

INTERNATIONAL TOWING TANK CONFERENCE CATALOGUE OF FACILITIES
TOWING TANKS, SEAKEEPING AND MANOEUVRING BASINS

AUSTRALIAN MARITIME COLLEGE

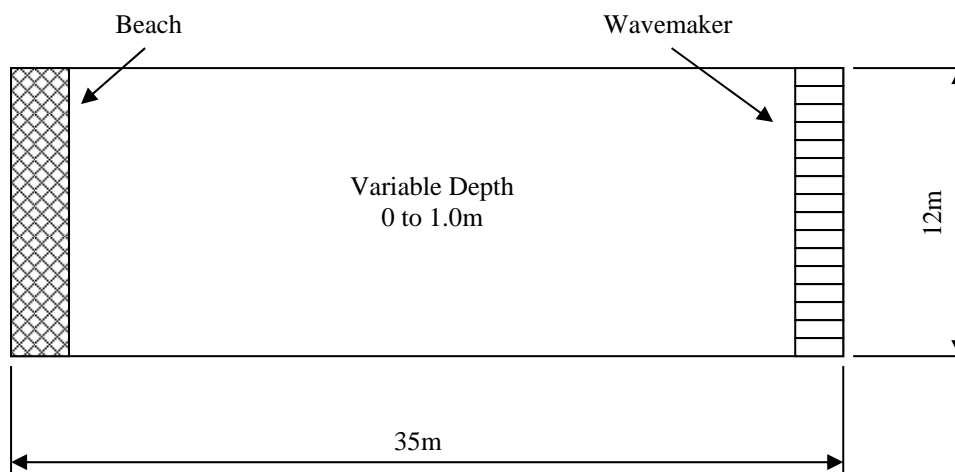
AUSTRALIA

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MODEL TEST BASIN (2001)



Not to scale

DESCRIPTION OF CARRIAGES: One lightweight unmanned, winch motor driven

TYPE OF DRIVE SYSTEM AND TOTAL POWER: winch cable driven, controlled by digital converter with PLC

MAXIMUM CARRIAGE SPEED: 3.8 m/s

OTHER CAPABILITIES:

WAVE GENERATION CAPABILITY: regular and irregular.

WAVEMAKER TYPE AND EXTENT: multi-element (16), piston type, 12.0 m

BEACH TYPE AND LENGTH: corrugated surface beach with multiple levels, adjustable height/slope beach, both 12m wide. Additional adjustable wave damping panels, 12m wide. Removeable side beaches

METHOD OF IRREGULAR WAVE GENERATION: digitally filtered white noise, or summation of sine waves

WIND GENERATION: portable wind generator consisting of 20 individually controlled fans

OTHER CAPABILITIES: short-crested waves, solitary waves, user defined sequences

INSTRUMENTATION: Qualisys digital video 6DOF motion measurement system, Digital PC computer with in-house data acquisition and analysis software, custom signal conditioner and A/D converter, 32 channel capability at nominal 200Hz sample rate

MODEL SIZE RANGE: ship lengths from 1.5 m to 6.5 m
floating structures up to 4.0 m diameter

TESTS PERFORMED: experiments in finite water depths.
far field waves and wash.
wave induced motions on ships and floating structures.
ship-ship and ship-bank interactions.

PUBLISHED DESCRIPTION: