

Low Carbon V and W blocks

Latest Developments

Aquacast International, in cooperation with, Rural Industries, Colas group IOM, Sita IOM and the IOM Department of Waste Management DOI, have all collaborated in the successful development of an Aquacast low carbon W block, and we have extended this manufacturing to cover our full range of slabs, curbs and V blocks. The blocks are now manufactured and stored in large quantities by Rural Industries, Douglas, IOM, and other manufacturers throughout the UK, please contact Aquacast for your nearest manufacturer.

Each W Block comprises 10% of refined incinerator bottom ash, mixed with 90 % concrete aggregate and steel reinforcement to produce a robust cast which meets all BS specifications required for building regulations.

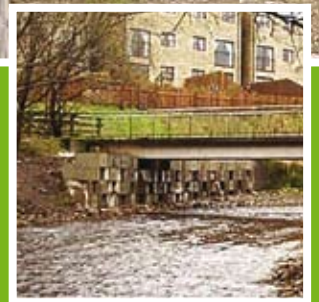
Our block designs, construction methods and the material mix are all unique to Aquacast. Our construction method has distinct advantages over other systems, as we are the only precast-system that offers an instant piling option. This not only ensures a greater stability when constructed, but also means the excavation of a foundation trench is not always required. Our blocks are also produced in a range of sizes and finishes to suit any requirement. The unique shape of the blocks make this type of construction easy, fast and versatile for a wide range of uses.

Some of its applications

- Fast and urgent Flood defences.
- Instant structures or demountable buildings.
- River, lakes and canal bank reinforcement - replacing sheet piling and sand bags.
- Land slide stabilization replacing sheet piling.
- Instant Structural support replacing underpinning.
- Landscape gardening, Instant ponds or lakes, Instant retaining walls.
- Fast erecting of Conservatories, Garages, Sheds and Barns.
- Sea defence.
- Traffic partition walls with reflecting cat eyes.

By using our blocks and construction process, you not only help carbon reduction, but are also supporting recycling, which in turn helps support your local economy. Our system has being described in an ABI publication, to be both "ingenious and versatile".

Our blocks have gone Green



Left & Top, 1 meter W Blocks retaining wall at the start of construction. wall completed at Rural Industries Douglas Union Mills IOM.

Centre Right, V Blocks reinforcing river embankment and supporting the Bridge at the River Diggel, Oldham.

Bottom right, W Block traffic partition wall saving lives at the main entrance car park entrance Hilton Hotel Douglas IOM.

Versatile...

Some of the situations where the V and W blocks can be used.

Traffic Application

This simple, yet ingenious system can be made very economically, and offers contractors considerable useful versatility.

The adaptability of the system makes it suitable for both permanent or temporary installations as it can, if required, be easily disassembled, making it ideal for traffic partitioning both permanent or temporary.

It's unique design allows more blocks to be added to as required or can be dismantled and relocated without wastage of materials.

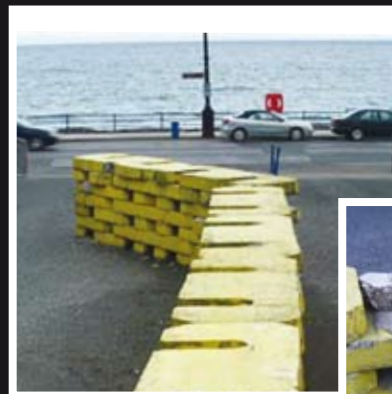
It has been shown especially effective in situations where pedestrian safety is at risk by drivers not observing road markings.

System offers

- Imposing barrier for drivers.
- Absorbs impact.
- Minimises damage to vehicle.
- Long lasting.
- Can be supplied with or without reflecting cat eyes.
- Traffic islands.
- Traffic roundabouts.
- Sand barrier wall.



This is an 8 year Old demountable W cast wall, Hilton hotel and palace cinema main road entrance Douglas IOM.



These pictures show an interlocking demountable W Cast wall after an impact.



Wall straightened after collision.

Retaining Walls

A powerful and structurally sound option for retaining walls for both coastal and river erosion.

System offers fast assembly for

- Land slide stabilization.
- Instant piling option giving strong structural support.
- Retaining walls.
- Sea defence.
- Foundation not always necessary.



1000 400x85mm low carbon W blocks used to halt erosion on a river bank at Injebreck Reservoir IOM.



1000mm V Blocks constructed speedily to stop land slide and support a bridge in an environmentally sensitive location at the River Diggel in Oldham, Lancashire.



One meter W Blocks retaining wall for an access road.

