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| **Name of organization**<br>Institute of Naval Architecture and Ocean Engineering<br>Universidad Austral de Chile | **Year of information updating**<br>2021 |
| **Year established**<br>1954 | **Year of joining the ITTC**<br>2017 |
| **Address**<br>Campus Miraflores, General Lagos 2086, Valdivia, Chile | **Status in the ITTC**<br>Member |
| **Contact details** (phone, fax, e-mail)<br>Phone :+56 63 2221864<br>E-mail: gonzalo.tampier@uach.cl | **Website**<br>https://ingenierianavaluach.cl/instituto-de-ciencias-navales-y-maritimas/canal-de-ensayos/ |

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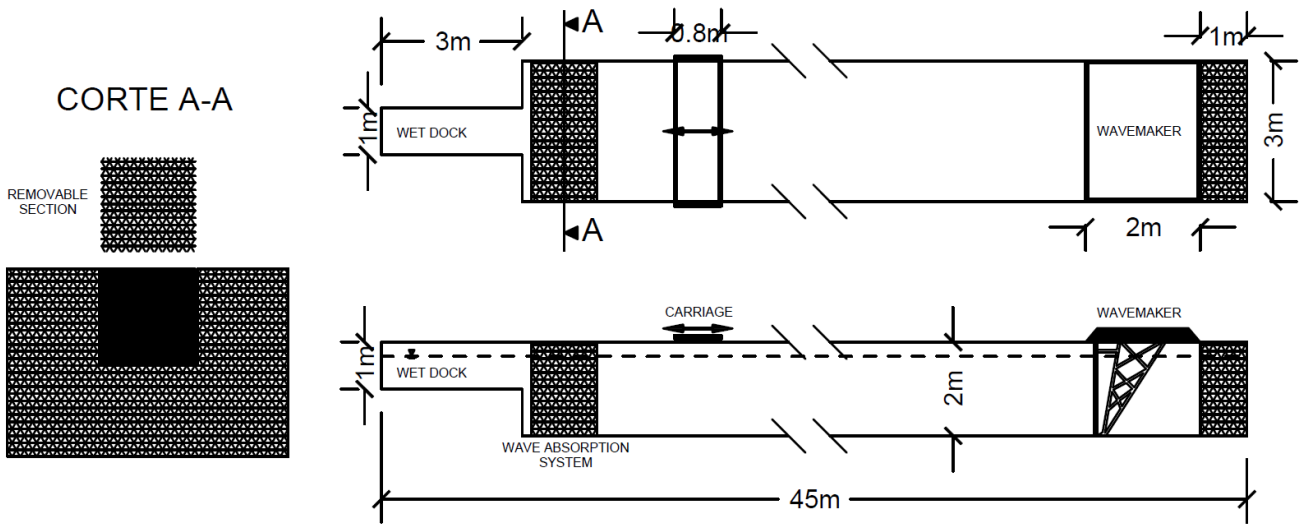
|---|---|
| **Type of facility**<br>Towing Tank/Wave Tank | **Year constructed/upgraded**<br>**1973/2020** |
| **Name of facility**<br>Canal de Ensayos Hidrodinámicos UACh | **Location** (if different from the above address)<br>Campus Miraflores, Edificio 100, General Lagos 2086, Valdivia, Chile |

**Main characteristics** (dimensions of tank/basin/test section; for simulators: full mission, part task or desk top)
Length: 45 meters
Width: 3 meters
Depth: 2 meters

**Drawings of facility**



**Detailed characteristics** (carriages, wave/current/wind generators, instrumentations, etc.)
**Carriage:** Unmanned aluminum structure mounted on linear bearings, driven by a 5 kW power servomotor. Maximum carriage speed: 5 m/s

**Wave Maker**
Type: hybrid piston/flap type wave maker including active absorption, mechanically driven by a 6 kW power servomotor controlled by AqwaSys 7 software. Capable of generation of regular and irregular waves including several spectrum models such as Jonswap and PM.

Capabilities:

Shallow water condition: $H_{max}$=0.25m and T=3.5s
Intermediate water condition: $H_{max}$=0.4m and T=3s
Deep water condition: $H_{max}$=0.3m and T=2.5s

Passive absorption side: honeycomb type wall intended to dissipate waves on the whole range of frequencies and water depth of the tank.

**Motion Capture System**
4 cameras Miqus type from Qualisys controlled by the Qualisys Track manager software

**General Equipment**
1 6Dof load cell 100kg capacity
2 Unidirectional load cells with 12kg and 72 kg capacity
4 S type load cells 50 kg capacity submersible
4 Akamina wave gages
6 MicroSonic ultrasonic sensors
2 Underwater cameras

Model size range: 0.5 to 2.5 meters

**Applications** (Tests performed)
Ship Resistance Tests on calm water
Ship Resistance Tests on regular/irregular waves
Seakeeping
Floating structures´ hydrodynamic response including WEC, FOWT, Aquaculture cages
Green water
Slamming test

**Published description** (Publications on this facility)
http://ingenieria.uach.cl/index.php/servicios/servicios-externos/laboratorio-de-hidrodinamica-naval-canal-de-pruebas