Dock Flotation Guide

Stock No.	Approximate Flotation
46116 – 24" x 48" x 12" H	450 lbs.
46117 – 24" x 48" x 16" H	600 lbs.
46118 – 24" x 36" x 12" H	335 lbs.

CAUTION: We recommend using enough floatation such that no more than 50% of each float is submerged. To determine float quantity multiple the weight of the dock x 2 and divide by float buoyancy rating. Dock floats must be mounted with the bolt flange on top so the weight of the dock rests on top of the floats. Dock Floats are not designed to be fully submerged. Using this product in a manner other than described will void the warranty. For more information visit our website www.taylormadeproducts.com

Determining the Quantity of Floats Required:

A typical dock installation is one where 40-50% of the total flotation rating of the floats is consumed by the weight of the dock leaving the unused flotation available to carry a load on the dock while the dock is in use. *For example, if a dock weighs 1200 lbs. and has 2400 lbs. of flotation under the dock, the dock will float about ½ way up the sides of the dock floats with no loading. The dock will have a working load capacity of 1200 lbs. before the actual dock contacts the waterline. In this example, (4) #46117 floats could be used to provide 2400 total pounds of flotation.*

Calculating Freeboard:

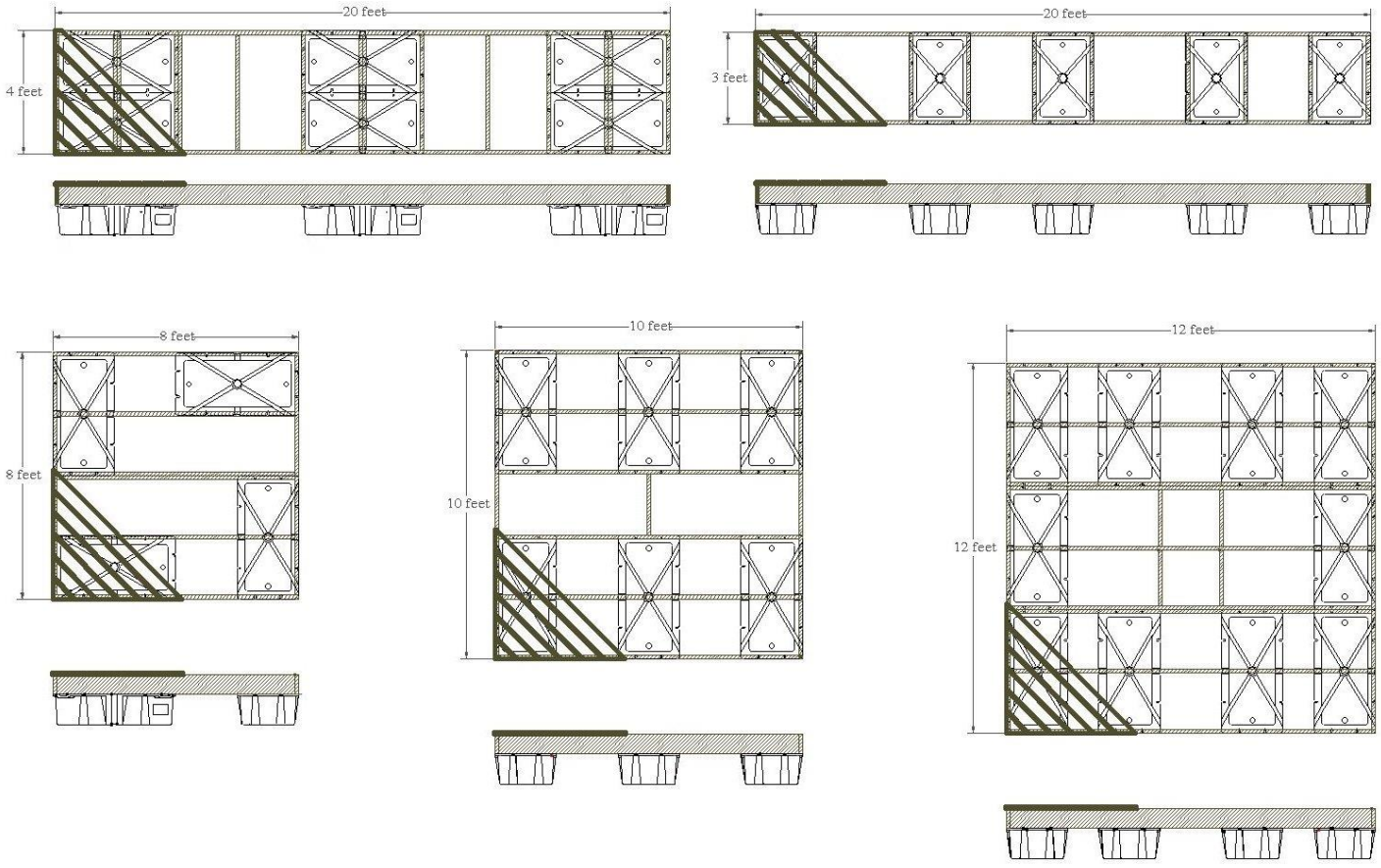
Another consideration is how much freeboard is desired. Freeboard is controlled by a combination of unused flotation and the actual height of the material used to construct the dock. *For example, a dock is constructed from 12" high dock floats. The dock is constructed using 2 x 6 lumber with 5/4" decking and the weight of the dock consumes 50% of the total flotation. The total freeboard will be about 12.5". (The dock floats provide 6" of height above the water line from unused flotation or 50% of the remaining buoyancy, standard 2 x 6 lumber is actually 5.5" high and 5/4" decking will add 1" for a total of 12.5").*

If the application requires determining exact freeboard you should consider the first inch of the float will be lost to supporting the actual weight of the unloaded dock float. Also,

to compensate for the tapered shape of the float, use 90% of the maximum flotation rating to calculate how much more of the float will be submerged. The tapered shape means the first few inches at the base of the float touching the water will have less buoyancy than the top of the float. *For example, a #46116 is a 12" high float with a flotation rating of 450 lbs. At 90% the rating is 405lbs. By dividing 405 lbs. by 12", you can calculate the float will sink 1" for every 38 lbs. of loading placed on the float.*

Float Placement

Beyond flotation and freeboard consideration, the size and shape of the dock will dictate the quantity of floats needed. A well designed dock should have good balance and stability. This is best achieved by placing the floats at the perimeter and keeping the design as symmetrical as possible. Choose a float size that will provide adequate total flotation and fit well in the overall dock layout. Here are some typical dock layout patterns:



Dock Float Attachment

Mounting slots are provided along the perimeter of each float for lag screw style fasteners. Dock floats should be securely fastened to the dock using lag screws with fender washers. Choosing a fastener with proper corrosion resistance to match the application will assure longer life. Plated or Hot dip galvanized fasteners are a good choice for wood construction docks in fresh water applications. Stainless steel fasteners

may be used in salt water applications providing they are compatible with the material selected for dock construction.

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