USE BLUE LABELLED OR BLUE DOT • COMPONENTS FOR FLOATING DOCK CONSTRUCTION

## HOW TO BUILD A 6' x 12' Floating Dock

1 Assemble main framework. Drill holes for 93-122-F.


| DESCRIPTION | LENGTH or PART \# | QTY. |
| :--- | :--- | :--- |
| 1 - End Stringer | $2^{\prime \prime} \times 6^{\prime \prime} \times 144^{\prime \prime}$ | 2 |
| 2 - Center Stringer | $2^{\prime \prime} \times 6^{\prime \prime} \times 141^{\prime \prime}$ | 2 |
| 3 - Side Stringer | $2 " \times 6^{\prime \prime} \times 69^{\prime \prime}$ | 2 |
| 4 - Cross Stringer | $2^{\prime \prime} \times 6^{\prime \prime} \times 21^{\prime \prime}$ | 4 |
| D - Inside Corner | $92-104-\mathrm{F}$ | 4 |
| F - Backer Plate | $93-122-\mathrm{F}$ | 8 |
| G - Joist Corner | $99-002-\mathrm{F}$ | 12 |
| H - Washer Plate | $99-006-\mathrm{F}$ | 24 |
| E - Carriage Bolt | $1 / 2^{\prime \prime} \times 21 / 2 "$ | 80 |
| V - Lock Washers | $1 / 2^{\prime \prime}$ | 80 |
| T - Nuts | $1 / 2^{\prime \prime}$ | 80 |

Note: items E, V \& T are all included in packages of 8 in Hardware Fastening Kit 85-100-F.

Squaring Your Dock Structure Lay the dock frame upside down on a flat surface in order to easily install floats. Check the squareness by measuring from corner to corner of the frame in an " $X$ " pattern as shown. The measurement should be +/- 1/4" between each other. Lock the framework into square by temporarily securing a piece of lumber (I) across one corner as shown below.


## 2

 Assemble center joists to fit recessed flanges of 99-246-F floats.| DESCRIPTION | PART \# | QTY. |
| :--- | :--- | :--- |
| J-550 Float | $99-246-\mathrm{F}$ | 4 |
| Float Fastener Kits | $85-125-\mathrm{F}$ | 3 |

2a Assemble optional rails for flush mount floats if desired.
For flush mount floats (optional) using Howell'M 400, 99-242-F.

Lay floats into position on the dock framework and mark each mounting hole location. Drill 3/16" pilot holes at each location to be used.

Note: floats may be secured to framework \& stringers.
For flush mount floats such as the Howelltm 400, 99-242-F, refer to Step 2a. location to be used.


| DESCRIPTION | PART \# | QTY. |
| :--- | :--- | :--- |
| J-400 Float | $99-242-F$ | 5 |
| M - Optional float rails | $2 " \times 6 " \times 72^{\prime \prime}$ | 7 |
| N - Screws | $\# 10 \times 3 "$ | 80 |
| Float Fastener Kits | $85-125-F$ | 4 |

## DOCK EDGE C:

3
Assemble decking and connecto hinges. (Hinges if attaching to another dock structure or shore footing.)

| DESCRIPTION | LENGTH | QTY. |
| :--- | :--- | :--- |
| O - Decking | $5 / 4^{\prime \prime} \times 6^{\prime \prime} \times 72^{\prime \prime}$ | 26 |
| N - Screws | $\# 10 \times 3^{\prime \prime}$ | 156 |

NOTE: Decking lumber is milled to have one "cap" or "crown" surface which will allow water to flow away from the deck surface. When mounting the deck boards to the dock frame it is recommended to fasten the decking "cap"/ "crown" up.

Hardware \& Fasteners required (referenced by item letter)


## 4 FLOATING DOCK ANCHORAGE



## Tools Required for the average Dock Build

lexcludes sizing/cutting of structural wood members)

- Electric Drill
- $1 / 2^{\prime \prime}$ drill bit or auger
- $3 / 8$ " socket wrench
- 9/16" socket
- 9/16" wrench
- \#2 Robertson (square) bit drive for decking screws
- $3 / 16^{\prime \prime}$ drill bit
- Pencil


## Hardware Requirements for Other Dock Sizes

| DESCRIPTION | PART \# | $10 \times 10$ Dock | $12 \times 12$ Dock | $6 \times 20$ Dock | $8 \times 20$ Dock | $10 \times 20$ Dock |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| G - Joist Corner | $99-002-F$ | 12 | 14 | 8 | 20 | 16 |
| H - Washer Plate | $99-006-F$ | 24 | 28 | 16 | 40 | 32 |
| D - Inside Corner | $92-104-F$ | 4 | 4 |  |  |  |
| F - Backer Plate | $93-122-F$ | 8 | 8 | 8 | 8 | 8 |
| K - Outside Corner | $99-004-F$ |  |  | 4 | 4 | 4 |
| J - Howell 550 Float* | $99-246-F$ | 5 | 7 | 6 | 8 | 9 |
| J - Howell 400 Float lalternate) | $99-242-F$ | 6 | 9 | 8 | 10 | 13 |
| Hardware Fastener Kit (8 pack Carriage Bolts, Lock Washers \& Nuts) | $85-100-F$ | 10 | 11 | 8 | 14 | 12 |
| Float Fastener Kit l8 pack Lag Bolts \& lat Washers) | $85-125-F$ | 5 | 7 | 6 | 8 | 9 |
| P - Chain Retainer | $99-013-F$ | 2 | 2 | 2 | 2 | 2 |
| W - Male Corner Hinge | $99-009-F$ |  |  | 1 or 2 | 1 or 2 | 1 or 2 |
| X - Female Corner Hinge | $99-010-F$ |  |  | 1 or 2 | 1 or 2 | 1 or 2 |
| U - Connector Pin | $96-111-F$ | 2 | 2 | 2 | 2 | 2 |
| Z - Male T Connector | $99-012-F$ | 1 or 2 | 1 or 2 |  |  |  |
| Y - Female T Connector | $99-011-F$ | 1 or 2 | 1 or 2 |  |  |  |

## Important Tips



Always use washer plates (99-006-F), backer plate (93-122-F) or mating hardware components together. Farmework of the dock structure should be sandwiched between hardware pieces at all joint locations as shown.
(sample only, other configurations possible)


Always use a lock washer with each carriage bolt usage to prevent bolts loosening over time.


## FLOTATION CAPACITY FORMULAE, REQUIRED \# OF FLOATS

Determine total square footage of dock surface area.
Multiply the total area by 25 (recommended 25 lb per sq. ft. buoyancy). Divide your answer by the float model number (250, 400, 550 or 600 ) depending upon float desired.

EXAMPLE (for an 6' x $12^{\prime}$ dock using Howellt 400 floats):
$6 \times 12=72$
$72 \times 25=1800$
$1800 \div 400=4.5$ or 5 floats


## Optional Floating Dock Hardware and Connector Hinge Placement

Hardware for docks up to 12 ft . in length


Connectors for docks up to 12 ft . in length


Hardware for docks over 12 ft . in length


Connectors for docks over 12 ft . in length


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6' x 20' Floating Dock


8' x 20' Floating Dock


10' x 10' Swim Dock


10' x 20' Floating Dock


4' x 20' Finger Dock


12' x 12' Swim Dock


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