

REINFORCED CONCRETE QMF

GENERAL FEATURES

Structure	Marine concrete with 45N/mm ² density, watertight, reinforced with galvanized steel mesh
Core	Expanded polystyrene with 15kg/m ³ density
Fenders	Nordic pine impregnated
Fasteners and fittings	Semi-flexible; bolts, washers and nuts in galvanized steel; block in marine elastomer
Flexibility	Modular construction with variable sizes
Mooring systems	Chains, elastic moorings, piles, metal profiles or radius arms
Services	HDPE conduits on both sides
Live load	Greater than 5kN/m ²

Accessories and options

Non-linear geometries (30°, 45°, and 60°) are possible;
Decks in Nordic pine, exotic wood or composite;
Aluminum or cast iron cleats and bollards;
Marine elastomer fenders;
Concrete pigmentation;
Additional connection and hatch boxes.

APPLICATIONS

- Wave attenuation in coastal sheltered and estuarine areas for watershed and dock protection
- Bridge piers in areas with adverse conditions



The QMF (Floating Wave Attenuator) range consists of robust, resistant and safe pontoons made of reinforced concrete with an expanded polystyrene core. Its geometry, layout, construction method and type of connections make its primary use as a wave attenuator in the protection of bays and ports.

The units are monolithic and modular, built in sections of 15 or 20m. These dimensions reduce the number of moorings and connections required, and have advantages in terms of the overall performance of the system, reducing maintenance costs. The width can range from 3, 4 or 5 to 6m with a height range between 1.4m and 1.8m.



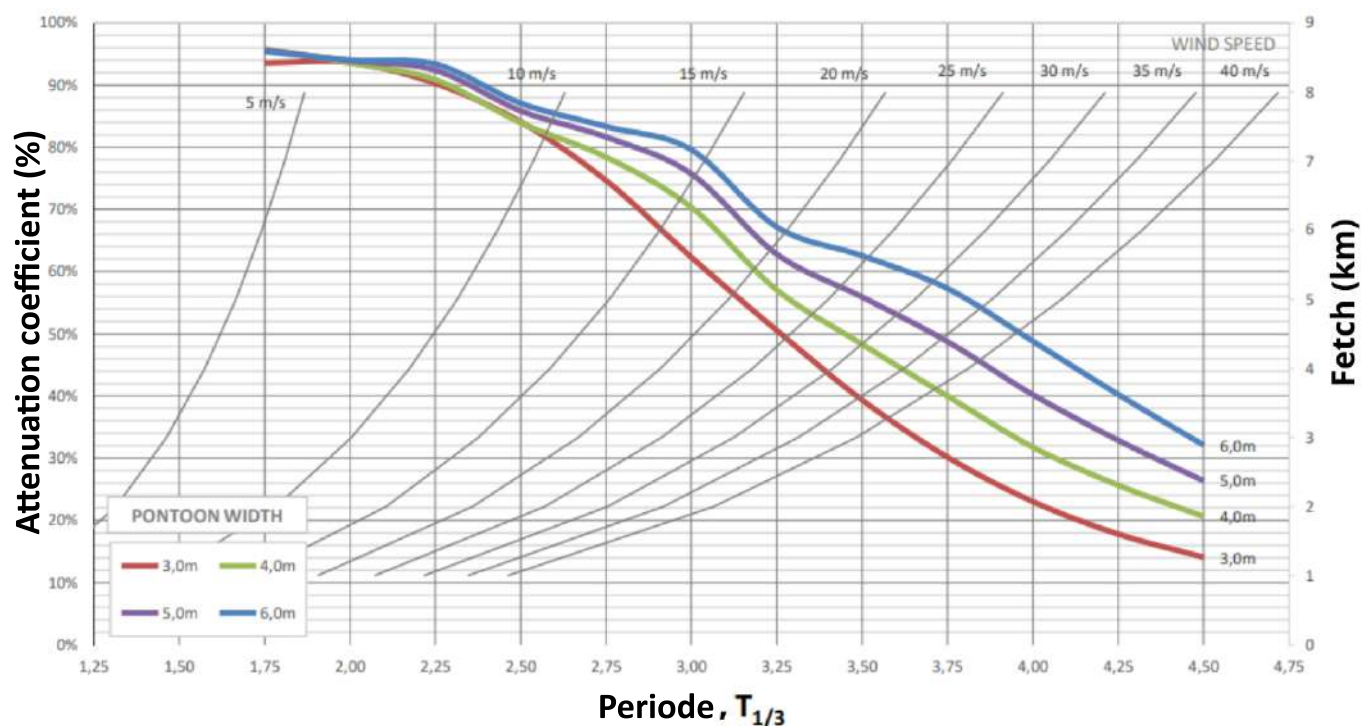
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QMF H18

H18	3015	3020	4015	4020	5015	5020	6015	6020
Length (m)	15,0	20,0	15,0	20,0	15,0	20,0	15,0	20,0
Net width (m)	3,0	3,0	4,0	4,0	5,0	5,0	6,0	6,0
Height (m)	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
Weight (Ton)	35,0	59,0	41,0	51,0	51,0	64,0	57,0	71,0
Live load (kN/m ²)	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0
Minimum freeboard (mm)	400	400	400	400	400	400	400	400
Medium freeboard (mm)	600	600	600	600	600	600	600	600
Maximum freeboard (mm)	1100	1100	1100	1100	1100	1100	1100	1200
Resistance connections (kN)	4x1218	4x1218	4x1218	4x1218	4x1218	4x1218	4x1218	4x1218

Attenuation Curve

QMFH18



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