



Each Airfloor form displaces 0.223 cu. ft of concrete per sq. ft. One (1) inch of concrete is required to fill the void formed by the corners of the forms to the level of the top of the Airfloor dome.

Concrete over wood deck

Specification calls for 1.5 inches of concrete over top of domes. Since one inch of concrete is required to fill the voids to the top of the dome, the total amount of concrete is 1" for the voids plus 1.5" over the top. Total concrete required is 2.5". $2.5" \div 12 = 0.208$ cu. ft. per sq. ft. A 1000 sq. ft. room $\times 0.208 = 208$ cu. ft. per 1000 sq. ft. Thus, $208 \div 27 = 7.70$ cu. yd. of concrete per 1000 sq. ft.

Light weight concrete weighs 90 to 110 lbs per cu. ft.
Regular concrete (3000 Lbs) weighs 145 to 155 lbs. per cu. ft.

Example: Concrete material calculation for an Airfloor slab.
Specification calls for a 2" sub slab and 1.5" of concrete over the top of the dome.

Since 1" of concrete is required to fill in the voids, the total amount of concrete is 2" for the sub slab plus 1" for the voids plus 1.5" for the top pour which is equivalent to a 4.5" solid slab.

Calculation: $4.5 \div 12 = 0.375$ cu. ft. per sq. ft.
 $0.375 \times 1000 = 375$ cu. ft. per 1000 sq. ft.
 $375 \div 27 = 13.89$ cu. yd. per 1000 sq. ft.

Comparison: Amount of concrete for 4" solid slab with no Airfloor installed:

$4" \div 12 = 0.333$ cu. ft. per sq. ft.
 0.333 cu. ft. $\times 1000 = 333$ cu. ft.
 333 cu. ft. $\div 27 = 12.533$ cu. yd. of concrete per sq. ft.

Assuming that the building is a flat slab of 17000 sq. ft., the Airfloor slab will require 23.12 cu yds of concrete more than if the slab was a solid 4" slab.



Installation

Slab on grade Two pours

Sub slab needs to be only reasonably level. **NO FINISHERS REQUIRED**

LABOR

Sub Slab Pour

If the sub slab is only 2", and we are comparing it to a 4" solid slab, we can assume that the cubic yards of concrete for a two inch slab will be half the cubic yards of a 4" solid slab. Therefore, the number of laborers required to do an area, such as 3000 sq. ft., will be half the number of laborers required to pour a 4" solid slab.

The sub slab does not have to be perfectly level – the perfecting of the leveling will be done on the second pour; nor does it have to have a smooth finish. The workers need only to bull float the concrete and the resulting finish is a satisfactory surface. **NO FINISHERS ARE REQUIRED TO BE ON HAND FOR THE POURING OF THE SUB SLAB.**

Top Slab Pour

The typical 4" solid slab has to dry out somewhat before the finishers can perform their work because the excess water must evaporate. The wait, depending on the weather, could be from two to four hours. With an Airfloor system installed, the wait would most likely be half the time because the water will drain through the Airfloor to the sub slab.