HI-R Masonry Wall System Tips
for
The Masonry Contractor

IMPORTANT

Before laying any HI-R Blocks, first read the following "Key Points" and then the attached, "HI-R Masonry Wall System Tips for The Masonry Contractor".

Key Points:

1.) When HI-R Blocks are used, the preferred location for the insulation inserts is towards the outside face shell of the Block. This allows the walls to take advantage of the mass of the wall's construction. However, some architects and/or engineers prefer the insulation inserts against the inner face shell of the Block which is acceptable.

2.) **DO NOT TURN BLOCKS UPSIDE DOWN**. The blocks should be laid upright with the wording on the insulation insert up and readable.

3.) The HI-R System works only with 9-gauge Ladder Type Wall Reinforcing with 16 inch butt welded center cross ties. The ties are placed directly over webs of blocks to allow the innermost insert to be pushed down to lock with the insert below it.

4.) Remove the innermost insert ("B" insert) on the starter course. This is done to make certain any mortar that may have fallen under the inner insert does not prevent inserts on the next course from being pushed downward.

5.) HI-R Blocks were not designed to make a mason's job more difficult. They were designed to make certain masonry walls meet new Energy Code requirements. It is our Company's goal to provide the mason with blocks that will keep them competitive and to allow them to make a fair profit for a job well done.

6.) HI-R drawing details are available on our web site: www.cbisinc.com in the Technical Library section #300.

Immediately after each Block or course is installed, make sure the "B" insert is tapped down to avoid a height gain (excess mortar can get under inserts and harden).

Daily clean up and picking up loose inserts makes a safer job and a happier General Contractor and Owner.

CPG and Korfil Sales Managers and Engineers are calling on architects, engineers and national accounts daily promoting block buildings. We stand ready to help the Masonry Contractor in a joint effort to keep masonry in the forefront and masons working. Glass, Window-Wall, Tilt-Up or Pre-Cast DOES NOT put money in your pocket. **OUR SYSTEM DOES!**

For additional information call your local block producer or

CONCRETE BLOCK INSULATING SYSTEMS, INC. at 1-800-628-8476

HI-R MASONRY WALL SYSTEM
TIPS FOR THE MASONRY CONTRACTOR

Because of the unique design of the HI-R System, your masons and tenders will need brief instructions as to the minor differences between the HI-R Wall System and a regular block wall.

HI-R Block comes to the job site pre-insulated by the Block Manufacturer.

HI-R production is in direct relation to your company's expectations. Generally, the same number of units you estimate for laying an architectural block (8", 10" or 12") can be expected. The HI-R Block is 18% lighter and after a short learning curve, production is normal, with less back-ache.

HI-R Blocks have an unobstructed cavity for grouting and re-bar placement, with either a running or stacked bond. Webs remain aligned. If possible, give General Contractor information on the proper spacing and location for vertical re-bar placement in grade beam to avoid bending rods or cutting block.

Care should be taken in job site handling to avoid chippage and breakage. Your forklift operator should exercise caution on rough terrain.

The System is designed to use a 3/8" mortar joint, head and bed. Less mortar should be placed on the bed joint as the HI-R Block are 1/8" greater in height at the inside of the face shell (7 3/4") than at the face (7 5/8"). The HI-R System is made up of a 2-part insulation insert called the "A" Insert and the "B" Insert. The "A" Insert is for the one closest to the face shell. The "B" Insert can be tapped down either by hand or by using the base of the trowel. This allows it to interlock with the "B" Insert below it.

It is recommended the "B" Insert or innermost insert be removed on starter courses, since on many occasions, excessive mortar is placed on the base course, preventing the "B" Inserts from being pushed down. It is helpful toward optimum production to remove the inner end tabs by saw cutting prior to building lead or jamb.

Immediately after each Block or course is installed, make sure the "B" insert is tapped down to avoid a height gain (excess mortar can get under inserts and harden).

Wire for HI-R Wall System is 9-gauge ladder type only, with cross members butt welded at 16" increments. It is produced by all leading manufacturers. Cross members should always be placed over web. For use as a bond beam, one or both inserts may be removed if necessary. Delete inserts at loadbearing points directly under bar-joist, pre-cast beams, etc. Consult your project architect and engineer for approval.

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Hi-R Masonry Wall System
Grout Areas with Inserts in Place

8 Inch Units

Volume = 2.3 x 8.0 x (16 - 2.6)

= 246.6 inches ^{3}

1 cu yd = 46,656 inches ^{3}

Approx 189 8-inch Hi-R Blocks with Inserts can be grouted with 1 cu yd.

10 Inch Units

Volume = 3.6 x 8.0 x (16 – 2.6)

= 385.9 inches ^{3}

1 cu yd = 46,656 inches ^{3}

Approx 121 10-inch Hi-R Blocks with Inserts can be grouted with 1 cu yd.

12 Inch Units

Volume = 5.6 x 8.0 x (16 - 2.6)

= 600.3 inches ^{3}

1 cu yd = 46,656 inches ^{3}

Approx 78 12-inch Hi-R Blocks with Inserts can be grouted with 1 cu yd.

D.L. Nickerson, P.E.
22 July 2003