



MANORSTONE®

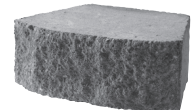


ManorStone® retaining wall blocks offer the versatility and ease-of-use that makes them the ideal landscaping product for a wide variety of projects. Available in radius and flat-face and straight and tapered units. Mix and match units to create visual interest, capping your wall, or create staircases. In addition, the bottom of each unit is scored so that you can easily create half units.

ManorStone is perfect for retaining walls up to 3 feet.

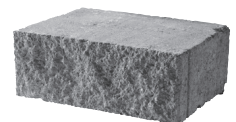
Radius Face

6" x 16" x 12" (15.2 cm x 40.6 cm x 30.5 cm)
(also available w/straight sides)



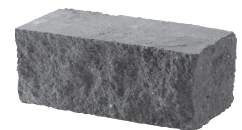
Flat Face

6" x 16" x 12" (15.2 cm x 40.6 cm x 30.5 cm)
(also available w/tapered sides)



Corner Unit

6" x 16" x 8" (15.2 cm x 40.6 cm x 20.3 cm)



Flat Face Tapered Cap Unit†

3" x 18" x 13" (7.6 cm x 45.7 cm x 33 cm)



PRODUCT DATA*

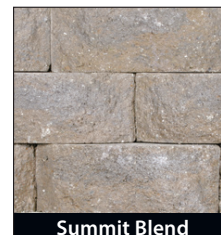
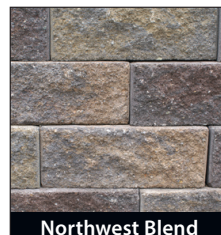
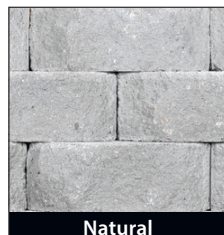
	Coverage	Units / Pallet	Coverage / Pallet	Weight / Piece	Weight / Pallet
Radius Face Tapered-Sides	1.5 pcs / ft ² (16.2 pcs / m ²)	45	30 ft ² (2.79 m ²)	62 lb. (28 kg)	2,840 lbs (1,289 kg)
Radius Face Straight-Sides	1.5 pcs / ft ² (16.2 pcs / m ²)	45	30 ft ² (2.79 m ²)	75 lb. (34 kg)	3,425 lbs (1,554 kg)
Flat Face Tapered-Sides	1.5 pcs / ft ² (16.2 pcs / m ²)	45	30 ft ² (2.79 m ²)	64 lb. (29 kg)	2,930 lbs (1,329 kg)
Flat Face Straight-Sides	1.5 pcs / ft ² (16.2 pcs / m ²)	45	30 ft ² (2.79 m ²)	79 lb. (36 kg)	3,605 lbs (1,636 kg)
Corner Unit	1 pc / ft ²	60	60 ft ²	56 lb. (25.5 kg)	3,410 lbs (1,547 kg)
Cap Unit	0.8 pcs/Ln ft	72	90 Ln ft	45 lb. (20.4 kg)	3,290 lbs (1,493 kg)

All **Weight per Pallet** noted above include a 50 lb pallet weight. Maximum wall height: 3'. Minimum radius: 2' 8".

AVAILABLE COLORS

For more information on custom colors, please contact a Mutual Materials sales representative. Custom colors may be restricted by the size of the order or project.

†Flat Face Tapered Cap Unit is also available in Charcoal.



PROJECT ESTIMATION

NOT TO EXCEED 3'		WALL LENGTH (0.75 units per lineal foot)					
WALL HEIGHT	COURSES	10 ft	15 ft	20 ft	25 ft	30 ft	35 ft
1'	2	15	23	30	38	45	53
1'-6"	3	23	34	45	57	68	79
2'	4	30	45	60*	75	90	105
2' 6"	5	38	57	75	92	113	132
3'	6	45	68	90	113	135	158

*Example: It takes 60 ManorStone to build a wall 20' long and 2' tall.

Blocks needed for 5' 5" diameter circle*		
Wall Height	Courses	Blocks
1'	2	24
1'-6"	3	36
2'	4	48
2' 6"	5	60
3'	6	72

* Diameter becomes smaller as you add courses due to 1" set-back per course. Cutting may be required as the wall gets higher.

