Name of organization National Maritime Research Institute	Year of information updating 2016
Year established 2001 (1916 established as the Ship Equipment Inspection S	Year of joining the ITTC tation)
Address 6-38-1, Shinkawa, Mitaka, Tokyo 181-0004, JAPAN	Status in the ITTC
Contact details (phone, fax, e-mail) [FAX] +81-422-41-3258 [E-mail] info2@nmri.go	.jp Website http://www.nmri.go.jp/english /research_facilities.html
Type of facility	Vear constructed/ungraded

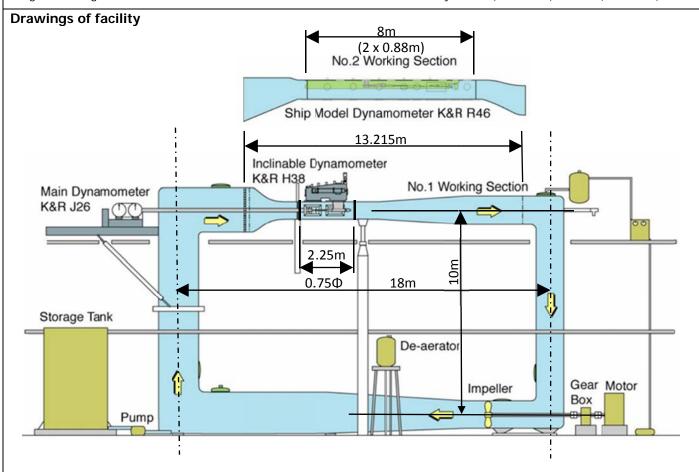
Type of facility
Cavitation Tunnel

Name of facility
Large cavitation tunnel

Year constructed/upgraded
1975

Location (if different from the above address)

**Main characteristics** (dimensions of tank/basin/test section; for simulators: full mission, part task or desk top) Length:18m, hight:10m, Max. and Min. Abs. Presuure: 196kPa, 4.9Pa, Max.velocity: 20m/s(No.1 W.S.), 6.5m/s(No.2 W.S.)



## **Detailed characteristics**

Description of facility: kempf and Remmers, vert. plan, closed recirculation. Type of drive system: 4-bladed axial flow impeller with inverter control system

Total motor power: 355kw, 1150rpm

Working section Max. velocity: 20m/s(No.1 working section), 6.5m/s(No.2 working section)

Max. and Min. Absolute presser: 196kPa, 4.9kPa Cavitation number range: sigma= 0.2 to 10

Instrumentation: 3 kinds of propeller dynamometer, 5 hole pitot tube, various pressure sensors, laser Doppler velocimeter and High-speed camera system.

Type and range of torque and thrust dynamometer:

T range ±5884N Q range ±294Nm (Type J-26) ±1961N ± 98Nm (Type H-38) ± 687N ± 39Nm (Type R-46)

Propeller or model size range: diameter of propeller: from 150 to 400mm

## 250mm typical Length of ship model; 7m Max. 6m typical

## **Applications** (Tests performed)

- (1) propeller test in uniform flow and non-uniform flow by wire mesh screen and behind ship model
- (2) force and pressure distribution an hull, propeller blade, 2D or 3D wing, etc.

**Published description** (Publications on this facility) Report of SRI, Vol.14 No.1, 1977