Cost effective

River Defence

Very quickly and easily assembled - these blocks are ideal for sub toe fast response emergencies requiring strength and durability.

Flood risk assessment & defences

- River and canal bank-reinforcement.
- Embankment restructuring / back filled.
- Easily constructed into curves to accommodate the bends in a river.
- Shoreline or riverbank groyne construction.
- Sea defence.
- Quickly erected - speedily backfilled.
- Flumes / Weirs.

Ideally the construction is back filled to ensure integrity, or scalplings can be used to accommodate drainage making the blocks a good option for Flood Risk Assessment and management.



Low carbon W Blocks used as a rapid flood defence method in river bank enforcement.



Gardening & Patio

For use in the garden you can let your imagination run wild... You can inset custom solar lighting into the spaces in the blocks for an illuminated patio or barbecue area - pack the spaces with soil to encourage plant growth for an attractive wall garden, or just enjoy the clean functional lines of the original.

Our W Blocks are now made and stocked in large quantities, and come in various finishes ready for any use you wish.

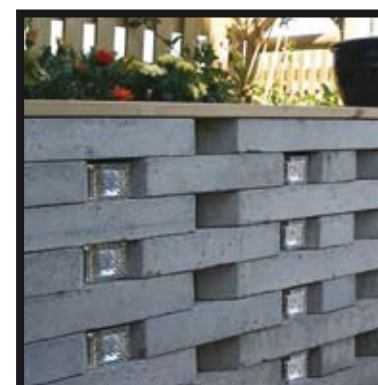


Larger W Blocks at the works



Ideal for

- **Instant ponds and lakes**
- **General landscape gardening**
Split level / Steps / Retaining walls
- **Raised flower beds**
- **Wind screens**
- **Partitioning areas**
Utilities / Bins / Compost
- **Fast erection of Conservatories, Garages, Sheds and Barns.**



Instant W block wall
Left, showing solar lighting for patio
Right, with interlocking troughs.



Efficient

Larger Constructions

Aquacast is currently in a joint development with Guard-All™ who are innovative building solutions LLC engineers, an innovative company that specialise in the manufacturing and installation of a wide variety of steel-framed structures, clad with your choice of sophisticated building materials.

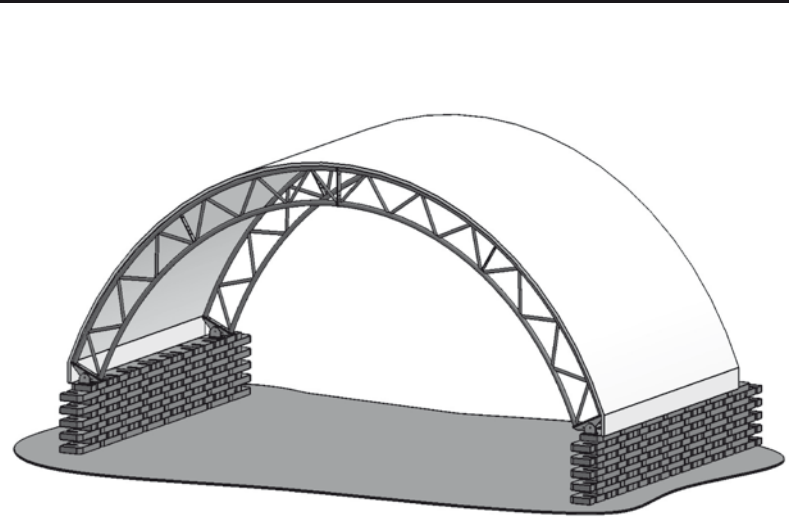
The joint development utilises the strength and versatility of our blocks, as one of the options for the wall / base structure that the roofs will be locked to.

Guard-All™ is ideal for larger buildings such as

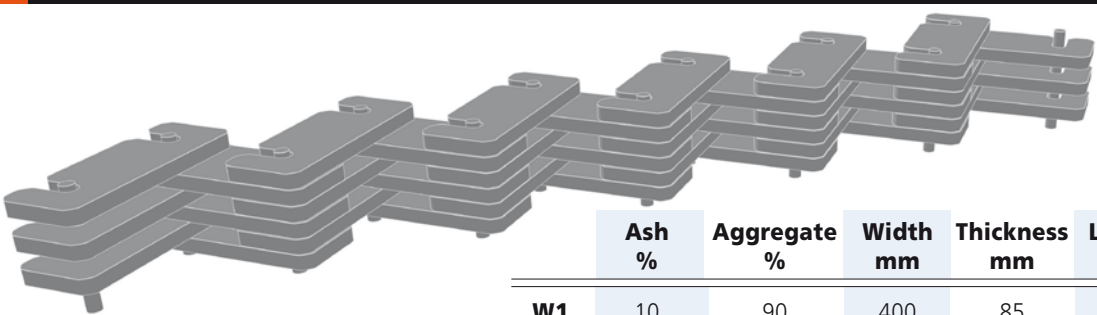
- Warehouses.
- Aircraft hangers.
- Commodities storage facilities.
- Barns and covered animal pens.
- Athletic Facilities.
- Water Treatment Plant.
- Equine Facility.
- Dairy Facility.
- Temporary shelter after natural disasters.

