

How to evaluate the buoyancy capacity of your floating dock & the choice of floats needed

Choose the required buoyancy

BUOYANCY (average per square foot)

"Basic"	: 20 lbs / sq.ft
"Good"	: 25 lbs / sq.ft
"Commercial" type	: 30 lbs & + / sq.ft

Choose the height of free-board that fits your needs

Free-Board *	Heights of Floats & Buoyancy
+/- 13"	8" / 200 or 370 lbs
+/- 17"	12" / 450 lbs
+/- 20"	16" / 600 or 750 lbs

* Free-Board: height of dock above waterline

EXAMPLE: Calculation formula to determine the quantity of floats required for an 8 ft x 12 ft dock with "Good" buoyancy, using the 8" / 370 lbs capacity floats :

- 1 - Area of an 8' x 12' dock : $8 \text{ ft} \times 12 \text{ ft} = 96 \text{ sq.ft}$
- 2 - Multiply area sq.ft by average sq.ft buoyancy : $96 \text{ ft} \times 25 \text{ lbs / sq.ft} = 2400 \text{ lbs}$
- 3 - Divide this total by the float's buoyancy : $2400 \text{ lbs} \div 370 \text{ lbs} = 6.48 \text{ floats}$
Round up to the pair amount of floats : 6 floats with 370 lbs of buoyancy
- 4 - To confirm the accuracy of your answer...take the total of floats you plan on installing (6) multiplied by its capacity ($6 \times 370 = 2220 \text{ lbs}$ of buoyancy) divided by the area of dock : $2220 \text{ lbs} \div 96 \text{ sq. ft.} = \mathbf{23.125 \text{ lbs}}$ will be the total buoyancy capacity of the dock to which you need to deduct the weight of the dock itself in order to get the net total floatation capacity...ouf!
- 5 - Have a look at the "Float chart" to make sure you can fit them all under your dock! (each float is different)

MULTINAUTIC's FLOATS : EMPTY or FOAM FILLED

