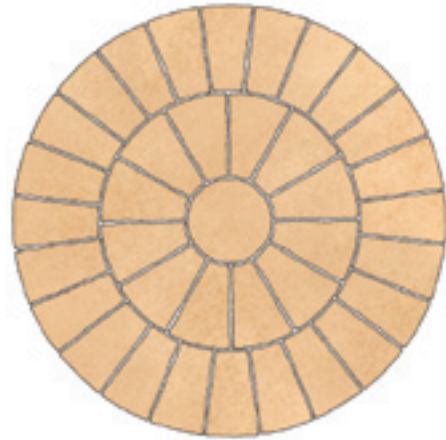
truslate circle (pages 98, 101)



Available in all Truslate colours, Truslate Circle is supplied as a complete 2.6m diameter 31-piece kit. Alternatively it is available as a 51-piece kit including corner infills. The completed square measures 3.04m.

marketstone circles (pages 108, 109)

Available in Pink Multi, Buff Multi, Brown Multi and Grey Multi.



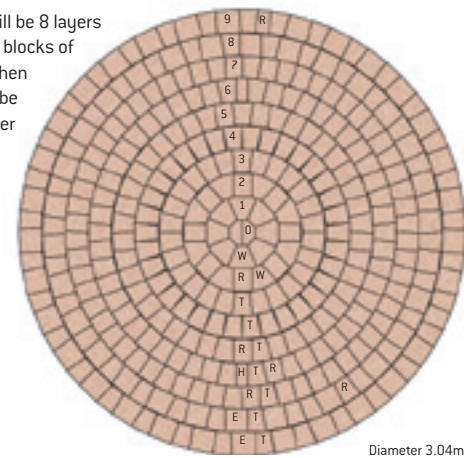
The 2.84m diameter Marketstone Circle is supplied as a complete 37 piece kit. Sand Multi Circle shares the same configuration but is 2.4m diameter.

trident circle 60mm (page 118, 119)

When the circle pack arrives it will be 8 layers high. It will include slightly more blocks of some sizes than are required. When laying the first 3 rings there will be a lot of play in the blocks, however when the full circle is laid the interlocking effect eliminates this.



- Centrepiece: 2 No. D
- 1st ring 8 No. W
- 2nd ring 8 No. W, 8 No. R
- 3rd ring 26 No. T
- 4th ring 34 No. T
- 5th ring 21 No. T, 21 No. R
- 6th ring 26 No. T, 24 No. R, 2 No. H
- 7th ring 30 No. T, 30 No. R
- 8th ring 30 No. T, 25 No. E, 5 No. R
- 9th ring 33 No. T, 32 No. E, 1 No. R



pavilion paviors (pages 120, 121)

(pages 120, 121)

Pavilion Paviors are supplied in Project Packs containing all six sizes, allowing for a choice of laying patterns.

If a single size contrasting border is desired, Trident or Drivestone Paviors can be used.



Style A is random coursed in 200mm wide courses. The two smallest sizes are always paired up. It is very quick and easy to lay.

Style B is dual-width random coursed. The 200 x 100mm size fits either course. It is quick and easy to lay.

Style C is fully random, using the same principles as the paving layouts on page 128.

PermeaPave - permeable block paving (pages 124, 125)

(pages 124, 125)

Conditions required for PermeaPave

PermeaPave featured in this brochure is intended for pedestrian traffic, domestic vehicles and commercial vehicular overrun occasionally expected on a domestic property.

