

Name of organization <i>Krylov State Research Centre</i>		Year of information updating <i>2016</i>
Year established <i>1894</i>		Year of joining the ITTC <i>1955</i>
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Type of facility <i>Cavitation tunnel</i>	Year constructed/upgraded <i>1959</i>	
Name of facility <i>High-Speed Cavitation Tunnel</i>	Location —	
Main characteristics (dimensions of tank/basin/test section; for simulators: full mission, part task or desk top) <i>Length of test section – 4 m, Diameter of test section – 1.2 m; for simulators: full mission</i>		
Drawings of facility		
<p>1 - the impeller electric motor; 2 - impeller; 3 - diffuser; 4 - test section; 5 - the confuser; 6, 7 - means of equalization of a flow; 8 - dump tank.</p>		
Detailed characteristics (carriages, wave/current/wind generators, instrumentations, etc.)		
Instrumentations: <i>Three-components a propeller dynamometer;</i> <i>Dynamometer for a dual-purpose nozzle;</i> <i>Propeller hydraulic drive.</i>		
<i>Water flow velocity in test section:</i>	<i>1 ÷ 30 m/s;</i>	
<i>Propeller speed:</i>	<i>±50 1/s;</i>	
<i>Max. diameter of tested propellers:</i>	<i>0.45 m;</i>	
<i>Max. diameter of tested model:</i>	<i>0.4 m;</i>	
<i>Operating pressure in test section:</i>	<i>(-0.9 ÷ 1.8) · 10⁶ Pa;</i>	
<i>Minimum cavitation index:</i>	<i>0.1;</i>	

Applications (Tests performed)

1. *Investigations into the influence induced by cavitation of hull, rudders, fins & propulsive units on hydrodynamic (positional) characteristics of models.*
2. *Determination of performance curves on models of propellers and waterjets in open water.*
3. *Investigations into the influence induced by cavitation of foil system's elements on hydrodynamic characteristics of these systems.*
4. *Tests of exhaust gas systems in submersibles under supercavitation (natural and artificial).*

Published description (Publications on this facility)

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