

TIMELESS BEAUTY

Experience Old-World Charm on a Grander Scale...

KEYSTONE

Century Wall™



KEYSTONE
RETAINING WALL SYSTEMS

RETAINING EXCELLENCE

Introducing



KEYSTONE

Century Wall™

Crafted specifically for taller wall structures and heavy-loading conditions, the Keystone Century Wall System offers the distinctive appearance and character of a random-pattern, natural stone wall with the structural integrity, performance, and the environmental friendliness of concrete.

The three different-sized Keystone Century Wall System units give the appearance of classic, hand-crafted stone, yet make it fast and almost effortless to create visually stunning and heavy-duty wall structures. The Keystone Century Wall System is perfect for residential, commercial, industrial, and institutional applications.

Keystone Century Wall System is also easy to install, and utilizes a unique, patented fiberglass pin connection method for added structural integrity and performance. The open-core design of the Keystone Century Wall System units allow for additional facial stability and interlocking capacity. In large-scale and tall wall applications, Keystone Century Wall System offers the design freedom to create curves, corners, serpentine and near-vertical walls, tiers and more.

Keystone Century Wall is the ultimate wall system to handle the big jobs with beauty and brawn. Offering a quaint and old-world appearance while providing superior strength, Keystone Century Wall Systems rise to heights greater than 40 feet, with proper soil reinforcement.*

*For walls over 3.0 feet in height, soil reinforcement is generally necessary. A qualified engineer should be consulted for design and analysis of structures.

Features & Benefits

PATENTED PIN SYSTEM

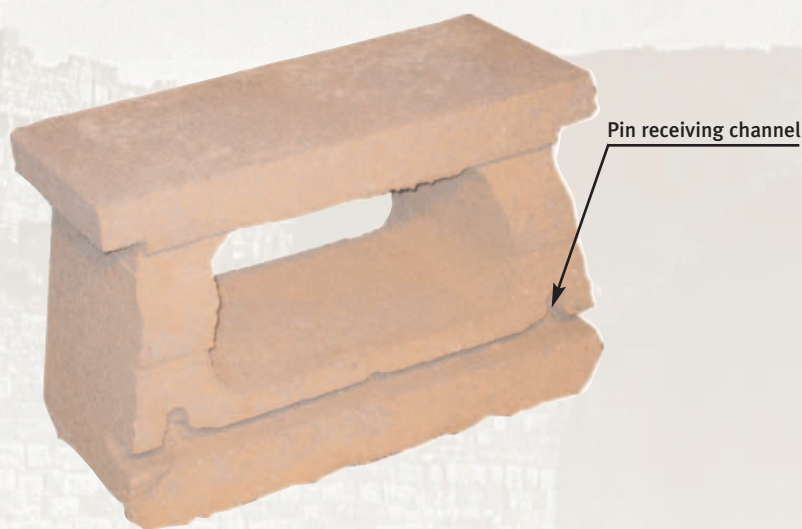
- The Keystone Pin System uses high-strength fiberglass pins for shear resistance, alignment, and geogrid connection.

VARIOUS ALIGNMENT OPTIONS

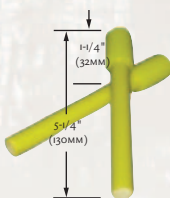
- The open core design of Keystone Century Wall allows unit drainage fill to interlock the units together, providing facial stability and additional confinement of geogrid reinforcement.

SIMPLICITY OF CONSTRUCTION

- Larger unit dimensions are the appropriate scale for tall wall construction.
- These rugged and random-sized high-strength concrete modules have the color and texture of natural stone.

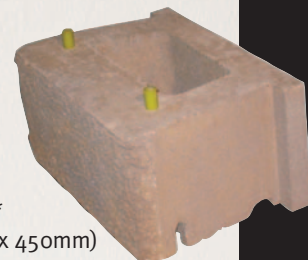


Fiberglass Pins with "Shouldered" Element
 High-strength Pultruded Fiberglass
 5 - 1/4" (130mm) total length
 1 - 1/4" (32mm) shoulder length
 1/2" (13mm) diameter at pin shaft
 3/4" (20mm) diameter at shoulder
 ASTM 4475-85 short beam shear = 6,400 psi (44 kPa)



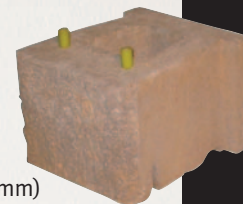
LARGE UNIT

93 lbs. (42 kg)
 8" h x 12" d x 18" w*
 (200mm x 300mm x 450mm)



MEDIUM UNIT

58 lbs. (26 kg)
 8" h x 12" d x 11" w*
 (200mm x 300mm x 280mm)



SMALL UNIT

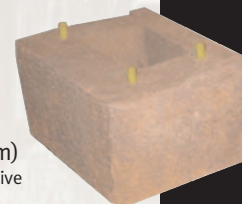
37 lbs. (17 kg)
 8" h x 12" d x 7" w*
 (200mm x 300mm x 180mm)



90° CORNER UNIT

(two sides textured) Corner units provided in left/right sets

78 lbs. (35 kg)
 8" h x 12" d x 16" w*
 (200mm x 300mm x 400mm)
 Note: Check with local representative for unit availability.



