

floating low-energy house

PNED 108

brochure



life on the water . . .

Why water? Why would anyone leave the stability of terra firma to live on a moving surface, in smaller quarters and relative uncertainty?

The answer is simple. Water is life and water changes everything.

Can someone who doesn't crave water understand the attraction? Houseboat owners, who have convinced friends or spouses to share floating spaces, say that time is key to understanding. The longer one lives on the water, the less one fears it, and the better one may adapt to watertop rhythms. But it's not for everyone: the most common way of saying that water obsessions are born, not made.

floating house . . .

House on the water offers specific qualities to its habitants. It gives them opportunity to feel and live in the nature that is surrounding them, on the other hand its construction and technologies ensure necessary background and comfort equal to houses on the land.





general specification

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Project: 2009
Built: 2010

Main dimensions:

L_{\max}	=	12,85 m
B_{\max}	=	8,52 m
T_{\max}	=	1,20 m
H_{CWL}	=	7,00 m
F_{\min}	=	0,30 m
Displacement	G	= 103,6 t @ T_{\max}
Displacement reserve		25,92 t
Bedrooms		3
Gross area		130,99 m ²
Net area		98,45 m ²
Terrace area		56,40 m ²

pontoons

Foundation of floating house is made of concrete pontoons (3pcs SMP 120/24/15) filled in with polystyren foam that ensures their unsinkability. We rely on the highest quality SM PONTON company pontoons in all of our floating foundations. Dimensions of foundation depends on size of the house.

construction

Superstructure of the floating house is of wooden frame construction with inner thermal insulation and batten facade. Total width of the wall is 375 mm of which 280 mm is thermal insulation. Composition of walls is diffusion open.

Other construction systems can be used when low weight is preserved.

All used materials are ecological and recycable.

technologies

Floating house is built in low-energy consumption standard. Some necessary technologies used: ventilation with heat recovery, air heating, heat pump, waste-water treatment tank built in the pontoon platform, passive house windows and door. Solar panels can be used as well as photo-voltaic panels. Water for shower, wash-machine or dish-washer can be taken from surrounding water cleaned in filtration device. All utilities (water, electricity 230/400V, sewage) are mostly connected to municipal system.





anchoring/mooring

There are few possibilities how to fix position of the floating house with respect to the bank but keeping the freedom of moving up and down with changing water-level.

Most common is probably connecting bridge in combination with one or more shore booms additionally secured with mooring ropes. The other more sophisticated option are piles. Last but not least is the most flexible system that uses anchoring concrete blocks laying on sea bed which are connected to pontoon with chains or Seaflex system in the case of greater water-level variation.

Choice of anchoring/mooring system depends on local conditions.

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