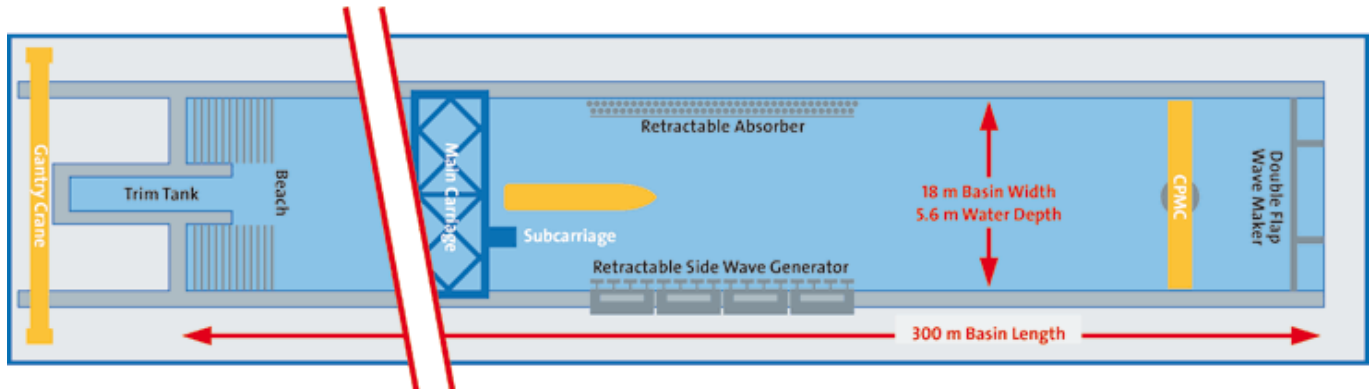


The Hamburg Ship Model Basin

Setting the Standard in Ship Optimisation

LARGE TOWING TANK

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Description of carriage:	Manned. Main carriage equipped with transverse carriage. Separate computerized planar motion carriage (CPMC)
Tank length:	300.00 meters
Tank breadth:	18.00 meters
Tank depth:	6.00 meters
Towing Carriage max. speed:	10.00 m/s
Towing Carriage max acceleration:	0.80 m/s ²
Towing Carriage max. deceleration:	1.40 m/s ²
Max regular wave height:	0.50 meters
CPMC max speed, longitudinal:	4.0 m/s
CPMC max speed, transverse:	1.9 m/s
CPMC max yaw rate	23°/s

- **Type of drive and total power:** 4 wheels, 8 servodrives (70 kW each)
- **Wavemaker type and extent:** duplex flap type, hydraulic, 18 meters wide
- **Beach type and length:** sparred wood grating at trimming tank side
- **Method of wave generation:** regular waves, computer generated wave trains with chosen spectra, wave packets and reproduction of measured wave trains
- **Method of irregular wave generation:** spectra composed of at least 100 single components (electro-

mechanical)

- **Instrumentation:** computer for control of experiments and online data acquisition and processing
- **Model size range:** 2 - 12 meters
- **Model tracking techniques:** controlled by human operator or fully automatic by process control computer
- **Tests performed:** Resistance, propulsion and tracking tests, horizontal planar motion testing (Towing and tracking, CPMC), flow observation (paint and underwater TV), wake measurements, propeller open water tests, seakeeping tests (in regular or irregular waves), measurement of forces and pressures acting on hulls or offshore structures, rolling tests, mooring tests, static submarine tests, nonsteady submarine tests
- **Side Wave Generator:** A Snake type wavemaker consisting of 80 flaps each of 0.5m in width, for beam and oblique waves in the range from 20° to 160° wave direction. Regular waves, irregular long- and short-crested seas, wave packets, user-defined wave trains and spectra can be generated.

HSVA Hamburgische Schiffbau-Versuchsanstalt GmbH
Bramfelder Straße 164 | D-22305 Hamburg
Phone: +49 (0)40 69 203-0 | Fax: +49 (0)40 69 203-345
info @ hsva.de

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