RETAINING WALLS

style and function
Our range of coloured, standard and premium masonry and natural stone products have set a new standard in quality and style.

By adding oxides and coloured sands to our mix of raw materials, we produce products with contemporary colours, textures and appeal.

Ideal for a range of projects from a modern beach residence to impressive commercial projects Austral Masonry has an array of products to suit your style.

Our concrete retaining walls and pavers are created by blending fine sand, cement, aggregate and quality colouring agents to produce unique coloured blocks. Our range of stone products are quality controlled and only the finest samples offered for projects of distinction.

Part of the Brickworks Building Products Group, one of Australia’s largest and most innovative building product manufacturers, Austral Masonry is part of a group of manufacturers which includes other industry leading brands such as Austral Bricks, Bristile Roofing, Austral Precast and Auswest Timbers.
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RETAINING WALL RANGES

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Inspired by design

Cover Image: Heron Charcoal
Top right: Keystone Almond
Bottom right: Heron Sydney Blend
These light weight blocks provide an easy way to create a practical outdoor space to your garden. The clean sharp lines provide a contemporary finish that will be the envy of the street.

**APPLICATIONS**
- Maximum wall height: 600mm
- Straight walls
- Corners
- Steps
Hawkesbury Yellow Nougat Paperbark Charcoal

Left Corner
Size: 350L x 200W x 150H mm
Weight (each): 13kg

Right Corner
Size: 350L x 200W x 150H mm
Weight (each): 13kg

Standard Unit
Size: 300L x 200W x 150H mm
Weight (each): 12.8kg
Face Area: 22.2 units per m²
From creatively designed paths and courtyards, to naturally textured garden retaining walls, the Valleystone system offers a versatile design, enabling curves to be built with ease, as well as stairs and straight walls.

**APPLICATIONS**
- Maximum wall height: 800mm
- Steps
- Straight walls
- Curved walls
- Minimum circle: 22 Blocks based on 1m radius, 12 blocks based on 570mm radius
- Minimum Radius: Top course: 570mm, Bottom course: 1000mm
- Corners
Applications

Maximum wall height: 800 mm

Steps
- Straight walls
- Curved walls

Minimum radius:
- Top course: 570 mm
- Bottom course: 1000 mm

Corners
- Angled Unit
  - Size: 295L x 203W x 125H mm
  - Weight (each): 13 kg
  - Face Area: 27.1 units per m²

- Straight Sided Unit
  - Size: 295L x 203W x 125H mm
  - Weight (each): 14.9 kg
  - Face Area: 27.1 units per m²

Nougat
Hawkesbury Yellow
Charcoal
MORETON
accentuate your outdoor area

With one enticing blend and three contemporary monotone colours, Moreton retaining wall blocks will complement any landscape with a unique and timeless appeal. High quality and robust in nature, Moreton Retaining Wall Blocks are easy to install and require minimal maintenance. Moreton is used in a mortarless dry stack retaining wall system.

Applications
Maximum wall height: 1,200 mm* (3 m when engineered)
Straight walls
Curved walls
Steps
*Please check with your local council in regards to engineering requirements.
Limestone Oak Charcoal Sydney Blend

Standard Unit
Size: 390 L x 200 W x 200 H mm
Weight (each): 18.5 kg
Face area: 13 units per m²

Capping Block
Size: 390 L x 200 W x 200 H mm
Weight (each): 22 kg
Blocks per lineal metre: 2.56
Hayman retaining wall blocks offer a smooth finish with options to suit contemporary colour schemes. Their simple design, mortarless interlock, and manageable weight means you can lay them yourself and enjoy a retaining wall which is virtually maintenance free.

**Applications**
- Maximum wall height: 1,200 mm* (3 m when engineered)
- Straight walls
- Curved walls
- Corners
- Steps

*Please check with your local council in regards to engineering requirements.
Limestone Oak Charcoal

**Standard Unit**
Size: 390 L x 245 W x 198 H mm
Weight (each): 24 kg
Face area: 13 units per m²

**Universal Corner**
Size: 160 L x 360 W x 198 H mm
Weight (each): 17.2 kg

**Capping Unit**
Size: 390 L x 245 W x 90 H mm
Weight (each): 16 kg
2.56 per lineal metre
Depending on what suits your overall desire, one thing is certain Heron retaining wall blocks have the colour and finish for all landscaping projects. They are structurally sound and are perfect for the ‘do it yourself’ weekend warrior. Heron blocks require no mortar and are virtually maintenance free.

