

## Dimensions and Sizes for CMU

Three terms are used in referring to dimensions: specified, actual, and nominal.

**Specified dimensions** are those specified for the manufacture of masonry units or the construction of masonry. Design calculations are based on specified dimensions. Concrete masonry unit (cmu) specified dimensions compensate for a 3/8 (0.375) inch joint for precision and split face cmu, and a 1/2-inch (0.5) joint for Slumpstone™. (See "nominal dimensions" below.) Thus, a precision or split face unit with a nominal size of 8x8x16 has specified dimensions of 7.625x7.625x15.625; Slumpstone™ as 8x6x16 has specified dimensions of 7.5x5.5x15.5

**Actual dimensions** are the measured dimensions of the unit. ASTM Standards allow the actual dimensions a permissible variation from the specified dimension. For example, the outer dimensions of a 10x8x16 unit (9.625x7.625x15.625 specified) are allowed a variation of + or - 1/8 inch. In this case the width could range from 9.5 to 9.75 inches.

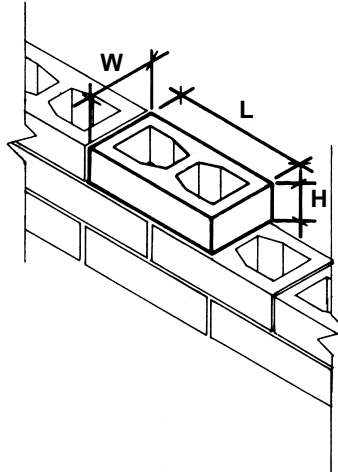
**Nominal dimensions** are those used in stating the unit size. They are equal to the specified dimensions plus the thickness of the mortar joint.

For Example:

Precision  
nominal dimension: 8 x 4 x 16  
specified dimension: 7 5/8 x 3 5/8 x 15 5/8

Slumpstone™  
nominal dimension: 8 x 4 x 16  
specified dimension: 7 1/2 x 3 1/2 x 15 1/2

Dimensions must be stated in proper order - width, height, and length (WHL). For example, an 8-inch wide, 16-inch long, 4-inch high unit is termed an 8x4x16. Reversing any two dimensions will describe a completely different unit. Using the same example stated as 4x8x16 would indicate a unit 4 inches wide and 8 inches high (not 8 inches wide and 4 inches high).



### Specified dimensions for ASTM C 140 A1.5.5.2:

(Overall dimensions - width x height x length)

#### Precision or Split Face

Nominal Size:	Specified Dimensions
4x8x16	3.625 x 7.625 x 15.625
6x8x16	5.625 x 7.625 x 15.625
8x8x16	7.625 x 7.625 x 15.625
10x8x16	9.625 x 7.625 x 15.625
12x8x16	11.625 x 7.625 x 15.625
16x8x16	15.625 x 7.625 x 15.625

#### Slumpstone™

Nominal Size:	Specified Dimensions
6x6x16	5.5 x 5.5 x 15.5
8x6x16	7.5 x 5.5 x 15.5
10x6x16	9.5 x 5.5 x 15.5
12x6x16	11.5 x 5.5 x 15.5

Only height considered for comparing actual vs. specified