

# Holland Series

Holland pavers offer the old-world charm of a simple brick shape combined with the renowned durability of interlocking concrete pavers. Simple in design, Holland pavers are capable of meeting the demands of both architects and engineers for a beautiful, yet durable paving surface. Mutual offers the classic rectangular Holland shape, along with a Half Holland and Double Holland for increased design flexibility.

Holland pavers are perfect for residential, municipal, and commercial applications, including:

- Patios
- Sidewalks
- Terraces
- Bridge abutments
- Pedestrian malls
- Walkways
- Driveways
- Pool decks



## STANDARD SPECIFICATION

Holland Series pavers are manufactured to industry standard specifications ASTM: C 936, and CSA: A 231.2.

## AVAILABLE COLORS

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

### Half Holland

2 3/8" x 3 15/16" x 3 15/16"  
(6 cm x 10 cm x 10 cm)



### Holland

2 3/8" x 7 7/8" x 3 15/16"  
(6 cm x 20 cm x 10 cm)



### Double Holland

2 3/8" x 7 7/8" x 7 7/8"  
(6 cm x 20 cm x 20 cm)

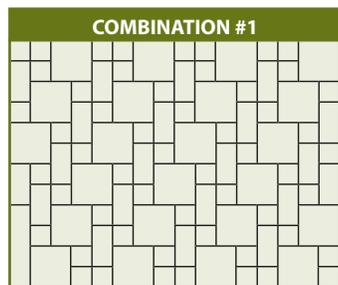


Product	Pieces / ft <sup>2</sup> (m <sup>2</sup> )	Pieces / Pallet	Coverage / Pallet	Weight / Piece	Weight / Pallet
Half Holland	9.29 pcs / ft <sup>2</sup> (100 pcs / m <sup>2</sup> )	972 pcs	104.62 ft <sup>2</sup> (9.72 m <sup>2</sup> )	3 lb (1.4 kg)	2,966 lb (1,346 kg)
Holland	4.63 pcs / ft <sup>2</sup> (50.04 pcs / m <sup>2</sup> )	486 pcs	104.88 ft <sup>2</sup> (9.74 m <sup>2</sup> )	6 lb (2.7 kg)	2,966 lb (1,346 kg)
Double Holland	2.31 pcs / ft <sup>2</sup> (24.86 pcs / m <sup>2</sup> )	216 pcs	93.46 ft <sup>2</sup> (8.68 m <sup>2</sup> )	12 lb (5.4 kg)	2,642 lb (1,199 kg)

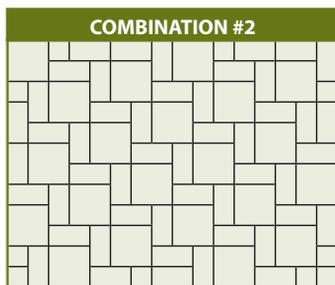
**All Weight per Pallet** noted above includes a 50 lb pallet weight.

\* All metric dimensions are soft converted to Imperial. Dimensions and coverage include 1.5 mm (1/16") joint

## INSTALLATION PATTERNS



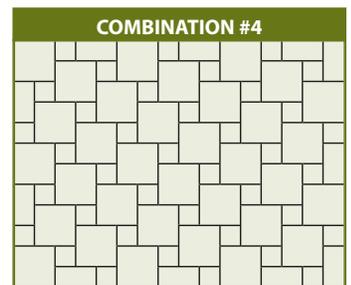
25% Holland, 50% Double Holland,  
25% Half Holland



50% Holland, 50% Double Holland



29% Holland, 14% Half Holland,  
57% Double Holland



80% Double Holland, 20% Half Holland

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

### Materials Needed:

- Base Rock:** 3/4" minus crushed rock  
Residential (pedestrian) 4" thick  
Residential (vehicular) 6"-8" thick  
1 cubic yard = 300 sf @ 1" depth
- Bedding Sand:** Clean, washed (concrete) sand  
1"-1½" depth  
1 cubic yard = 300 sf @ 1" depth
- Joint Sand:** DesignMix Paver Joint Sand (80 lbs bag)