**Applications**
- Maximum wall height: 1,200 mm*
- (3 m when engineered)
- Straight walls
- Curved walls
- Corners
- Steps
- Min radius: Approx 1,200 mm

*Please check with your local council in regards to engineering requirements.
Limestone Sandstone Brisbane Blend Sydney Blend Oak Charcoal

**Standard Unit**
Size: 390 L x 245 W x 198 H mm  
Weight (each): 24 kg  
Face area: 13 units per m²

**Corner Block**
Size: 160 L x 360 W x 198 H mm  
Weight (each): 20 kg  
Available in right and left

**Capping Unit**
Size: 390 L x 245 W x 75 H mm  
Weight (each): 14 kg  
2.56 per lineal metre
The Sydneystone blocks are available in two colours and our standard split face finish with chamfered edges at the top and both sides. Whether your building a straight or curved wall, Sydneystone offers a great solution for a clean and contemporary vertically stacked retaining wall.

Applications
Maximum wall height: 1,000 mm * (3 m when engineered)
Straight walls
Curved walls
Corners
Steps
Min radius: Approx 1,200 mm

*Please check with your local council in regards to engineering requirements.
Nougat
Charcoal

Standard Unit
Size: 390 L x 245 W x 198 H mm
Weight (each): 21 kg
Face area: 13 units per m²

Corner Block
Size: 140 L x 340 W x 198 H mm
Weight (each): 20 kg
Available in right and left

Capping Unit
Size: 390 L x 245 W x 90 H mm
Weight (each): 16 kg
2.56 per lineal metre

style and function
The Keystone retaining wall system is robust and strong, and available in standard and flushface finishes. This product is ideal for both straight and curved walls and features a patented interlocking pin connecting system that is best suited for engineered walls up to 15m in height.

Applications
Maximum wall height: 1,200 mm *
(15 m when engineered)
Straight walls
Curved walls
Corners
Steps
*Please check with your local council in regards to engineering requirements.
Natural Almond Charcoal

**Standard Unit**
Size: 455 L x 315 W x 200 H mm
Weight (each): 38 kg
Face area: 11 units per m²

**Flushface Unit**
Size: 455 L x 315 W x 200 H mm
Weight (each): 41 kg
Face area: 11 units per m²

**Capping Unit**
Size: 455 L x 310 W x 100 H mm
Weight (each): 20 kg
2.2 per lineal metre

**Flushface Straight Side Cap**
Size: 455 L x 310 W x 100 H mm
Weight (each): 20 kg
2.2 per lineal metre

**Corner Unit 90°**
Size: 440 L x 210 W x 200 H mm
Weight (each): 41 kg
Magnumstone product is a large block, hollow core, wet-cast segmental retaining wall system. The wet-cast manufacturing process provides the units with high strength, low absorption and great freeze/thaw performance. Tapered sides make it easy to build tight curves and straight walls with complete accuracy. Magnumstone's vertical and horizontal hollow core, can be filled with clear crushed gravel to provide added weight, an excellent wall drainage system and a superb connection with the geosynthetic reinforcements.

**Applications**
- Maximum wall height: 20 m
- Straight walls
- Curved walls

*Above: Magnumstone Natural*
<table>
<thead>
<tr>
<th>Style</th>
<th>Size</th>
<th>Weight (each)</th>
<th>Face area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Natural Standard Base Unit</strong></td>
<td>1219 L x 610 W x 610 H mm</td>
<td>602 kg</td>
<td>0.74 units per m²</td>
</tr>
<tr>
<td><strong>Natural Standard Unit</strong></td>
<td>1219 L x 610 W x 610 H mm</td>
<td>621 kg</td>
<td>0.74 units per m²</td>
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<tr>
<td><strong>Natural Standard Top Unit</strong></td>
<td>1219 L x 610 W x 610 H mm</td>
<td>553 kg</td>
<td>0.74 units per m²</td>
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<tr>
<td><strong>Natural Standard Corner/End Unit</strong></td>
<td>711 L x 102 W x 610 H mm</td>
<td>154 kg</td>
<td>0.434 units per m²</td>
</tr>
<tr>
<td><strong>Natural Half High Base Unit</strong></td>
<td>1219 L x 610 W x 305 H mm</td>
<td>328 kg</td>
<td>0.37 units per m²</td>
</tr>
<tr>
<td><strong>Natural Half High Unit</strong></td>
<td>1219 L x 610 W x 305 H mm</td>
<td>340 kg</td>
<td>0.37 units per m²</td>
</tr>
<tr>
<td><strong>Natural Half High Top Unit</strong></td>
<td>1219 L x 610 W x 305 H mm</td>
<td>312 kg</td>
<td>0.37 units per m²</td>
</tr>
</tbody>
</table>
Austral Masonry retaining wall blocks are an ideal choice for retaining walls in gardens, other residential applications and commercial projects. The interlocking and dry stacked nature of these, makes them easy to install for the “Do It Yourself” landscaper. No matter what the project, the result is always an attractive and low maintenance retaining wall. The flexibility of the system provides tremendous scope, from edging to terraces, straight walls to curves.

