

EKHO

INFRASTRUCTURE
SOLUTIONS

RETAIN-
A-ROCK



RETAIN-A-ROCK™ GRAVITY BLOCK RETAINING WALL SYSTEM

A true gravity block segmental retaining wall system

A new horizon of infrastructure possibilities

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FEATURES AN ENGINEERED HOLLOW CORE THAT
MAKES INSTALLATION AS EASY AS IT LOOKS.

A Smarter Interlocking Retaining Wall System That Holds Up Under Pressure.

A gravity segmental retaining wall relies on...you guessed it – gravity to hold it in place. This means that the entire wall system needs to support itself, while also combating elevated pressure from eroding soil.

All that exerted pressure on the wall usually requires equally dense materials to hold it in place. But with a smarter engineered system, you can achieve the same mass distribution with a lighter material. This is great news for the hardworking folks building the wall.

WHAT IS RETAIN-A-ROCK™?



Retain-A-Rock™ is a true gravity block segmental retaining wall system. Cast in a National Precast Concrete Association (NPCA) certified manufacturing plant, each block is produced to the highest quality CSA-certified standards. Utilizing the strength of concrete, our blocks are designed with a unique hollow core, allowing for gravel infill and a built-in perforated drainage system. This optimizes freight costs and the advantages are endless once the blocks arrive onsite.

APPLICATIONS:

Whether you are building a temporary or permanent retaining wall, our in-house engineering services will help you design for any range of geotechnical challenges.

Our experience ranges from:

- Bridge Abutments & Wingwalls
- Culverts
- Roadway Expansions
- Erosion Control / Shoreline Protection
- Waste Transfer Stations or Other Industrial Sites
- Residential or Commercial Developments
- Temporary Shoring

BENEFITS:

FOR THE ENGINEER

- An engineered wall solution from concept-to-completion.

FOR THE WALL INSTALLER

- Lightweight material means easier to work with and no crane to unload and place.
- Self-aligning blocks ensure a straight-forward installation with no unforeseen challenges.
- Job is completed faster with fewer rocks to place and easier for the crew to maneuver.

FOR THE PROPERTY OWNER

- Cost savings to have the wall built in quick turnaround.
- No surprises - Gets exactly the wall expected.
- Peace-of-mind with long-term performance.

FOR THE COMMUNITY

- A clean, aesthetically-pleasing wall.

INSTALLATION:

STEP 1 – INSTALL BASE

Install wall base of either 300mm thick 19mm clear stone or 250mm of 'A' gravel topped with 50mm of sand. Grade the base paying careful attention to level.

STEP 2 – INSTALL BOTTOM COURSE BLOCKS

Swing in bottom course blocks with a machine that is rated for as little as 6,000lbs. Verify blocks are level to each other. Install block infill.

STEP 3 – INSTALL NEXT COURSE BLOCKS

Swing in the next course of blocks, utilizing the integrated alignment feature. Install block infill. Repeat to desired height.

STEP 4 – MORE BACK FILL

Wall back fill should step along with each course. Wall toe materials should be placed as soon as possible.

STEP 5 – INSTALL TOP MATERIALS

Install final grading materials behind 8" step in top blocks. Install handrail/fencing as required directly on top of exposed block.

RECOMMENDATIONS:

- Base can be 250mm of 'A' gravel topped with 50mm of sand for easier grading.
- Infill is 19 mm clear stone
- 8 ft. level
- Plate tamper for base and backfill consolidation

SPECIFICATIONS:

Each 2.23 sq metre (24 sq ft) precast concrete block is produced in a quality mould and formed to maintain precise accuracy – which means you can have peace-of-mind knowing what is showing up on site is exactly what is expected.

Relying on its mass of up to 5,800 lbs. per unit, the interlocking connection between the blocks means that there is no need for integrated mechanical tie backs for walls up to 3.66m (12 feet) high. Mechanical tie back systems are available for walls that exceed 3.66m (12 feet) high or for sites that have soil conditions, or added surcharge loads, that require tie back systems.

DESIGN DETAILS:

- 2 – 12 ft wall height without geogrid; 12ft+ heights when using geogrid
- Large modular block sizes [2.44m long (8’ft) x 0.917m high (3’ ft)]

FULL BLOCK (A)



HEIGHT	917 mm	3’-0”
WIDTH	2,440 mm	8’-0”
WEIGHT	2,495 kg	5,500 lbs.
AREA OF FACE	2.23 m ²	24.0 ft ²
TOTAL VOLUME OF FILL	1.30 m ³	46.0 ft ³

FULL HEIGHT/HALF WIDTH BLOCK (HA)



HEIGHT	917 mm	3’-0”
WIDTH	1,220 mm	4’-0”
WEIGHT	1,134 kg	2,500 lbs.
AREA OF FACE	2.23 m ²	24.0 ft ²
TOTAL VOLUME OF FILL	0.58 m ³	20.5 ft ³

TOP FULL BLOCK (TA)



HEIGHT	917 mm	3’-0”
WIDTH	2,440 mm	8’-0”
WEIGHT	2,358 kg	5,200 lbs.
AREA OF FACE	2.23 m ²	24.0 ft ²
TOTAL VOLUME OF FILL	0.86 m ³	30.4 ft ³

HALF BLOCK (A.5)



HEIGHT	457 mm	1’-6”
WIDTH	2,440 mm	8’-0”
WEIGHT	1,202 kg	2,650 lbs.
AREA OF FACE	1.15 m ²	12.4 ft ²
TOTAL VOLUME OF FILL	0.39 m ³	13.8 ft ³



LESS WORK
LESS EQUIPMENT
LESS TIME
MORE SAVINGS
MORE HAPPY CLIENTS

BUILD FASTER

- Build-up & out of water faster with larger blocks
- Repair ground stability by building the upper grade faster

BUILD SMARTER

- Bigger than smaller format blocks, but not as large as armour stone (easier to maneuver)
- Installed with anything that can lift 3,000 kgs (no cranes or telehandlers!)



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