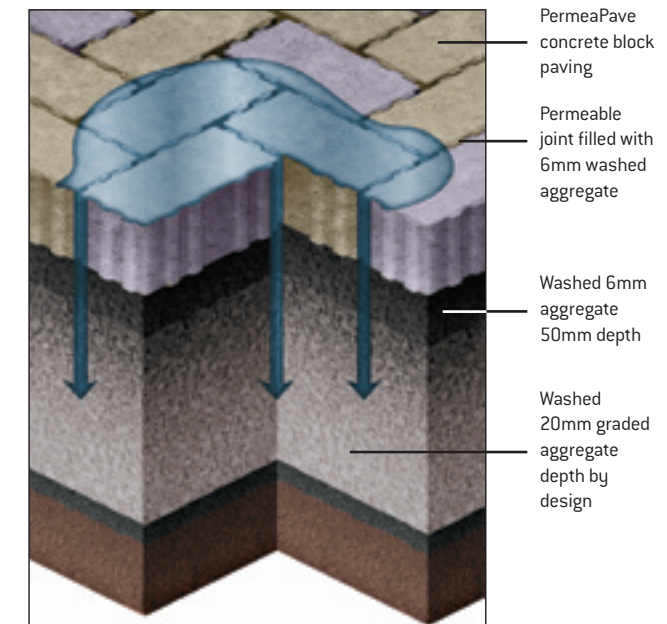
In limited parts of the country there are ground conditions where infiltration could adversely affect foundations to houses. If in doubt seek advice from the Local Authority Building Control Department or specialist.

For properties constructed prior to 1920 foundations should be checked, on excavation to ensure they are built on traditional concrete foundations. If not, then the PermeaPave paving should not be installed.

Check for services, if gas or electric services run through the intended area then advice from the service provider must be sought before PermeaPave is installed.

A test to assess soil strength and permeability should be undertaken to ensure suitability of this system. Please refer to the Technical Installation Guide for full details.

For a comprehensive guide to installing PermeaPave we would strongly advise referring to the Stonemarket PermeaPave Technical Installation Guide, available by calling 024 7651 8700 or at www.stonemarket.co.uk



Through our parent company's membership of the Ethical Trading Initiative (ETI), our supply chain is independently audited to ensure that no child labour is used in the production of our natural stone. For a copy of our Corporate Social Responsibility Report and full ETI/Sustainability Statements, please contact our sales office or visit www.stonemarket.co.uk.

Preparation

Planning Suggestions

- Draw the area to be paved using graph paper.
- A scale of 1:50 will allow direct use of the drawings on pages 128-137.
- Use dimensions that minimise cuts to paving.
- Paving surface must be at least 150mm below the damp course in any adjacent wall.
- Provide a gradient of 1:40 or steeper, towards adequate drainage.

Paving Installation

- This is heavy work, requiring specific skills, tools and experience.
- Before starting, refer to suitable professional advice, publications or websites.
- The following advice assumes you have acquired a basic knowledge of what is required, including health and safety precautions.

Foundations

- These depend on ground conditions and expected use.
- For light pedestrian use on solid, even ground, 40mm compacted sharp sand may be adequate.
- For less stable or wet ground, provide 100mm well compacted hardcore beneath the sand.
- For domestic driveways, increase the hardcore depth to 150mm. For Paviors then follow the Pavior Laying Guide; for Flagstones the section headed Driveways.

Groundworks

- Mark out the area and dig out to the required total depth.
- Tap in wooden pegs to show the levels for the finished surface, including the required gradients.
- Infill the appropriate foundations and remove the pegs before laying the paving.
- For Rio Paving and all Paviors, follow Pavior Laying Guide.
- For all other paving (including Rio if preferred), follow Paving Flag Laying Guide.

Paving Flag Laying Guide

Getting Ready

- Avoid rubbing and damage to Flags by carefully stacking them on timber battens with spacers between them.
- Select paving from different packs throughout the job, to blend colour shades.

Laying

- Make up a slightly wet mortar mix of 1 part cement to 5 parts building sand.
- A PVA, SBR or equivalent bonding agent can be added to the mortar to assist bonding, particularly with natural stones. Alternatively coat the back of each flag with neat wet cement and bonding additive just before laying.
- Prepare a full bed of mortar ahead of each Flag, approximately 25mm thick, but allowing for the variation in thickness between Flags.
- Tap the Flag down to the required level, keeping a piece of softwood between hammer and slab.
- If the Flag will not level with several gentle taps, lift it, adjust the level of the mortar bed and relay the Flag.
- Draw mortar up to the sides of each Flag before laying adjacent to it. This minimises pointing later on.
- Keep checking levels and gradient across a number of slabs. Stringlines can be helpful to define levels and lines within the laying pattern.

