



MASONRY BASICS

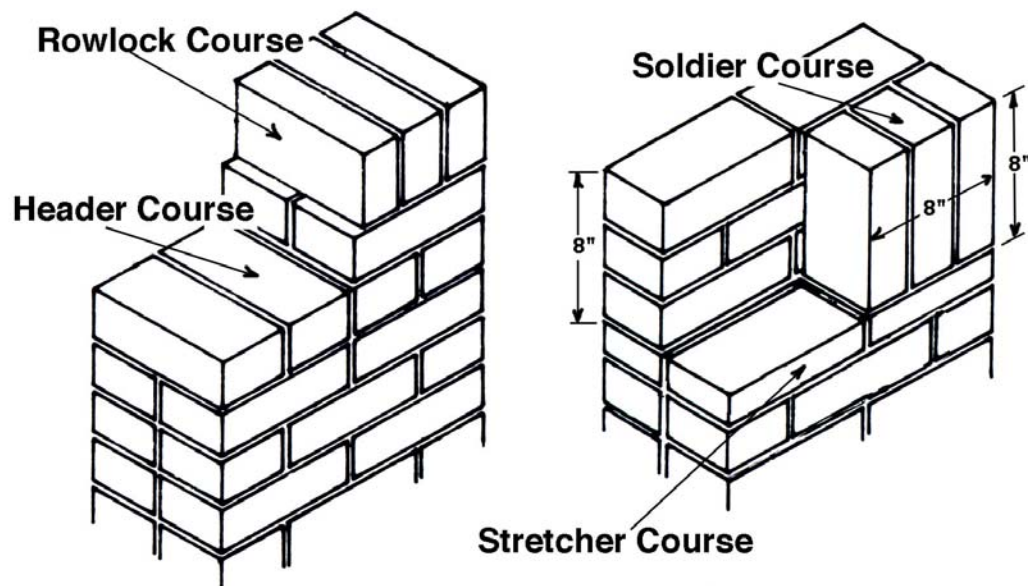
Masonry is a term used to indicate the part of construction that uses brick, concrete block, structural clay tile, and stone. These materials are held together with **mortar**. Mortar for masonry is *not* cement mix, the material used for sidewalks, patios, or driveways. Basically, mortar mix contains lime, sand, and gypsum, each in the proper proportions. Cement mix, on the other hand, has stones in the sand, and does not contain lime.

While some special mortar compounds may be needed to match the appearance of the existing mortar on your home – some brickwork, for example, has mortar made with lake sand, containing small shells – it is usually easier and more efficient for general use to get a “mason’s mix,” and then add the correct amount of water. The directions on the bag must be followed to get the right consistency. The resulting mortar will be gray but, if necessary, can be tinted to match the appearance of existing brickwork.

Large masonry projects are best done by a professional, but smaller projects are within the abilities of most do-it-yourselfers. **Bricks** and **blocks** are generally laid in the same manner, with horizontal and vertical courses that must be kept level and plumb. Bricks and blocks are manufactured to work with one another. The basic dimension used is the 8” *module*. (A *half-module* is, of course, 4”.) The total horizontal dimension is divided into 8” modules to determine how many standard bricks will be needed in each row.

The height of a particular piece of masonry is also described according to the 8” module, but in a different way. Three horizontal brick courses are eight inches high. Thus, a wall 24” high would have three eight-inch modules with three rows of brick per module, and so would be 9 rows high.

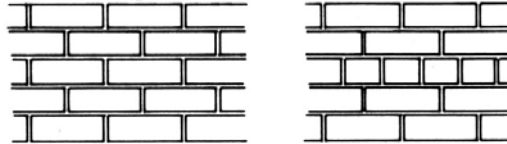
Naturally, if you use bricks other than standard size, the modules will need to be computed differently. For this reason, it is imperative to know what size bricks will be used for your project.



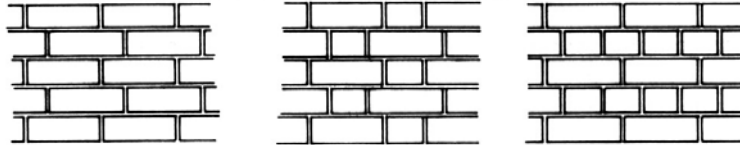
(continued)

The pattern used when laying bricks is called the **bond**. There are many different types of bonds, but the most common use full bricks or half bricks (*see below.*) If you are constructing a masonry project on a do-self basis, it will be much easier if you employ a bond that uses only full bricks, to avoid the tedious process of cutting bricks to smaller dimensions. If you do need partial bricks, however, you can cut them with a hammer and brick chisel, or by hitting them with the pointed end of a mason's hammer, or by cutting them with a circular saw and a masonry cut-off blade, or by renting a brick saw.

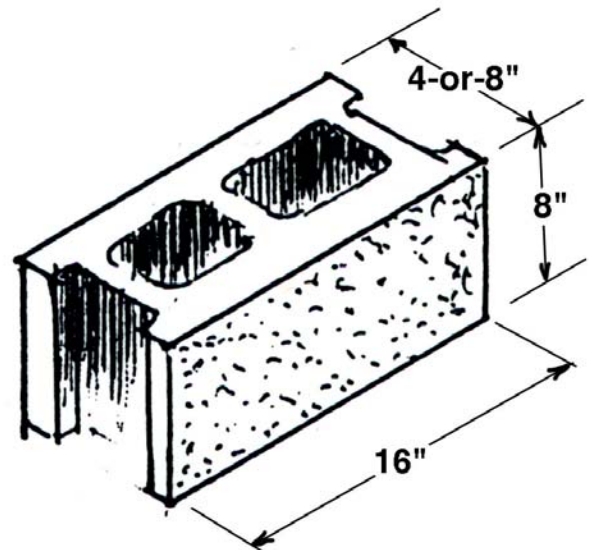
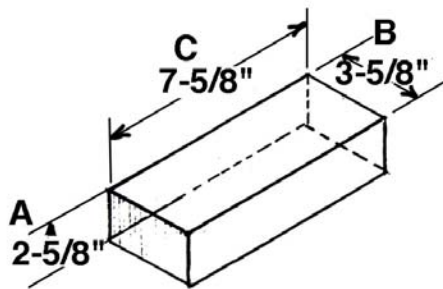
Running Bond Common Bond



Roman 1/3 Bond Flemish Bond Dutch Bond



While mixing the mortar, soak the bricks thoroughly in water. Lay a bed of mortar on the footer to get started. Then, "butter" (coat) each end of the brick with mortar, push it gently into the bed on the footer, and tap it lightly into place with the handle of your trowel. After getting the first row straight, and checking it with a level, you can continue on up. As you build, pay close attention to both the horizontal level and the vertical (called "plumb.") Constantly check both directions with the level to ensure the bricks are straight. After the brickwork is completed, allow it to set and properly harden for several days before putting any weight on it.



Brick Sizes			
Name	A	B	C
Standard	2-5/8"	3-5/8"	7-5/8"
Roman	1-1/4"	3-5/8"	11-5/8"
Norman	2-5/8"	3-5/8"	11-5/8"
Brick BL	3-5/8"	3-5/8"	11-5/8"

Standard Concrete Block Dimensions