CAP UNIT

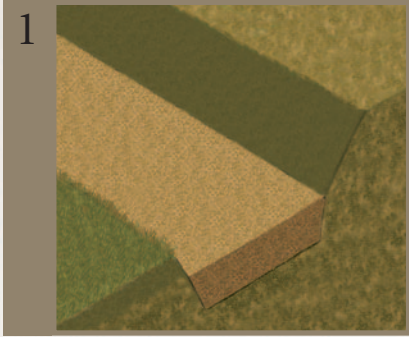
(two sides textured)
 30 lbs. (14 kg)
 4" h x 12" d x 14" / 8" w*
 (100mm x 300mm x 355mm/200mm)



* Product colors may vary from those shown in this brochure. Unit dimensions, weight, and color may vary by region.

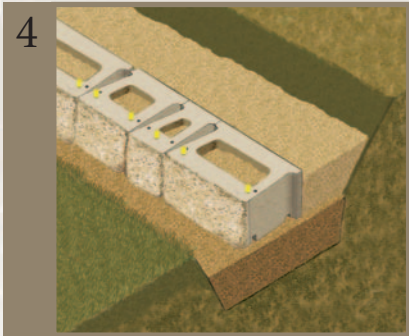
Installation Steps

PREPARE THE BASE LEVELING PAD



Remove all surface vegetation and debris. Do not use this material as backfill. After selecting the location and length of the wall, excavate the base trench to the designed width and depth. Start the leveling pad at the lowest elevation along wall alignment. Step up in 8.0-inch (200mm) increments with the base as required at elevation changes in the foundation. Level the prepared base with 8.0 inches (200mm) of well-compacted granular fill (gravel, road base, or 1/2-inches to 3/4-inches (10 - 20mm) crushed stone). Compact to 95% Standard Proctor or greater. Do not use PEA GRAVEL or SAND for leveling pad.

INSTALL DRAINAGE FILL, BACKFILL & COMPACTION

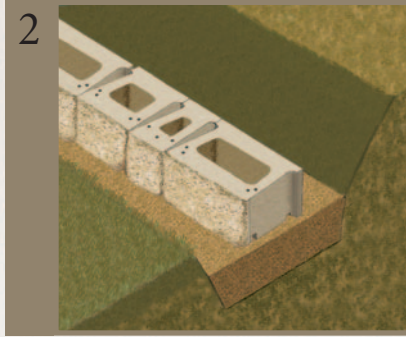


Once the pins have been installed, provide 1/2-inches 3/4-inches (10-20mm) crushed stone drainage fill behind the units to a minimum distance behind the tail of 1.0 foot (300mm). Fill all open spaces between units and open cavities/cores with the same drainage material. Proceed to place backfill soil in maximum 8.0-inch (200mm) layers and compact to 95% Standard Proctor with the appropriate compaction equipment. Note: Do not run heavy (ride-on) compaction equipment within 3.0 feet (1m) of back of wall. Don't use pea gravel or sand drainage for fill.

GENERAL NOTES

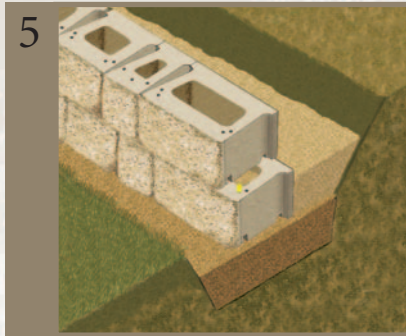
- Verify unit type, size, weight availability by region. Units may vary up to 1.0 inch \pm (25mm) due to texture variations.
- Remove any excess concrete slag from pin holes and receiving channel as required to assemble wall. During manufacturing, some concrete crumbs may deposit in these areas and should be removed to permit pins to be placed in the appropriate holes and receiving channels.

INSTALL THE BASE COURSE



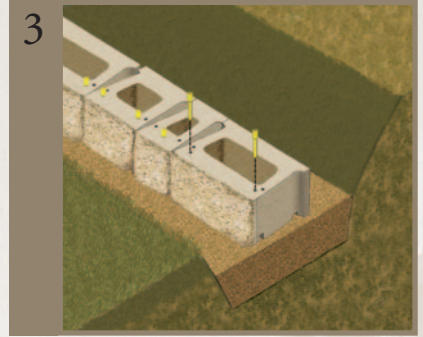
In a random arrangement, place the first course of Keystone Century Wall units end to end (with front corners touching) on the prepared base. The surface of the unit with the long groove (receiving channel) near the front face of the unit should be placed down and the open pin holes should face up, as shown. Make sure each unit is level - side to side and front to back. Leveling the first course is critical for accurate and acceptable results. For alignment of straight walls, use a string line positioned along the unit pin holes for accuracy. Minimum embedment of base course is 8.0 inches (200mm) below grade. Typical face embedment to be H/20.

