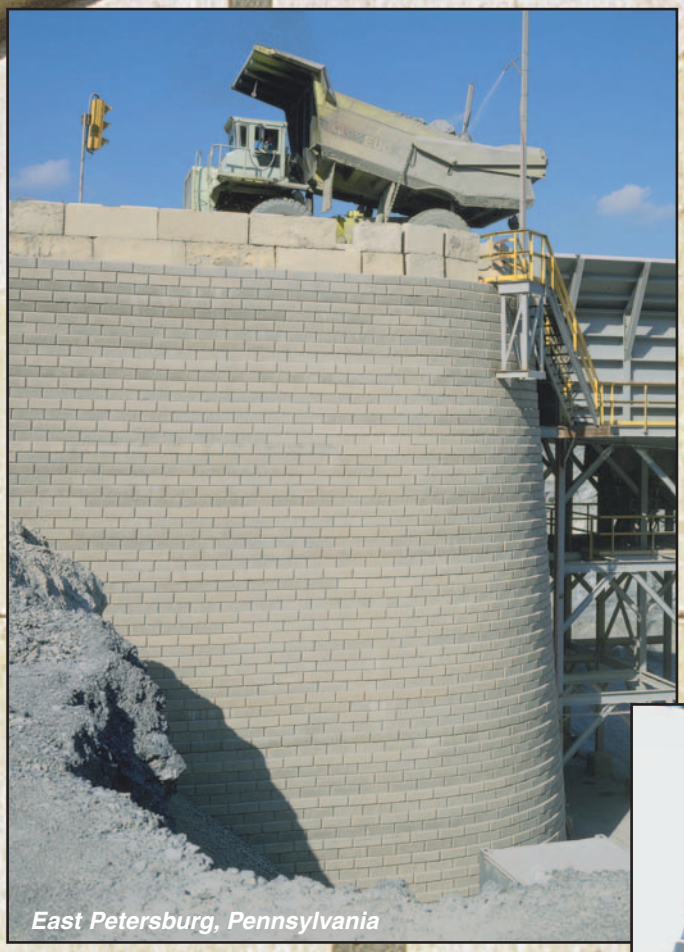
BRUTE®

Retaining Wall System



East Petersburg, Pennsylvania

- ***Outstanding Construction Stability***
- ***Fast, Mechanical Installation***
- ***Solid-Unit Durability***
- ***No Mortar or Concrete Footings***
- ***Vertical Walls, Tall Walls...***

St. Charles, Missouri

Quality Products from

VERSA-LOK®
Retaining Wall Systems

VERSA-LOK®

BRUTE® Retaining Wall System

VERSA-LOK BRUTE is an *enormous* advance in mortarless segmental retaining walls. Its massive design incorporates the features of smaller segmental units and introduces significant new cost savings. These savings result from BRUTE's large coverage area, speed of installation, and its ability to achieve greater heights without use of soil reinforcement.

BRUTE Unit Specifications

(Actual unit color, size, and weight may vary slightly by region.)

Height:	8 inches	(203.2 mm)
Width (face):	24 inches	(609.6 mm)
Width (rear):	21 inches	(533.4 mm)
Depth:	18 inches	(457.2 mm)
Face Area:	1.33 foot^2	(.124 m^2)
Volume:	1.875 foot^3	(.053 m^3)
Weight:	240 lbs.	(108.9 kg)
Weight/Face Area:	180 lbs./foot^2	(878.2 kg/m^2)

BRUTE is ideal for:

Unreinforced walls up to eight feet in height*

Limited access sites and sites where large excavations are undesirable or impractical

Vertical retaining walls

Walls subject to impact in areas such as parking lots or industrial sites

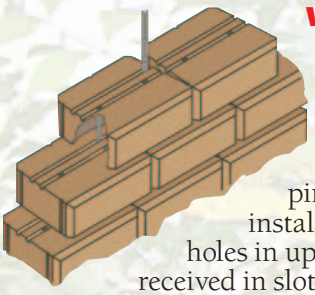
Shoreline applications

Oakdale, Minnesota

BRUTE walls are mortarless, free-draining systems and do not require concrete footings for construction. Walls are installed on shallow, granular leveling pads – even in climates that experience freeze/thaw cycles.

BRUTE units are installed in pairs using a special clamp attached to a backhoe or similar lifting device. Non-corrosive VERSA-TUFF BRUTE pins provide quick unit alignment. Wall courses may be aligned vertically or set back three inches from adjacent lower courses. By mixing course setbacks, a wide variety of wall cants and aesthetic effects may be achieved.

* Maximum height for an unreinforced, three-inch setback BRUTE wall in granular soils is eight feet. Individual site, soil, and loading conditions may limit unreinforced wall height to less than eight feet.