If you have a requirement for a larger structure, be it a shade or weather protection structure, an architectural icon, equestrian centre, athletic facility, aircraft hangar or shade, remediation facility or even a commodities storage structure please get in touch and we will advise you and put you in contact with Guard-All™ directly.

The structures are designed for both temporary and permanent applications, and can be deployed anywhere in the world.



These Guard-All versatile structures can be left open for shade and weather cover, or be part or fully enclosed. The steel roofing can be clad in a variety of materials including Shadesure®, Woven HDPE, PVC and PTFE panels.

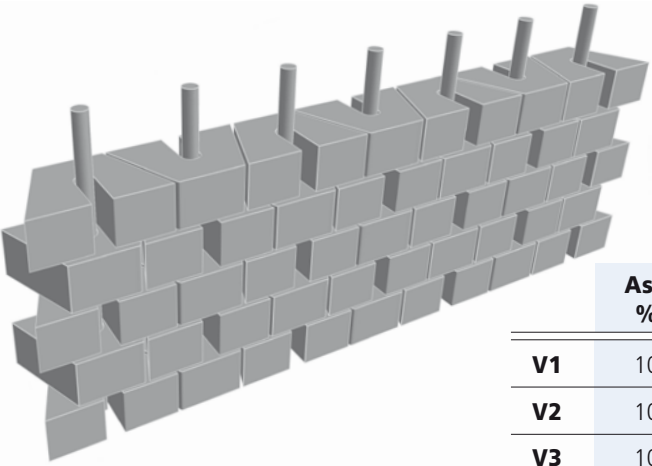


W Blocks

Simple Principal

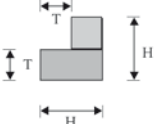
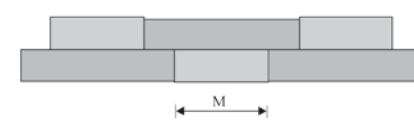
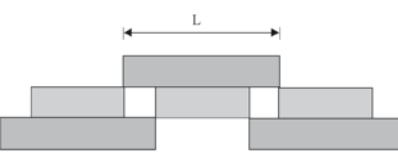
Showing W & V blocks assembly with interlocking action, allowing piling or filling to take place.

	Ash %	Aggregate %	Width mm	Thickness mm	Length mm	Weight kg	Compression Test LB/sq//
W1	10	90	400	85	995	60	55
W2	10	90	400	100	800	57	55
W3	10	90	600	100	1200	142	55
W4	10	90	800	120	1600	316	55-56



V Blocks

	Ash %	Aggregate %	Width mm	Thickness mm	Length mm	Weight kg	Compression Test LB/sq//
V1	10	90	400	85	400	21	55
V2	10	90	500	100	500	42	55
V3	10	90	600	120	600	81.5	55
V4	10	90	1000	500	1000	.65 ton	55



Curb Blocks

	Ash %	Aggregate %	Width mm	Thickness mm	Length mm	Weight kg	Compression Test LB/sq//
C1	10	90	350	100	1000		55
C2	10	90	400	100	1000		55
C3	10	90	350	100	1500		55
C4	10	90	400	100	1500		55



1000 mm x 400mm x 85mm
Low Carbon Stock In various
finishes ready for use.

We are here to
help & advise with
any projects you
may have in mind

We are here to help, advise, design and recommend free of charge.

If you need any help with your construction, we have experienced, authorised contractors who will undertake any installation you require - no matter how large or small it is - and both our work and product are supported by full insurance guarantees.

We are also happy to advise on project design and product selection, provide expertise and training to all departments interested in stock-piling for emergency applications such as floods, landslides and sea-defence.

Our system is demountable and can be reused over and over again without material wasting, or can be rigidly fixed for as long as required.

For all product or project enquiries please contact our support team.

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Support

If you require any further technical details that are not included in this publication or if you would like to arrange an initial site inspection please contact us immediately.

Sales and Technical Enquiries.

Member of the International Erosion Control Association (MIECA)

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