**Note:** Please consult with regulating council for local design requirements prior to the commencement of any retaining wall. Councils may request walls over 1m in height and / or where a surcharge exists (e.g. driveway, house, fence or other structure) be designed and certified by a suitably qualified consulting engineer.

**Your Checklist**
- String line
- Tape measure
- Walling units
- Compaction tool
- Shovel
- Spirit level
- Wheel barrow
- Agriculture drain pipe
- Pegs or stakes
- Broom
- Gloves & eye protection
- Mitre saw (to cut blocks if req’d)
- 10-20 mm crushed stone
- Crushed rock (for base)
Step 1: Permits
Check with your local council to ensure all local Building Codes are complied with.

Step 2: Foundation
The foundation material shall be compacted by several passes of a mechanical plate vibrator. Where there are significant variations of foundation material or compaction, soft spots, or where there is ponding of ground water, the material shall be removed, replaced and compacted in layers not exceeding 150 mm. Trenches shall be dewatered and cleaned prior to construction, such that no softened or loosened material remains.

Step 3: Bearing Pad
The facing shall be built on a bearing pad, not less than 150 mm thick and 300 to 600 mm wide, consisting of one of the following options:

- Compacted road base
- Compacted crushed rock, well-graded and of low plasticity (without clay content), compacted by a plate vibrator;
- Cement-stabilized crushed rock, with an additional 5% by mass of cement thoroughly mixed, moistened and compacted by a plate vibrator; or
- Lean-mix concrete with a compressive strength of not less than 15 MPa.

Step 4: First Course
Spread 25 mm of crusher dust with an additional 5% by mass of cement over the compacted base. The first course is now bedded into the crusher dust. The use of a level and string line is recommended to ensure the first course is laid correctly. Ensure each block is also well filled with free-draining material (eg. crushed rock aggregate / blue metal). For walls up to 1 metre high, make sure at least 100 mm of the first-course blocks are buried below the finished ground level. Allow 200 mm for walls over 1 metre high and up to 3 metres high. These walls will need to be engineered.

Step 5: Drainage and Back Fill
Place 100 mm diameter agricultural pipe with geotextile sock behind the wall, with a 1 in 100 fall. Backfill behind the courses of blocks to a width of 300 mm using 10-20 mm free draining material (eg. crushed rock aggregate / blue metal). Ensure each block is also well filled with free-draining material.

Backfill behind the drainage layer with selected backfill material in a maximum of 200 mm layers. Compaction rate of 95% must be achieved (use only hand operated plate compactors within 1 metre from the back of the wall). Do not use expansive clays to backfill. Be careful not to mechanically compact too close to the wall.

Step 6: Laying Additional Courses
Clean any debris from the top of the wall to ensure the next block sits perfectly. Ensure each block is filled with free draining material, and place next course on top. Place the drainage material behind the blocks to 300 mm. Stack units, placing drainage aggregate and compact backfill for each block layer until the wall is complete. For Heron and Hayman walls it is recommended that you break 20-30% of the back 'wings' off to allow backfill material to lock into the block wall.

Step 7: Capping Units
Once backfilling and cleaning is completed as per Step 5 and Step 6 fix the purpose made Capping Blocks with a flexible adhesive.

Step 8: Maximum Wall Height
This information should be viewed as a guide only.
The particular circumstances of retaining wall projects vary significantly in ways that often dictate the use of particular materials and techniques to address challenges presented by those circumstances. Austral Masonry recommends you to ensure that you obtain appropriate professional advice tailored to your circumstances before commencing retaining wall projects.

MAX. wall heights noted in good soils (gravels, crushed stone, etc)

*Heron, Hayman and Moreton can be built up to 3m when designed by a suitably qualified engineer and combined with soil reinforcement or no fines concrete.
Contact your local Austral Masonry representative for more information.

