

Haener Block®

The Worldwide Leader in Mortarless



Making Haener Block:
Tips and Guidelines

MAKING HAENER BLOCK: TIPS AND GUIDELINES

1. Block Machine Set-up:

- The over all width, length and the depth of a Haener mold is greater than a standard mold; the pallet delivery chain may have to be retimed to reposition pallet further to the front of the mold.
- All blocks must be centered on the pallets leaving the machine; they should have equal space on all sides of the pallet. The mold will require pallet guides to side position pallets exactly in the middle at the bottom of the mold.
- The pallet table may have to be adjusted to compensate for the difference in height of a standard block compared to a Haener block; you will need a clearance of no less than 8 & 3/4th inches or 219mm in metric.
- The pressure head for stripping will have to be adjusted to compensate for the extra height of the blocks, as compared to the standard block heights.
- Manufacture blocks 7 31/32" or 199mm high in metric this will help to keep your height dimensions of your walls in check.
- Loose materials must be cleaned from the tops of all blocks.

2. Manufacturing Pallets:

- All pallets must be flat within 1/16" or 1.5mm in all directions.
- Manufacturing Pallets: the quality of your pallets is important; a warped pallet will cause a variation in the height of the face shells. When there is a variation in face shell heights it is difficult to keep your wall plumb without shimming. This is not good.
- The quality of the surface of each pallet must be free of any cement build-up and free of any holes caused by corrosion. These types of problems will cause lumps or unevenness on the bottom of the blocks.

3. Mix Design:

- The proper mix design is one of the most important requirements for producing a quality block that has the proper strength and most attractive appearance.
- A well graded aggregate not only gives the block an attractive appearance, it reduces the amount of cement required, giving added cost savings.. This is a cost saving.
- Controlling the moisture content of the mix is very important; a dry mix will cause face shell and web cracking while a wet mix could cause the blocks to slump. A wet mix will cause cement sticking to the stripping shoes, pulling pieces from the top of the blocks.
- A wet mix can cause a cement build up underneath the core bars at the end webs for the corner and half blocks; this will leave an uneven top at the ends and will appear as a hole when stacked.

3. Sieve Analysis:

- A specification sheet is available for coarse aggregate and fine aggregate materials.
- Following are the specifications for coarse and fine aggregate materials and a combined aggregate analysis. These combinations have worked very well over the past years.

SPECIFICATION SHEET

Crushed Gravel or Crushed Lime Stone

Sieve Size	Metric	Ideal % Retained	Ideal % Passing	Limits% Retained	Limits% Passing
3/8	10mm	0	100	0	100
4	5mm	60	40	55-65	35-45
8	2.5mm	35	5	30-40	5-5
16	1.25mm	4	1	3-5	0-2
30	0.60mm	1	0	0-2	0
50	0.30mm	0	0	0	0
100	0.15mm	0	0	0	0
Pan	Pan	0	0	0	0

Suggested Combined Aggregate Analysis

Sieve Size	Metric	Ideal % Retained	Ideal % Passing	Limits% Retained	Limits% Passing
3/8	10mm	0	100	0	100
4	5mm	0	100	0	100
8	2.5mm	18	82	16-20	80-84
16	1.25mm	23	59	21-25	59-59
30	0.60mm	18	41	16-20	39-43
50	0.30mm	22	19	20-24	19-19
100	0.15mm	12	7	10-14	5-9
Pan	Pan	7	0	5-9	0
FM		2.92			

Note: #4 Sieve Size for the stone must be 75% to 100% Crushed

Suggested Combined Aggregate Analysis

Sieve Size	Size	% Retained	Ideal %
10mm	3/8	0	0
5mm	4	6-10	8
2.5mm	8	19-23	21
1.25mm	16	20-24	22
0.60mm	30	13-17	15
0.30mm	50	17-19	18
0.15mm	100	7-11	9
Pan	Pan	6-8	7
			FM3.31

There should not be more than 45% retained between any two sieves.

DESIGN MIX AND SETUP EXAMPLES

<p>Haener Design Mixes - 2 yd Mixes</p> <p>80% washed Concrete Sand 3840 lb..</p> <ul style="list-style-type: none"> • S.E. – 85 –90 • F.M. – 2.8 – 2.9 <p>20% Birdseye (hard rock 1/8") 800 lb.</p> <p>20% 5/16 minus cinder 540 lb.</p> <p>Cement – 530 lb. (special type 2 block)</p> <p>Aggregate to cement ratio – 8 to1</p>	<p>Special Setup for Columbia Machines</p> <p>Floor model 1600 3 block Columbia</p> <ol style="list-style-type: none"> 1. Standard 8816 setup, feed time, and cure time. 2. Must have wire brush to clean head. 3. Weak not strong 8" height 4. Not wet (sticking) borderline dry. 5. standards 8816 strike off 6. If running Columbia Additional 3/4" spacer between head plate and compression beam
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The above suggested mix and setups are recommended and used by RCP Block & Brick in San Diego, California – a Haener Block Licensee.

PALLETIZING INSTRUCTIONS

The Haener Blocks have been designed so that they will interlock when packed for storage or transportation. This feature is true for both the half block and the combination block. The blocks interlock for packing in a denser orientation than when in the wall. See Figures 8 and 9.



Side View Figure 8



Top View Figure 9

Once interlocked the blocks will not slip and therefore the breakage during transportation and storage is reduced to nearly zero. The blocks can be packed on a pallet, have shrink nylon applied and then stored in the factory without the risk of becoming dirty or “old” looking. The pallets generally hold between 80 and 100 blocks.

Note: with the new Two-Block open-end system it is best that each layer of block on the pallets has the open end facing in the opposite direction. For example the first layer of block should have the open end facing to the left. The next layer should have the open end facing to the right and so on until the pallet is full.