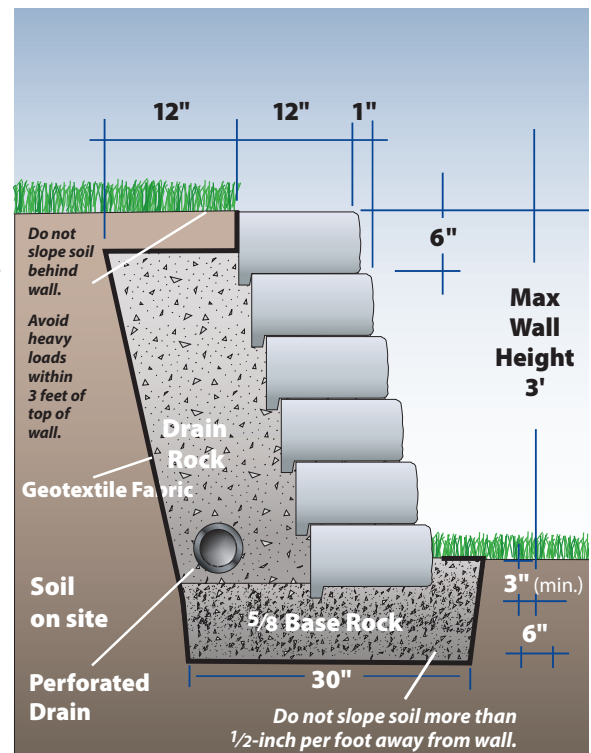
INSTALLATION INSTRUCTIONS

(For more specific and detailed instructions, please contact your Mutual Materials sales representative.)

Maximum gravity wall height: 3'

Minimum radius circle: 2' 8"

- 1. Excavation:** First mark the area of the wall with chalk or spray paint and then string a line. Dig out a trench that is a minimum of 9" (230 mm) deep plus one inch for every foot of wall height. Allow 12" (305 mm) of space behind the wall for $\frac{3}{4}$ " washed drain rock (this means your trench should be 30" wide). Roots and large rocks must be removed from the trench.
 - 2. Base Preparation:** The project requires a perforated drain, cover the back and the bottom of the trench with a geotextile to prevent soil from blocking the drainage system. Measure geotextile fabric with excess length of about 12" (305 mm) at the top of the bank, which will be folded over the completed drainage fill.
 - 3. Foundation:** Install a 4" (102 mm) diameter perforated drain in this foundation and connect it to the existing drainage system. Next, prepare a 6" (152 mm) deep foundation with 58 minus or $\frac{3}{4}$ minus crushed rock. Add 1"–2" of 58 minus or $\frac{3}{4}$ minus crushed rock, rake smooth and compact with plate compactor. Base rock should have a certain amount of moisture content. Repeat steps until final 6" base elevation is achieved.
 - 4. First Course:** Lay the base course of retaining wall blocks. Using a string line at the back of the units for alignment, place units side by side on the gravel checking for level in both directions. Begin laying block at the lowest point of the wall and/or 90° corner. It is easier to start at a straight section of the wall. Complete the base course before proceeding to the second course. Be aware that the blocks have a $\frac{3}{4}$ " set back. When curves are laid out, space the base course block slightly apart to allow for their set back.
- NOTE:** Before installing additional courses, it is recommended that the installer front fills and backfills the first course with base rock and compacts to ensure stability of the wall.



- 5. Second & Additional Courses:** Sweep top of underlying course and stack next course in running bond pattern so the middle of the unit is above the joint between adjacent blocks below. To cut blocks for the ends of the wall or in tight curved sections, use a hammer and chisel to score the unit on all sides. Always wear eye protection when splitting stones. If many cuts are needed, a masonry saw may be the better option.
- 6. Backfilling:** After each course is laid, backfill behind the wall with $\frac{3}{4}$ " washed drain rock. This improves drainage and prevents soil from leaching through the wall face.
- 7. Top Course:** Use concrete adhesive to secure the cap course. Apply the adhesive with a caulking gun. Lay the cap down and press firmly. Finish backfilling behind the wall.

ManorStone® is a registered trademark of Mutual Materials Co.

MUTUAL MATERIALS LOCATIONS

For product information and customer service, call 1-888-MUTUALØ (688-8250).

WASHINGTON		OREGON	IDAHO	MONTANA
Auburn	Port Orchard	Bend	Hayden	Missoula
Bellevue	Spokane	Clackamas		
Bellingham	Tacoma (Parkland)	Durham		
Marysville	Vancouver, WA	Hillsboro		
Olympia (Tumwater)		Salem		

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