- Maintain the correct joint width by gently shuffling with a trowel. Small pieces of timber are useful as temporary spacers.
- If you need to cut Flags, a power tool with a suitable diamond tipped cutting disc will cut accurately through our products.

After Laying

- Do not walk on the paving for at least 24 hours.
- During wet or frosty weather, cover the paving for protection until mortar has cured.
- Then point as soon as possible.

Pointing

- Use a damp mortar mix of 1 part cement to 4 parts building sand.
- Press firmly onto the joints to produce a dense, impervious surface that will drain water across the paving.
- If mortar gets onto the faces of the Flags, clean off immediately using a damp sponge frequently rinsed in clean water.
- Jointing sands and other pervious materials are not recommended except where paving is laid with minimal joints. Stonemarket will not accept responsibility for contaminations/staining incurred from use of manufactured jointing compounds.
- Where minimal joints are recommended, these should be 2-3mm and filled with a kiln dried jointing sand. But jointing is not recommended for any of our products.

Driveways

Our Pavior ranges are specifically designed for high performance in areas used by domestic vehicles. However, many of our customers prefer the look of Flagstones and Millstone Flag, Trustone (Fieldland, Glenmoor and Fellstyle) and Vintage Stone Manor have been used successfully. Extra care with the foundations is essential. Lay the Flags directly onto a 100mm thick wet concrete bed (1:5 cement: sharp sand) on top of 150mm well compacted hardcore. Damage can be caused by heavy and four wheel drive vehicles, or by using power steering whilst stationary.

Specific Advice

(i) CONCEPT PAVING

Lay Concept paving onto a full mortar bed. Drystone, Pebble and Ammonite slabs have a specially shaped edge that closely interlocks with minimal joints. These joints should be filled by brushing in our Pavior Jointing Sand. Except where they abut the other textures, Concept Riven slabs should have 10mm joints pointed with mortar in the normal way.

(ii) TRUSTONE, VINTAGE STONE, MARKETSTONE

Always lay larger face upwards. Coating the back of each Flag with neat wet cement and PVA additive just before laying, will assist bonding.



(iii) TRAVERTINE, TRUSLATE GREEN, ARCTIC GRANITE (except MIDNIGHT)

These products sometimes absorb colour from Ordinary Portland Cement. We strongly recommend substituting White Cement in the mortar and adding a PVA, SBR or other bonding agent. Lay Arctic Granite with the textured slip resistant face upwards.

(iv) REVOLVE FEATURE

This should be dry laid before final positioning on mortar bed, starting from the centre outward.

Indoor Use

All of our products can be used indoors as well as outdoors. For indoor use, a coating is preferred to reduce dusting and make cleaning easier.

Use Around Swimming Pools

Advice from Stonemarket should be sought about suitability for use of products around swimming pools.

Coatings/Sealants

Make sure paving is completely dry and free of efflorescence before applying any coating. Responsibility for the performance of any coating rests with the user and the manufacturer of the coating. Always read the instructions carefully and first test a small area for colour and slip resistance, wet and dry. For further advice refer to our sales office.

Pavior Laying Guide

For PermeaPave see page 137.

Edge Restraint

- Paviors must be surrounded by a firm edge restraint to stop the blocks and sand layer from creeping.
- Kerbs are usually best, but walls, decorative edgings or the paviors themselves can also be used as restraints.
- Lay the restraint on a concrete bed, haunching kerbs or edgings in concrete and allow to cure and strengthen before any vibration.

Screeding

- Screed out a layer of coarse concreting sand to a depth of 65mm on the excavated area and within the edging.
- Compact the sand with a plate vibrator.
- Add more sand and screed off to give a firmly compacted thickness of 50mm. (One tonne of sand covers about 8m².)

Laying

- Start from a corner or long edge and proceed along one laying face. Place individual blocks vertically onto the sand bed according to the pattern.
- It is important to mix blocks from several packs to achieve a good blend of shades.
- Use stringlines and adjust the width of joints to within 2.5mm to ensure the lines in the pattern remain straight.

