



Shallow Water Basin

Model size range

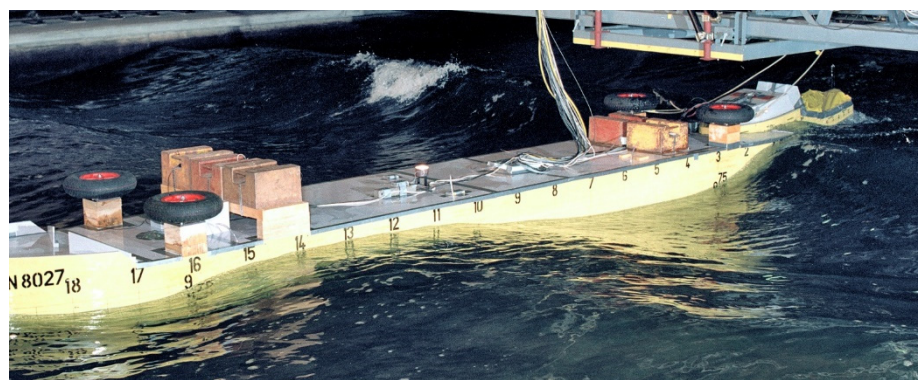
Particularly equipped for inland waterways push-boat and tow configurations. Overall length of 26 m and total beam of 5.5 m is the largest tested so far

Manoeuvring tests (zig-zag, PMM), model length up to 8 m
Floating structures and mooring arrangements depending on water depth and wave conditions

Model tracking techniques

Objects are tracked by optical system

| | |
|--------------------------------------|--|
| Dimensions | 220 m × 15.8 m, 1.1 m deep |
| Carriage | Manned, motor-driven |
| Type of drive system and total power | AC Thyristor power supply, 4 × 15 kW |
| Maximum carriage speed | 4 m/s |
| Other capabilities | PMM equipment |
| Wave generator capability | Regular and irregular waves Wave period 0.5 - 5 s Wave direction 0 - 180 deg Wave height up to 0.25 m (significant) |
| Wave maker type and extent | Piston type, on short side |
| Beach type | Adjustable in height, lattice type Portable electric resistance type wave probes |
| Wind | Generated by portable fans |
| Water depth | Adjustable, maximum 1.15 m for calm water, 1.0 m for wave tests |



Test capabilities

- Manoeuvring tests, zig-zag tests, stopping tests, PMM tests for determination of manoeuvring coefficients as input for the manoeuvring simulator.
- Resistance and self-propulsion tests especially for shallow water and/or narrow channels for ships and large push-tow fleets.
- Seakeeping tests with measurements of motions, wave loads and added resistance in waves for self-propelled ships.
- Behaviour of vessels in waves during beaching.
- Oscillation tests and tests in waves with a restrained model to determine hydrodynamic coefficients.
- Tests for moored and fixed objects to determine the motions, mooring forces and loads due to waves and wind.

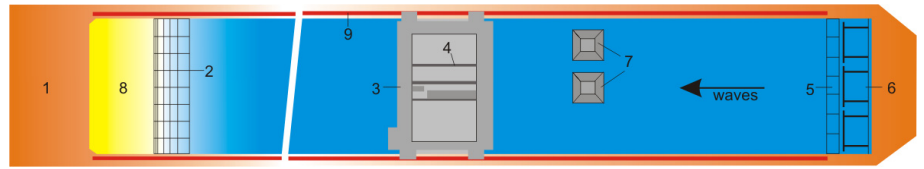
Instrumentation

MMS

(measuring frequency up to 10,000 Hz)

Number of channels: 40 (extendable)

High speed film and video recording equipment available



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|---------------------|---|--|
| 1 Working platform | 4 Sub carriage | 7 Pits (each 3 × 3 m, depth 2.2 m below tank bottom) |
| 2 Beach (removable) | 5 Strips to reduce cross-wave resonance | 8 Working pond |
| 3 Carriage | 6 Wave generator | 9 Walkway with rails |

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