VERSA-TUFF® BRUTE Pins

Holes and grooves molded into units accept VERSA-TUFF BRUTE non-corrosive nylon/fiberglass pins. As wall courses are installed, pins are inserted through holes in uppermost course units and are received in slots of adjacent lower course units. Pins interlock units and help provide consistent alignment. Grooves in units permit vertical or three-inch setback alignment.

Advantages of the BRUTE Retaining Wall System

Outstanding Construction Stability

Each BRUTE unit weighs approximately 240 pounds – significantly more than other retaining wall units. Because of this characteristic, BRUTE walls can be constructed to heights up to eight feet without using soil reinforcement. Elimination of soil reinforcement may lower project costs and substantially reduce the amount of excavation necessary during construction. BRUTE walls are frequently chosen for walls near property lines, close to existing structures, and on sites where limited disturbance is desirable.

Fast, Mechanical Installation

BRUTE units are quickly installed two at a time using a special lifting clamp. Placement of just two BRUTE units produces nearly three square feet of wall face area. A three-man crew, using standard construction equipment (backhoe, articulating boom, or small crane) can install up to 1000 square feet of wall in a normal work day.

Solid-Unit Durability

Massive BRUTE units are solid concrete and exceed all industry standards for strength and durability. Their solid design offers superior resistance to impacts before, during, and after construction. BRUTE is the ideal choice for many commercial, industrial, agency, and shoreline projects. Unlike other segmental systems, BRUTE solid units have no cores to fill – eliminating additional materials and making it possible to stack three to four courses before backfilling.

No Mortar or Concrete Footings

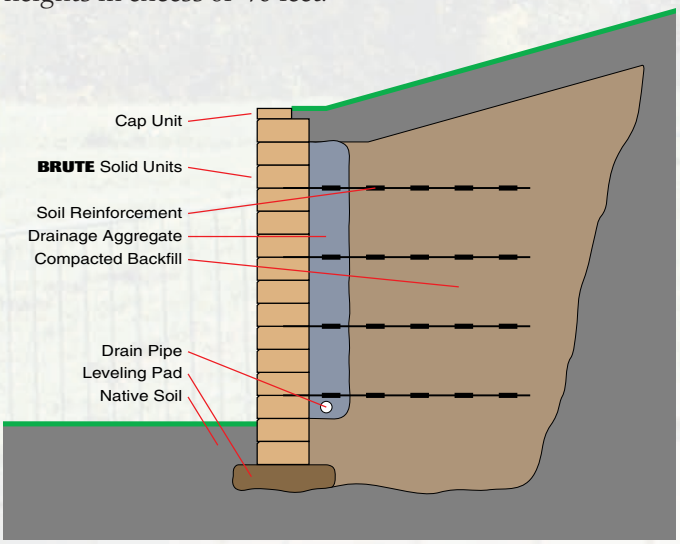
VERSA-LOK BRUTE units are dry stacked on a shallow, granular leveling pad. Even in northern climates, no concrete footings or footings below frost are necessary. As flexible systems, BRUTE walls can tolerate minor earth movement without damage. Mortarless construction also permits water to pass through joints – helping to prevent hydrostatic pressure from forming behind walls.

Vertical Walls, Tall Walls...

BRUTE Retaining Wall Systems have been tested with and easily accommodate all major brands of geogrid soil reinforcement. Properly designed, BRUTE walls may be constructed vertically and to heights exceeding 40 feet. Wall designs can include curves as well as corners and be specified in a variety of attractive colors.

...Because Sometimes Bigger Really Is Better

On many projects, BRUTE retaining walls work purely as gravity systems – unit weight alone provides resistance to earth pressures. Frictional forces between units plus pin connections hold units together so walls behave as coherent structures. When weight of units alone is not enough to resist soil loads, horizontal layers of geosynthetics are used to reinforce soil behind walls. With proper soil reinforcement and design, VERSA-LOK BRUTE walls can be constructed to heights in excess of 40 feet.



This illustration highlights components of a soil-reinforced BRUTE Retaining Wall System. Design and placement of geosynthetic soil reinforcement layers vary with site, soil, and loading conditions. Final project-specific designs should be prepared by a qualified, licensed professional engineer.


Weldon Springs, Missouri


Hanover, Massachusetts

Concrete cap units are available to attractively finish any BRUTE wall.

VERSA-LOK®
Retaining Wall Systems

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VERSA-LOK offers a variety of technical support including in-house engineering assistance and reference literature. Please call us toll-free at (800) 770-4525 with questions or to request **BRUTE Design & Installation Guidelines**.