Cutting

- To fill gaps along edges, cut the blocks using a hammer and bolster chisel.
- For a lot of cutting, use a mechanical block splitter or power cutter with an appropriate blade.
- Avoid cutting and laying blocks less than a quarter of their original size.

Vibrating

- Using a stiff broom, brush bedding course sand over the paviors to partially fill the joints and ensure stability during initial vibration.
- After ensuring the surface is clean, vibrate the paving to settle the sand in the joints.
- Top up the joints with our Pavior Jointing Sand. Sweep the surface and then pass the vibrator over the whole area several times to level the paviors.
- Brush more Pavior Jointing Sand over the area to ensure all joints are topped up and make one more pass with the vibrator. The paving is then ready for immediate use.
- RENAISSANCE, and PENNON
We recommend using a rubber mat when vibrating to protect undulating surfaces.

Specific Advice

(A) RIO PAVING

- Not suitable for vehicles. Do not use a vibrator on top of the paving. Level off with a paver's maul.

(B) RENAISSANCE PAVIORS

- Wider top joints need special consideration for permanent filling. Refer to our website or sales office.

(C) ELEMENTAL PAVIORS

- May benefit from the use of spacers during installation. Refer to our sales office.

Wall Building Guide

Key points before you start

- Get professional advice if you are in any doubt, particularly with walls over 1.5m high and complex or stress carrying structures.
- Plan the wall and draw a design; this helps with calculating quantities and makes building quicker.
- Get the right tools; spade, concrete mixer, trowel, spirit level, club hammer, 60-120mm bolster chisel, stringline and pointing tool.

A firm foundation is essential

- Walls need a concrete foundation three times wider than the thickness of the wall. Its depth should be at least 100mm with the base 300mm below ground level.
- For walls over 1m high the foundation base depth should be one third of the height of the wall above ground.

Construction

- Single skin walls 100mm thick should not be higher than 1m and need 215mm square piers every 2m.
- Walls over one metre high should be double skin construction, with the two skins tied together and should have support pillars at least every 3m.
- All walls need provision for expansion and contraction about every 6m.
- Protect the top of the wall with copings and pier caps or suitably sized paving slabs.

Bricklaying, Mortar & Joints

- Use normal bricklaying techniques including damp proof courses where appropriate.
- Mortar should be 1 part masonry cement to 4 parts soft bricklayers sand.
- Mix bricks/blocks from different packs to ensure a blend of shades. If using just one pack, select from the top down.
- With raised planters and retaining walls, leave some vertical joints un-mortared for drainage.
- Raised pools require a waterproof liner and a design that will support the weight of water.

Rio Walling (pages 12, 13)

- Whilst Rio Walling can be built using normal mortar we recommend the use of Marshalls M-Fix walling adhesive.

Millstone Walling (pages 23, 25)

- Blocks are faced on one side and both ends.
- Use almost equal quantities of all six block sizes to create an authentic antique look. One block of each size will build 0.19 sq. m. of single skin wall.
- N.B. Block lengths are in the ratio of 1: 1¼: 1½. A 215mm block used to tie the skins together provides a half module and the appearance of a fourth length.
- Lay in random courses using blocks of different lengths but the same height in each course.
- Use 10mm mortar joints and bond the blocks by staggering vertical joints.
- Alternate course heights of 65mm and 140mm, though not strictly.
- To avoid a top heavy look, place extra 140mm courses near the base and extra 65mm courses near the top.
- For added interest, Cottage Garden Bricks may be substituted for 215 x 65mm blocks.

Yorkstone Walling (pages 34, 37)

- Walls up to 12 courses high that are not subject to load can be built semi-dry by using dabs of mortar within the indentations on top of each block.
- Walls over 12 courses high should have full mortar joints and normal construction techniques.

Cotstone Walling (page 43)

- Carefully mix the various profiles.
- Rake out mortar joints to same depth as the moulded joints to achieve the appearance of continuous random natural stone.