### Necessary Tools for Paver Installation

- ◆ Shovel (flat and pointed)
- ◆ Rake
- ◆ Wheelbarrow
- ◆ Stakes (for setting grade)
- ◆ String lines & line level
- ◆ Hammer
- ◆ Push broom
- ◆ 8' 2 x 4 (strike board)
- ◆ (2) Screed pipes (metal)
- ◆ Tape measure
- ◆ Trowel
- ◆ Garden hose w/spray nozzle
- ◆ Flat Head screwdriver

### Rental Items

- ◆ Plate compactor
- ◆ Masonry saw w/diamond blade

### Safety Gear

- ◆ Safety glasses
- ◆ Ear protection
- ◆ Dust mask (respirator)

**1. Excavation:** Mark area to be paved with stakes and string lines at the desired finished elevation. Locate stakes outside the project area by a minimum of 4". This will allow room for the edge restraint system. Excavate a minimum of 7" below final paver elevation. Allow 1/8" to 1/4" per foot slope for correct water runoff. Slope can be in more than one direction depending on job site circumstances. Water will not penetrate joints unless it is allowed to puddle or remain in an area. Remove any loose soils after excavation is complete.

**2. Base Preparation:** Add a dusting of 3/4" minus rock to the excavated area. This will allow the plate compactor to glide across area without sticking to the sub grade. Compact the entire subgrade with plate compactor. After compacting subgrade, add 1"-2" of 3/4" minus rock, rake smooth and compact. Base rock should have a certain amount of moisture content. Repeat steps until final base elevation is achieved. For a standard 2 3/8" concrete paver, the final base elevation should be 3" below final paver elevation. Remember, the final product will mirror the base elevation. Any deviation in base should be corrected at this time with base rock (not sand).

**3. Bedding Sand:** Bedding sand should be screeded at a depth between 1"-1 1/2". Place 1" rigid pipe below elevation lines and measure down 2" to top of pipes. Place pipes parallel to each other and almost as wide as the strike board (2 x 4). Place sand in between pipes and pull strike board across both pipes. This will allow approximately 1" of sand screeded between the two pipes. Pull pipes out of sand; fill pipe voids with sand and trowel smooth. Do not compact sand bed.

**4. Install pavers:** Depending on the type of paver and pattern, starting points and direction of installation will vary. More times then not, opt for the easiest access with the longest run where no cutting will be made. Also consider more visual areas (i.e. in line

with windows, doors, water features, etc). Pavers should be placed gently onto the sand bed and not pushed into it. Do not hammer set pavers. Setting a string line 3" above setting bed will allow the installer to maintain straight pattern lines. After installing a larger area, place plywood on top of pavers to walk around on. This will distribute weight so individual pavers will not get embedded into sand before adjustments and final compaction is done. Slight adjusting can be accomplished by moving pavers to desired spot by inserting a flat head screwdriver in between pavers and pushing them. Cut pavers can be used to fill any voids in the pattern along the edges. Mix pavers from multiple pallets to achieve a consistent color blend.

**5. Edge Restraint:** Any edge not retained by a solid, rigid structure (i.e. concrete, asphalt, etc) should be contained with a plastic edge restraint system. These are easier to install after the pavers are laid. Using a hose with a spray nozzle, carefully moisten sand bed around perimeter of paver area. This will allow a trowel to remove sand from paver edge without the sand migrating or sloughing away. Place edge restraint system against paver/bedding sand and on top of compacted base rock. Install 10" spikes every 8"-12". Make sure that all edges are contained before compaction of pavers.

**6. Compaction:** Before compaction, check to make sure all lines and patterns are at desired location. Sweep joint sand over entire area to fill paver joints and lock up pattern lines. Sweep excess joint sand off of paver surface. Place plate compactor on pavers and run compactor around perimeter. Then make back and forth runs, slightly overlapping the previous run. Sweep joint sand into joints again. Compact pavers in perpendicular runs to first compaction. When finished, sweep joint sand into paver joints until they are completely full.

*Technical Source:*

*Interlocking Concrete Pavement Institute (ICPI): Tech Spec No. 2, 1999*

## MUTUAL MATERIALS LOCATIONS

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

### Washington

Auburn  
Bellevue  
Bellingham  
Mukilteo  
Olympia (Tumwater)

Port Orchard  
Spokane  
Tacoma (Parkland)  
Vancouver, WA

### Oregon

Bend  
Clackamas  
Durham  
Hillsboro  
Salem

### Idaho

Hayden

### Montana

Missoula



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