



O.H. Hinsdale Wave Research Laboratory

OREGON STATE UNIVERSITY • COLLEGE of ENGINEERING

Tsunami Wave Basin

The Tsunami Wave Basin is designed as a shared-use facility to understand the fundamental nature of tsunami inundation and to improve our numerical tools for tsunami mitigation:

- tsunami inundation and overland flow
- tsunami-structure impact
- tsunami debris flow and scour
- harbor resonance

In addition to tsunami research, the facility is used for general testing of coastal infrastructure and for nearshore processes research.

Wave Basin Dimensions

- Length: 48.8 m 160 ft
- Width: 26.5 m 87 ft
- Max depth: 1.37 m 4.5 ft
- Freeboard: 0.6 m 2.0 ft

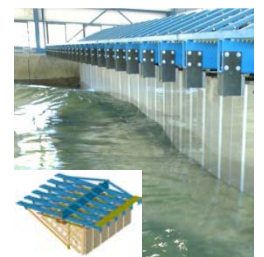
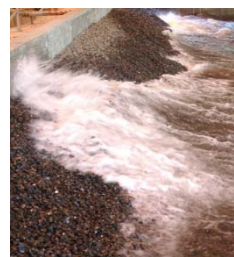
Wavemaker

- Type: Piston-type, Electric motor
- Waveboards: 29 boards, 2.0 m (6.6 ft) high
- Wave types: Regular, Irregular, Tsunami, Multidirectional, User defined
- Period range: 0.5 to 10 seconds
- Max. Wave: 0.8 m (2.6 ft) in 1 m (3.3 ft) depth
- Max. Stroke: 2.1 m (6.9 ft)
- Max. Velocity: 2.0 m/s (6.6 ft/s)



Supporting infrastructure

- 7.5 T capacity bridge crane
- Instrumentation carriage, spans 26.5 m
- Unistrut installed in floor and sides to secure models
- Two access ramps, 14 ft width (4.2 m)
- Steady flow currents installed on project-by-project basis



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