Carluke Walling (page 42)

- Each block is faced on a minimum of one length and one end.
- After the wall is built and the mortar has set firm, clean the blocks with a hose to reveal the full colour.

Vintage Stone Walling (page 66, 87, 93)

- Before commencing to build, blocks should be sorted to enable blocks of similar height to be laid in the same course.
- As Vintage Stone is a natural stone product, block height can vary. The ends of the blocks are dressed at an angle.

Health & Safety

Mixing Mortar

Dry or damp cement and wet concrete or mortar can cause irritation and burns to the eyes and skin. Suitable eye protection and PVC gloves should be worn. If contact with the eyes or skin occurs, irrigate or wash off with plenty of water. If irritation or burning persists, seek immediate medical attention.

Cutting

Using high speed cutters on concrete and stone products produces dust. If inhaled in excessive amounts over a long period this may cause long-term health problems. Suitable safety goggles and a dust mask should be worn.

Manual Handling

Most of our products are abrasive and heavy, some are very heavy. Appropriate handling precautions include wearing protective gloves and footwear and obtaining assistance when moving items weighing over 20kg.

Safety Data Sheets

Available by calling 024 7651 8700.
www.stonemarket.co.uk/healthandsafety

Maintenance

- Keep pavior and minimal joints well filled with Pavior Jointing Sand.
- Pressure washers and chemical cleaners are not recommended, particularly for reconstituted stone, natural limestone and Arctic Granite Midnight.
- To clean, wet thoroughly with lukewarm soapy water and use a stiff hard broom.
- Never use common salt to de-ice reconstituted stone or limestone. Alternative products are available, specially formulated for this purpose.

Acknowledgements

Andrew Crace, furniture p92. Barlow Tyrie, furniture p17, 19, 56, 103. Cadix, furniture and containers p96. David Austin Roses. David Goode, bronze sculpture p77. Gloster, furniture p61, 104. Neptune Classics, furniture p26. Ruth Moilliet, allium sculpture p58. Whichford Pottery, containers and flowerpots p14, 16, 23, 88, 92, 99. Kitstone, furniture p18, 30. David Harber, sculpture p32, sundial p68. Barbed, furniture p52. Pavilion Rattan, furniture p62. Summit, furniture p2, 50, 52.

General Information

Dimensions

All dimensions given are nominal and subject to manufacturing tolerances. The quoted sizes and coverage of our paving ranges, except where using minimal joints, are for the overall areas including appropriate joints, making it easier for you to plan a project and order the right quantities. For precise dimensions, measure several product samples at a stockist.

Colours

Variations in colour shade occur in all Stonemarket products. While the colours shown in this brochure are as accurate as reprographic processes allow, it is essential that you see actual materials at your local stockist before choosing. This is particularly important with natural stone products where considerable variation occurs. Our reconstituted stone products contain natural aggregates so we cannot guarantee that products made at different times will have identical shades. When using several packs, mix products from each pack to achieve a blended overall appearance.

Weathering

Weathering and site conditions can occasionally cause variations in shade to appear. All concrete products in their early life can exhibit efflorescence which may appear as a white deposit and/or apparent colour fading and/or drip staining. Differential weathering can also cause patchy dark discolourations on the surface of individual units. Both conditions will generally diminish over time and will not affect long term performance. Natural stone may develop shaded marking, deposits or patches as mineral content oxidises.

All products can develop algae and organic growths under certain environmental conditions and may require cleaning. Stonemarket cannot accept responsibility for any of the above conditions

Terms and Conditions

We are continually making innovations and improving products so we reserve the right to vary designs and specifications without notice. In the unlikely event of products reaching you in less than satisfactory condition, please notify the retailer immediately. Please note that if you lay a product with a defect apparent prior to laying, then we may not accept responsibility for costs incurred. While every effort has been made to give sound advice, Stonemarket cannot accept responsibility for any loss, damage or injury sustained in following it. We cannot accept any liability if products are used for purposes other than those for which they were intended, or if damage is due to not following our advice. All instruction given is for guidance purposes; building regulations should be followed at all times

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