Floating Marina design principles. Real life vs. paper version.

Silver Pütsep
M.Sc. Harbour Construction and Coastal Engineering
Top Marine
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Real life vs. Paper version

- Project Manager and Marina Designer
Real life vs. Paper version

- 21 different projects during past three years.
Real life vs. Paper version

- Marina Layout
- Engineering
- Project Budgeting
- Project Managing
- Construction teams
Real life vs. Paper version

- Haven Kakumäe Marina
- Seaplane Harbrour Marina
- Piritu Kalev’s Yacht Club
Real life vs. Paper version
Haven Kakumäe Marina:

- First 5-star marina in the Baltics.
- 300 berthing places.
- Recreational boats
Marina layout:
Haven Kakumäe Marina:

- Fairway distance 1,5 x Loa:
- Recommended: 1,5 x Loa – quiet pool.*

*GUIDLINES FOR MARINA DESIGN
PIANC REPORT N° 149/part II
RECREATIONAL NAVIGATION COMMISSION

*ASCE -Planning and Design
Guidelines for Small Craft Harbors
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Floating Marina Installations

- Reality
Haven Kakumäe Marina:

Harbourmaster’s comments:

• We have some boatowners, that are new in this area and for them the distances could always be bigger.
• Overall the the distances between the boats are just like they should be.
• The special design T-Bollards are nice to have, but during the storms, the normal T-Bollards would be more practical.
Seaplane Harbour Marina:

- Founded in 1917.
- Built and designed by Danish company Christian & Nielsen.
- 50 berthing places.
- Recreational boats
Seaplane Harbour Marina:

- Before new floating piers:
Seaplane Harbour Marina:

- After new design:
• Fairway distance 1.8 x Loa and 2.4 x Loa:
• Recommended:
• 2.0 x Loa – to avoid any back and turn maneuvers*. 

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Seaplane Harbour Marina:

- After new floating piers:
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- Reality

Pour Marina:
Harbourmaster’s comments:

• The distances between the boats is the absolute minimum.
• T-shape pontoon has proven to be a good small wave attenuator.
• T-shape pontoon makes it universal to moor different type and amount of vessels.
• Service pedestals should all have same amount of sockets (6 pcs). People tend to use it more, then one socket per boat.
• There should be extra bollards in the joints of fingers and pontoon. That spread the forces of the boat from boom to pontoon.
Pirita Kalev’s Yacht Club:

- Founded in 1948.
- Place of the Olympic Regatta in 1980.
- 190 berthing places.
- Sailing boats
Pirita Kalev’s Yacht Club:

• Before new floating piers:
Pirita Kalev’s Yacht Club:

- After new design:
Pirita Kalev’s Yacht Club:

- Fairway distance $1.4 \times \text{Loa}$:
- Recommended:
  - $1.3 \times \text{Loa}$ – with thrusters*
  - $1.5 \times \text{Loa}$ – quiet pool*

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Pirita Kalev’s Yacht Club:

- After new floating piers:
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- Reality
Pirita Kalev’s Yacht Club:

Harbourmaster’s comments:

• The club members have boats ranging 7 (20 ft) -14 (40 ft) m in length.
• There has also been some 16 m (50 ft) long boats.
• The minimum distance between two 12 m long boats is 16 m.
• There have not been any problems mooring the boats with this layout.
• If necessary, they move back and forth a couple of times to manoeuvre the vessel.
• I believe, that the marina is with quite an optimal solution.
Every marina is different.
Recommendations and guidelines are necessary to get more trust for our designs.

Thank you!