

General Building Tips

A Good Start:

A good start is everything. Remember, with a good first and second course layout, anyone can stack these blocks into the wall. An off-level start will only become more pronounced as additional courses are stacked.

Footings:

Haener Block generally uses the same footing size for conventional block. As with any layout, the vertical steel in the foundation fall in the hollow cells of the block. Lay some block and measure from the end of the first end block to the center of the first cell and generally at 16" modules there after.

Snapping a chalk line approximately **every third course** works fine on a flat, smooth concrete slab or foundation for a dry lay. Using line blocks and a tight line for the first course layout is recommended for horizontal and vertical alignment using mortar.

Remember that these blocks go in dry and fast. You don't have mortar or the time to fix your mistakes later. Making any necessary small adjustments early will prevent them from growing into noticeable misalignment further up the wall.

Wet Set:

One of the fastest and easiest ways to lay the first course is to "wet set" it in fresh concrete. When the foundation is poured, a level line is set up by laying a block to the desired height at each end of the wall.

A level stake can also be used. Pull a tight level line between the two level and plumb end blocks and push the first course right into the soft concrete and level and plumb each one to the line. Lay a second course while the concrete is still wet but firm enough to hold the block in place. This is especially good for retaining walls. It keys the first block into the concrete and skips the mortar and trowel layout course work.

Tips on laying the block:

1. Reversing every other course--this does two important things:
 - a) it creates unobstructed vertical columns for unimpeded grout flow, insertion of vibrators, steel, electrical, and plumbing, and:
 - b) evens out height irregularities that might have occurred during manufacturing.

2. Make sure that the closed end side of the block is not back to back with the closed end side of another block. Grout may not fill properly in the space between, possibly allowing wind or moisture to penetrate. This is not as important if you plan to use surface bonding.

3. Check alignment with your eye by sighting down the wall and periodically using a tight string line. Use a framing square on the corners to ensure you are not drifting out of alignment.

4. Keep your block supply close to the wall. The speed with which Haener Block goes into the wall surprises everyone.

Openings:

1. Check door and window frame sizes ahead of time. If you are using steel door jambs, you may want the butted type. The throat size of the steel door frames you are using may change.
2. Always make sure your headers are aligned and well shored to maintain position and alignment.
3. Make sure the windows you want to use fit the openings. Haener block can be cut, like any other block. Select windows that minimize the use of your masonry saw to save time.

Bracing:

You will want to brace the end walls, openings and some wall sections where alignment is critical. Although you are using a dry product, it is still subject to grout pressure or external impact.

Grouting:

1. When grouting and preparing for another lift, make sure you brush down the top of the wall with a stiff brush. The sand and gravel must be removed before starting another course for the next lift.
2. You may grout using a wood funnel trough that slides along the top of the wall if you are lower than the concrete chute.

Finishing:

If you are using a Haener Block with a formed joint, you can leave it or use a slicker to fill the small crack between blocks. If the layout is uneven, use correction wedge tile spacers in the joints where they need filling, approximately **50 spacers per 100 blocks**.

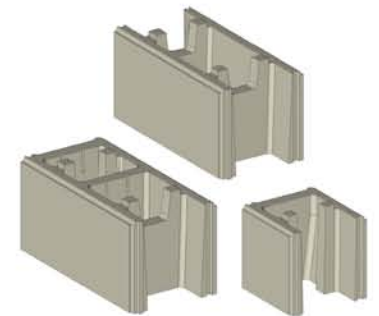
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Haener Block

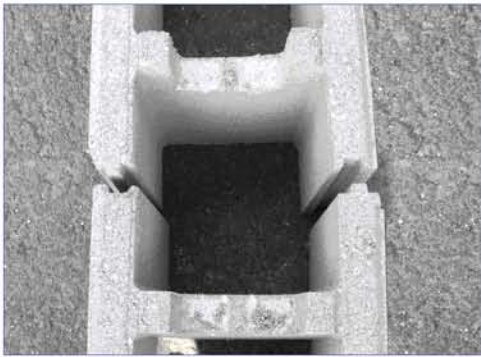
The Mortarless Interlocking System



Self-aligning and uniform, Haener Block structures look professional and aesthetic the first time, every time!

