

Name of organization University of California, Berkeley	Year of information updating 2025
Year established 1868 for university, tank built in 1960s	Year of joining the ITTC 2025
Address UC Berkeley Richmond Field Station (RFS) Buildign 275 – physical model test facility, Attn. Makiharju 1301 S 46th St, Richmond, CA 94804	Status in the ITTC
Contact details (phone, fax, e-mail) ME department. Send material with Attn. Prof. Makiharju Tel: 510-642-1338 Fax: 510-642-6163	Website https://flow.berkeley.edu/physical-model-test-facility/

Type of facility Towing / wave tank	Year constructed/upgraded Upgraded in 2023-2026
Name of facility UC Berkeley physical model test facility	Location (if different from the above address)

Main characteristics (dimensions of tank/basin/test section; for simulators: full mission, part task or desk top)
 2.40 m wide, 1.80 m deep, 64 m long tow tank with a flap type wave maker and 5-piece adjustable perforated beach. Special features are full-high viewing windows at mid tank, and top 2/3 viewing windows at the beach. The maximum speed of occupied carriage is 1.75 m/s. An unmanned carriage has a maximum speed of 8 m/s, and for some tests 12 m/s can be achieved. Wave maker capable of generating O(10cm) amplitude waves up to O(1 Hz).

Drawings of facility
 Top-view plan

Corss-section-view plan

Detailed characteristics (carriages, wave/current/wind generators, instrumentations, etc.)

- Flap type wave maker and 5-piece adjustable perforated beach.
- Wave maker capable of generating O(10cm) amplitude waves up to O(1 Hz).
- Special features are full-high viewing windows at mid tank, and top 2/3 viewing windows at the beach.
- The maximum speed of occupied carriage is 1.75 m/s.
- An unmanned carriage has a maximum speed of 8 m/s, and for some tests 12 m/s can be achieved.
- Wind array (no specs available)
- Instrumentation available from associated laboratories:
 - Wave probes
 - Ultrasonic velocity profilers
 - High speed cameras
 - Particle image velocimetry
 - Laser doppler velocimetry

Applications (Tests performed)

- Ship model testing
- Wind turbine platform model testing
- Renewable energy testing, WECs, and misc.
- Platform component testing
- Drone testing (flying, swimming, diving, surface breaching)
- Fundamental research on flat plate drag, air lubrication, etc.

Published description (Publications on this facility)

n/a