INSTALL ADDITIONAL COURSES



Place the next course of Keystone Century Wall units over the fiberglass pins, fitting the pins into the long receiving channel recess in the units above. Push/pull the Century Wall units toward the face of the wall until the channel makes full contact with the pins. Each course should be built in a random arrangement with the only rule of thumb being to avoid vertical joint alignment. (i.e. stack bonding)

INSERT THE FIBERGLASS PINS



Place the shouldered fiberglass pins into the appropriate holes to achieve the desired setback position of the Keystone Century Wall units. Place pins in the front most hole(s) for near vertical alignment or the holes nearest the embankment for a 8.8° setback per course.

CAPPING THE WALL



Clean off the last course of Keystone Century Wall in preparation for the cap or coping to finalize the wall. With units dry and clean, use Keystone Kapseal construction adhesive or the equivalent for a mechanical bond. Install the Keystone Century Wall capping unit, architectural precast concrete, or cut stone as a coping element. Cap may be flush or overhanging as required by aesthetics and design.

- Cut or split units as required (with a mason saw, hydraulic break or chisel and hammer) wherever units need to be altered to allow construction to be finalized.
- When cutting concrete units, always wear safety goggles, gloves, and filter mask per manufacturer's recommendations.

Structural Features

POSITIVE MECHANICAL CONNECTION

The Keystone patented pin system provides dependable strength where it's needed most. High-strength fiberglass pins provide built-in alignment for the Keystone Century Wall System and ensure that each unit is securely interlocked within the wall face. In addition, this unique retaining wall system allows for a mechanical connection with geogrid soil reinforcement, securing its placement between units and allowing for proper tension and maximum efficiency of the geogrid.



PRODUCT DESIGN

The Keystone Century Wall unit design provides important features needed, but not always found in, a segmental retaining wall. The center core area of Keystone Century Wall provides an open cell in which unit drainage fill is placed adding weight, facial stability and additional interlock for each wall module. This gravel fill provides a critical function as a drainage filter which helps alleviate hydrostatic pressure and assists in locking the geogrid within the wall face. The patented Keystone pin system allows for the options of near vertical construction or an 8.8° batter/setback when aesthetics or structural requirements demand.

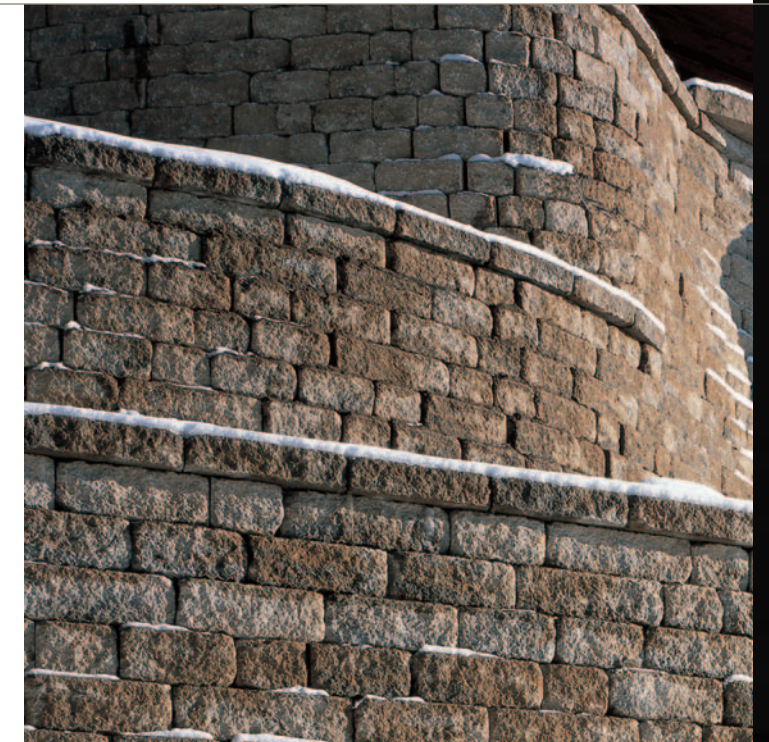


RANDOM UNIT PLACEMENT

The Keystone Century Wall random-patterned appearance provides the look of hand-crafted, natural stone with the design and construction advantages found in the Keystone pin-connected retaining wall systems. Four different facing units — 8.0 inches in height with varying widths from 7.0 inches to 18.0 inches—are randomly placed within the structure, to give Keystone Century Wall the character of natural stone. All Keystone Century Wall units are 12.0 inches deep providing the stability required for constructing taller wall structures.



Old-World Charm on a Grander Scale...



RETAINING EXCELLENCE

RETAINING EXCELLENCE