Notes: Please consult with regulating council for local design requirements prior to the construction of any retaining wall. Councils in general require that retaining walls be designed and certified by a suitably qualified engineer where the wall is over 0.5m in height and/or where there is a surcharge loading, such as a driveway, house or other structure near the wall.
# RETAINING WALL

**information**

<table>
<thead>
<tr>
<th>Product</th>
<th>Range</th>
<th>Description</th>
<th>Max Wall Height*</th>
<th>Size</th>
<th>Weight</th>
<th>Coverage</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrinastone</td>
<td>Standard Unit</td>
<td>600mm</td>
<td>300L x 200W x 150H</td>
<td>12.8kg</td>
<td>22.2 Blocks per m²</td>
<td>Straight Walls, Corners, Steps</td>
<td></td>
</tr>
<tr>
<td>Arrinastone</td>
<td>Right Corner</td>
<td>-</td>
<td>350L x 200W x 150H</td>
<td>13kg</td>
<td>N/A</td>
<td></td>
<td>Straight Walls, Corners</td>
</tr>
<tr>
<td>Arrinastone</td>
<td>Left Corner</td>
<td>-</td>
<td>350L x 200W x 150H</td>
<td>13kg</td>
<td>N/A</td>
<td></td>
<td>Corners</td>
</tr>
<tr>
<td>Heron</td>
<td>Standard Unit</td>
<td>1,200 mm* 3m with engineering</td>
<td>390 L x 245 W x 198 H mm</td>
<td>24 kg</td>
<td>13 Blocks per m²</td>
<td>Curved Walls, Straight Walls, Corners, Steps</td>
<td></td>
</tr>
<tr>
<td>Heron</td>
<td>Corner Block</td>
<td>-</td>
<td>160 L x 360 W x 198 H mm</td>
<td>20 kg</td>
<td>Available in left or right</td>
<td>Curved Walls, Straight Walls, Corners, Steps</td>
<td></td>
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<tr>
<td>Heron</td>
<td>Capping Unit</td>
<td>-</td>
<td>390 L x 245 W x 75 H mm</td>
<td>14 kg</td>
<td>2.56 Blocks per lineal metre</td>
<td>Curved Walls, Straight Walls, Corners, Steps</td>
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<tr>
<td>Valleystone</td>
<td>Angled Unit</td>
<td>800mm*</td>
<td>295L x 203W x 123H</td>
<td>13kg</td>
<td>27.1 Blocks per m²</td>
<td>Curved Walls, Straight Walls, Corners</td>
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<tr>
<td>Valleystone</td>
<td>Straight Sided Unit</td>
<td>-</td>
<td>295L x 203W x 123H</td>
<td>14.9kg</td>
<td>27.1 Blocks per m²</td>
<td>Curved Walls, Straight Walls, Corners</td>
<td></td>
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<tr>
<td>Sydneystone</td>
<td>Wall Block</td>
<td>1000mm*</td>
<td>390L x 245W x 198H</td>
<td>21kg</td>
<td>13 Blocks per m²</td>
<td>Curved Walls, Straight Walls, Corners, Steps</td>
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<tr>
<td>Sydneystone</td>
<td>Corner Block</td>
<td>-</td>
<td>340L x 140W x 198H</td>
<td>20kg</td>
<td>N/A</td>
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<td>Curved Walls, Straight Walls, Corners, Steps</td>
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<tr>
<td>Sydneystone</td>
<td>Capping Block</td>
<td>-</td>
<td>390L x 245W x 90H</td>
<td>16kg</td>
<td>2.56 Blocks per lineal metre</td>
<td>Curved Walls, Straight Walls, Corners, Steps</td>
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</table>
## RETAINING WALL INFORMATION