The Haener Mortarless Interlocking Block is a modular system which is dry stacked in running bond without mortar and then filled with grout to provide a finished wall.

Stacked without Mortar, Haener Block can be laid up to 10 times faster than conventional block by skilled, semi-skilled or unskilled laborers.



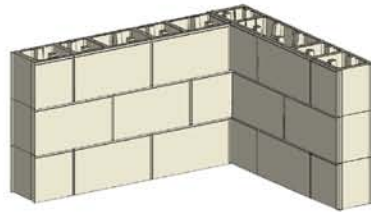
Self-aligning lugs molded in the block locks them together without mortar. Recesses in the block allow rebars to be placed vertically and horizontally without tying.

The advantage of the Haener system is its simplicity, flexibility, and attractiveness. There are only three blocks: a runner, end, and half block. Together these blocks produce finished ends, pilasters and corners. The half block is also used to produce a lintel for door and window openings.

Haener Block differs from conventional block in that it is not necessary to use mortar between blocks or courses. Interlocking nubs position each block in relationship to those around it, and each block is manufactured to a constant height to maintain level and plumb of the finished wall.

Haener Block Meets all Building Requirements

- International Building Code Standards
- ASTM compression strength requirements
- International Conference of Building Officials
- National Concrete Masonry Association
- Research Laboratory (NCMA)



PREPARATION

Design your project with Haener Blocks in units of combination and half blocks. This reduces the cutting of individual block with a masonry saw.

Openings should be spaced a minimum of 24 inches apart to allow for a minimum width of one and a half block.

Pour a level concrete footing to suit your project. If the footing is level and relatively smooth, block may be stacked directly on the concrete without mortar. If footing is not level, it will be necessary to lay the first course of block on a full bed of mortar. Both are equally correct methods.

The tools you will need are few; a hammer, level, mason's line, chalk line, perhaps a trowel, and if block must be cut, a masonry saw.

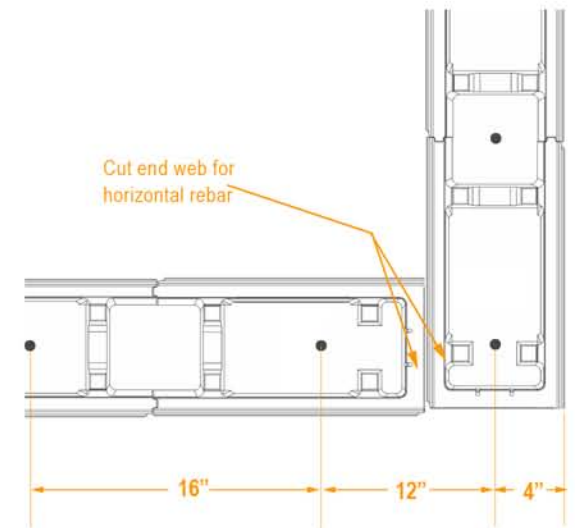
ASSEMBLY

The first goal is to provide a plumb and level first and second course of block.

After establishing square, snap a chalk line on the footing as a guide. Begin at a corner and stack two courses of block at once. This applies if you're working on the bare footing or with a bed of mortar. The second course helps to establish a comfortable spacing for both rows, one that will be easy to maintain for the full height of the wall. The height of two blocks is also easier to work with when you are trying to establish plumb.

No mortar is required between courses or between blocks. Where reinforcing is required, bars are placed horizontally along the grooves cast in the webs of each block, or vertically down the cores.

REBAR PLACEMENT FOR CORNERS



Place rebar every 16" thereafter, or as required by design.