

<b>Name of organization</b> Ecole Centrale de Nantes	<b>Year of information updating</b> 2022
<b>Year established</b> 1917	<b>Year of joining the ITTC</b>
<b>Address</b> 1 rue de la Noë 44321 Nantes cedex 3 -France	<b>Status in the ITTC</b> Member
<b>Contact details</b> (phone, fax, e-mail) Facility manager : Jérémy OHANA ( <a href="mailto:hydro-facilities@ec-nantes.fr">hydro-facilities@ec-nantes.fr</a> )	<b>Website</b> <a href="https://lheea.ec-nantes.fr/test-facilities/ocean-tanks/towing-tank">https://lheea.ec-nantes.fr/test-facilities/ocean-tanks/towing-tank</a>

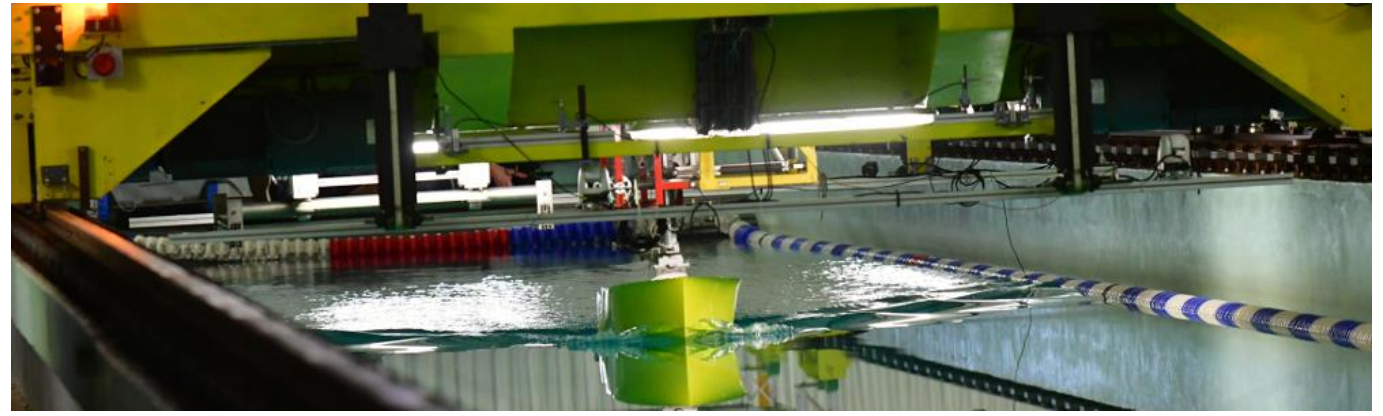
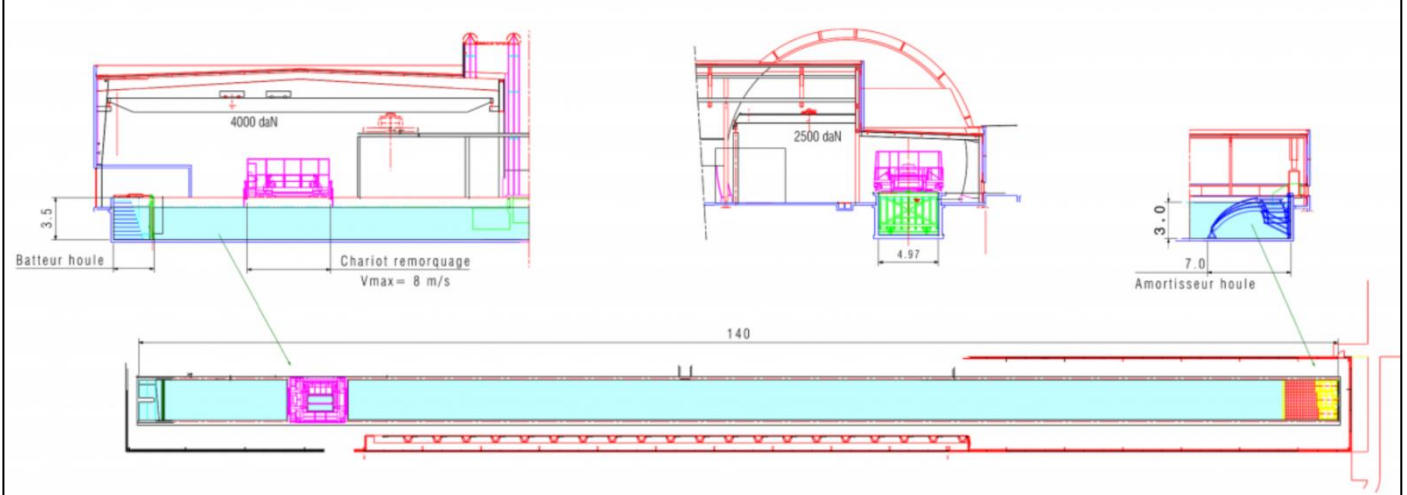
<b>Type of facility</b> Towing Tank	<b>Year constructed/upgraded</b> Built 1977 Extended 2001
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<b>Name of facility</b> BDT - Bassin De Traction	<b>Location</b> (if different from the above address)
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**Main characteristics** (dimensions of tank/basin/test section; for simulators: full mission, part task or desk top)