<table>
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<tr>
<th>Product</th>
<th>Range</th>
<th>Description</th>
<th>Max Wall Height</th>
<th>Size</th>
<th>Weight</th>
<th>Coverage</th>
<th>Applications</th>
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<tbody>
<tr>
<td>Hayman</td>
<td>Standard Unit</td>
<td>1,200 mm* 3m with engineering</td>
<td>390 L x 245 W x 198 H mm</td>
<td>24 kg</td>
<td>13 Blocks per m²</td>
<td>Curved Walls, Straight Walls, Corners, Steps</td>
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<tr>
<td>Hayman</td>
<td>Universal Corner</td>
<td>-</td>
<td>160 L x 360 W x 198 H mm</td>
<td>17.2 kg</td>
<td>Universal - can be used for left and right corners</td>
<td>Curved Walls, Straight Walls, Corners, Steps</td>
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<tr>
<td>Hayman</td>
<td>Capping Unit</td>
<td>-</td>
<td>390 L x 245 W x 90 H mm</td>
<td>16 kg</td>
<td>2.56 Blocks per lineal metre</td>
<td>Curved Walls, Straight Walls, Corners, Steps</td>
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<tr>
<td>Keystone</td>
<td>Standard Unit</td>
<td>1200mm**</td>
<td>455L x 315W x 200H</td>
<td>38kg</td>
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<tr>
<td>Keystone</td>
<td>Flushface Unit</td>
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<td>455L x 315W x 200H</td>
<td>41kg</td>
<td>11 Blocks per m²</td>
<td>Corners</td>
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</tr>
<tr>
<td>Keystone</td>
<td>Capping Unit</td>
<td>-</td>
<td>455L x 310W x 100H</td>
<td>20kg</td>
<td>2.2 per lineal metre</td>
<td>Curved Walls, Straight Walls, Corners</td>
<td></td>
</tr>
<tr>
<td>Keystone</td>
<td>Flushface Straight Side Cap</td>
<td>-</td>
<td>455L x 310W x 100H</td>
<td>20kg</td>
<td>2.2 per lineal metre</td>
<td>Curved Walls, Straight Walls, Corners</td>
<td></td>
</tr>
<tr>
<td>Keystone</td>
<td>Corner Unit 90°</td>
<td>-</td>
<td>440L x 210W x 200H</td>
<td>41kg</td>
<td>N/A</td>
<td>Curved Walls, Straight Walls, Corners</td>
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<tr>
<td>Moreton</td>
<td>Standard Unit</td>
<td>1200 mm</td>
<td>390L x 200W x 200H</td>
<td>18.5 kg</td>
<td>13 Blocks per m²</td>
<td>Curved Walls, Straight Walls, Steps</td>
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<tr>
<td>Moreton</td>
<td>Capping Unit</td>
<td>-</td>
<td>390L x 200W x 200H</td>
<td>22 kg</td>
<td>-</td>
<td>Curved Walls, Straight Walls, Steps</td>
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<tr>
<td>Magnumstone</td>
<td>Standard Unit</td>
<td>20m+**</td>
<td>1219L x 610W x 610H</td>
<td>621 kg</td>
<td>-</td>
<td>Curved Walls, Straight Walls,</td>
<td></td>
</tr>
</tbody>
</table>

Please contact your Austral Masonry representative for more information.

*Maximum wall heights in good soils (gravels, sandy gravels, crushed sandstone).

* Heron, Sydneystone and Hayman can be built up to 3m when designed by a qualified engineer and combined with soil reinforcement or No Fines concrete.

** Keystone and Magnumstone can be built up to greater heights when designed by a qualified engineer and combined with soil reinforcement.

Please contact your Austral Masonry representative for more information.
Please Note: Backfill should be no higher than the top of the retaining wall.

* Heron and Hayman can be built up to 3m when designed by a suitably qualified engineer and combined with soil reinforcement or no fines concrete. Contact your local Austral Masonry representative for more information.
RETAINING WALL

cross sections

Valleystone/Moreton

Please Note: Backfill should be no higher than the top of the retaining wall.

Keystone

* Keystone can be built up to 15m when designed by a suitably qualified engineer and combined with soil reinforcement or no fines concrete. Contact your local Austral Masonry representative for more information.
1. Stock colours. Colours other than stock colours are made to order. Contact your nearest Austral Masonry office for your area's stock colours. A surcharge applies to orders less than the set minimum quantity.

2. Colour and texture variation. The supply of raw materials can vary over time. In addition, variation can occur between product types and production batches.

3. We reserve the right to change the details in this publication without notice.

4. For a full set of Terms & Conditions of Sale please contact your nearest Austral Masonry sales office.

5. Important Notice. Please consult with your local council for design regulations prior to the construction of your wall. Councils in general require those walls over 0.5m in height and/or where there is loading such as a car or house near the wall be designed and certified by a suitably qualified engineer.

6. Max wall heights disclaimer. The gravity wall heights are maximum heights calculated in accordance with CMAA MA-53 Appendix D guidelines and a qualified engineer should confirm the suitability of the product for each application. As such, due consideration must be given to but not limited to: Cohesion. Dry backfill, no ingress of any water into the soil behind the retaining wall. All retaining walls are designed for zero surcharge unless noted otherwise. These walls are intended for structure Classification A walls only as defined in AS4678 Earth Retaining Structures as being where failure would result in minimal damage and/or loss of access.