

## REASONS TO USE RODS & MORTAR

Internal and External Panels  
Straight or curved walls

### GOLDEN RULES OF GLASS BLOCK INSTALLATION USING RODS & MORTAR

- Glass block walls are self supporting, but not load bearing.
- For best integral strength, glass blocks should be installed into a four sided pre-prepared opening. This opening can be timber, brick, steel, concrete or blockwork.
- Glass blocks expand and contract with temperature change.
- Glass blocks should not be installed when the surrounding temperature is 5°C and falling or 30°C and rising.
- Expansion material must be incorporated to the perimeter opening.
- Openings must be square and perpendicular and made to suit glass block modules. Glass blocks cannot be cut like masonry bricks or tiles.
- Maximum panel size without intermediate slip joint is 25m<sup>2</sup> with no single dimension exceeding 6m in any direction.

### CALCULATING OPENING SIZE

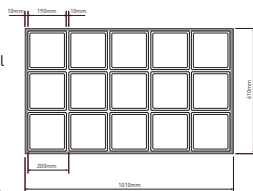
190mm glass block :	190
10mm joint :	+ 10
	200
Number of blocks :	x 5
	1000
Add sixth joint of 10mm:	10
Minimum opening size :	1010mm*

#### EXAMPLE :

Using 10mm joints

\*The expansion material is incorporated into this measurement.

— Denotes expansion material



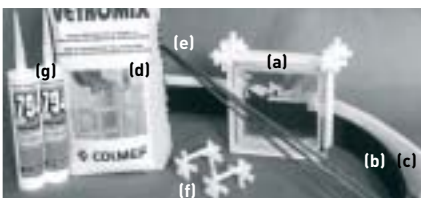
### TOOLS REQUIRED

Trowel, spirit level, rubber mallet, wooden spatula, hack saw, pointing tool, silicon and caulking gun, drill & mixing bucket.

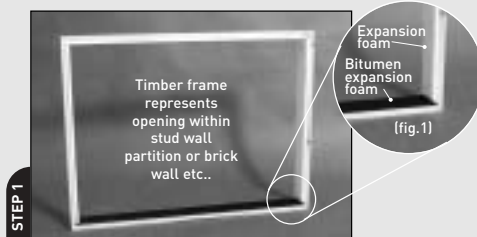


### ACCESSORIES REQUIRED

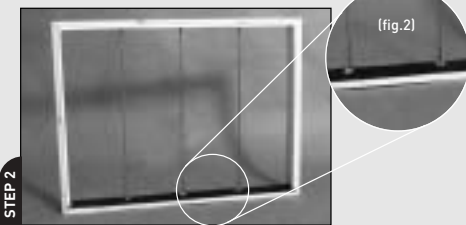
(a) Blocks, (b) bitumen and (c) foam expansion joints, (d) colmef mortar, (e) stainless steel rods, (f) plastic spacer pegs (g) silicon



## PREPARATION OF OPENING



Calculate the correct opening size. Make sure the opening is square and perpendicular. Lay bitumen expansion material along base of opening. Secure expansion foam to jambs and head. All four sides of the opening should now be covered in expansion material [See fig.1]. Bitumen is necessary on the base to take the weight of the glass block wall.

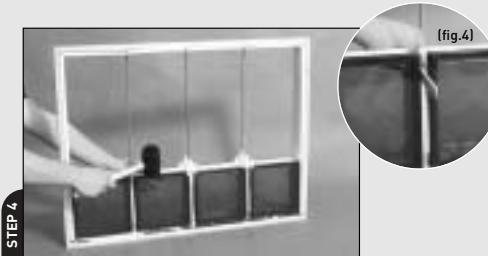


Set out dry your first row of glass blocks to ensure opening size is correct. Mark accurately and drill oversized holes in between the blocks, vertically and horizontally where rods will be positioned. Fill holes with silicon and fit vertical bars in place [fig.2].

## LAYING FIRST COURSE



Mix Colmef Vetromix glass block mortar following instructions on reverse of bag [fig.3]. The mix should be a semi dry consistency [Slump 1 or less]. Lay down a bed of mortar.



Fit first block and tamp down gently, fit second block and repeat. Ensure there is enough mortar between the blocks and the base to create sufficient adhesion, compact the vertical mortar joint using a wooden instrument. [fig.4] **Note** : Spacer pegs are not required between base and first row of blocks.

## BUILDING THE PANEL



Repeat Step 4 until you have completed the first row. Insert spacer pegs in between blocks, this prevents steel rods from touching glass [fig.5]. Lay half the quantity of mortar and fix the horizontal rod in position, not forgetting to put silicon in the holes, then cover over the rod with remainder of mortar [fig.6]. Rods have to be positioned every row vertically and horizontally. If using a 'U' channel, two stainless steel reinforcement rods are required around the perimeter.



Fit next row, checking vertical and horizontal alignment.

## FINISHING THE GLASS BLOCK PANEL



When the wall has set, snap off spacer tabs and grout all joints with diluted Colmef mortar.

## SEALING AND WEATHERPROOFING THE GLASS BLOCK PANEL



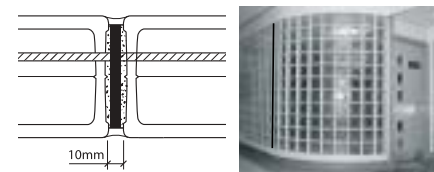
Mastic around perimeter of expansion foam to create a weather proof seal.

## CURVED WALLS

Curved glass block walls can only be constructed using Rods & Mortar installation system. The principle of a curved panel follows the same guidelines as straight glass block walls, except the front vertical joint is opened to form a curve.

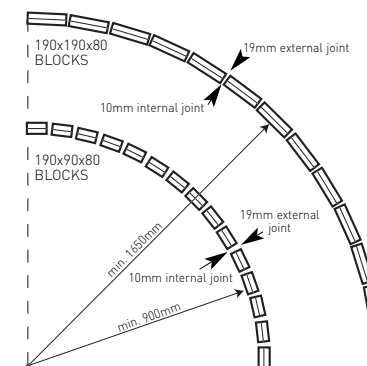
### EXPANSION JOINTS

Perimeter expansion should be allowed for around all four sides of the panel, ensure this joint is weatherproofed by caulking with silicon and not grouted over with mortar. Where a curve changes plane, a vertical slip joint must be inserted.



### JOINT SIZES AND MINIMUM RADII

When constructing curved glass block panels, Glass Block Technology recommend the use of a 10mm internal vertical joint. Using 190x190x80mm glass blocks, the minimum internal radius of 1650mm will result in the external vertical joint being 18-19mm.



### INITIAL CLEAN AND AFTER CARE MAINTENANCE

Do not clean with any acidic products, the best product for cleaning is water. Polish each block with a soft cloth using good old elbow grease.

**Note** : Clean face of block as work proceeds.

The glass block installer should have left the glass block wall in a clean, unblemished condition. Requiring only periodical cleaning to maintain an excellent appearance.

However, there may be a residue of cement on the glass surface left from mortar/tiling grout identified by whiteish bloom when dry. This may be removed by use of proprietary cement stain remover. (BAL HD Tar Cleaner)

### HYDROFLUORIC ACID OR DERIVATIVES MUST NOT BE USED.

Paint or cement may be removed by a blade taking care not to scratch the surface of the glass.

Periodic cleaning is required using clean water and buffing up with a chamois leather or in clean water use a proprietary glass cleaner and clean off with a lint free cloth.