The towing tank is used for research, education and commercial experiments.  
Main dimensions: 140 x 5 x 3 [m]

**Drawings of facility**



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

### Carriage:

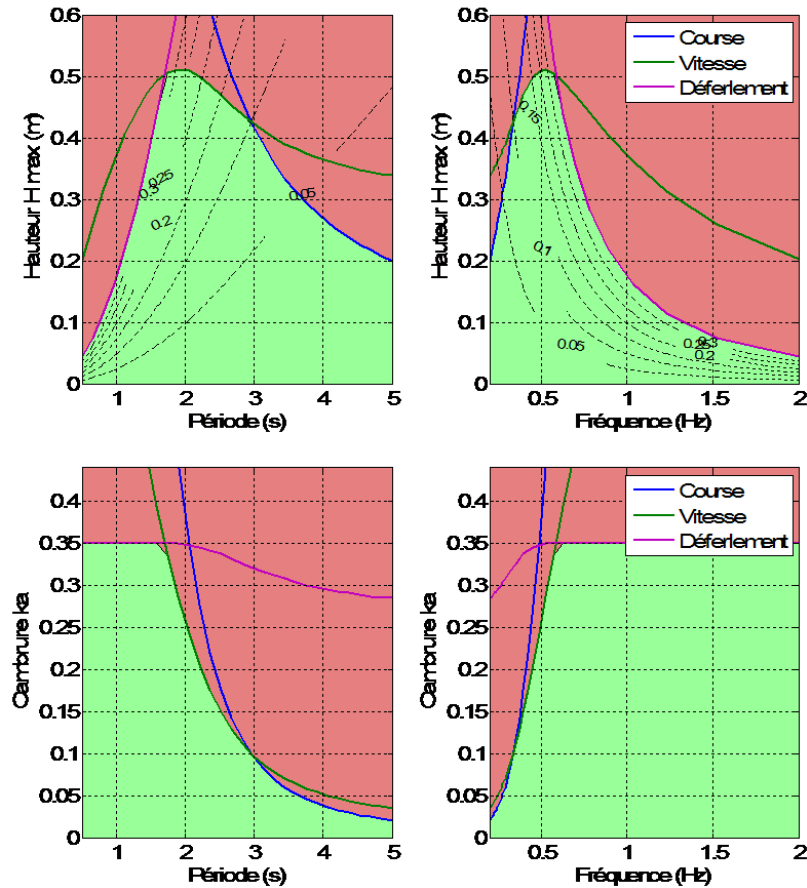
Maximum carriage speed: 8 [m/s]

Can run in both directions

### Wavemaker:

Hydraulic piston wavemaker

Passive beach



### Instrumentation:

Several dynamometers (3 components, 6 components)

Hexapod

Qualisys Motion Capture (both above and below water)

Remotely operated HD cameras (both above and below water)

### Other:

Overhead crane covering the central area of the tank, SWL 2.5 tonnes

## Applications (Tests performed)

Ship resistance

Seakeeping

Hull form optimization

Towed devices

Manoeuvrability

Intact and damaged stability

Renewable energies (wind, tide and waves)

Sports engineering

Biomechanics

Fluid/Structure interactions

**Published description** (Publications on this facility)