

Name of organization Bulgarian Ship Hydrodynamics Centre		Year of information updating 2016
Year established 1976		Year of joining the ITTC 1975
Address Bulgaria, Varna 9003, William Froude Str. 1		Status in the ITTC AC member
Contact details (phone, fax, e-mail) Phone +35952370501; Fax +35952370514; e-mail: office@bshc.bg		Website www.bshc.bg
Type of facility WIND TUNNEL	Year constructed/upgraded 1989	
Name of facility MINIAT	Location (if different from the above address)	
Main characteristics (dimensions of tank/basin/test section; for simulators: full mission, part task or desk top) Closed circuit subsonic aerodynamic tunnel with open working section Length - 9680 mm Breadth - 1400 mm Height - 2470 mm Air flow speed , $5 < C < 66\text{m / s}$ Re number - $3 \cdot 10^6$		
Drawings of facility Top-view plan Corss-section-view plan		

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

PC controlled drive system for constant flow speed or constant rpm of impeller

Outlet section : ELLIPSE - a = 800 mm , b = 466mm WS length L =950mm

Max. model dimensions

Length - 600 mm

blunt body diameter : 120 mm

Instrumentation:

PC controlled Scanivalve system - 64 channel pressure scanner

6 – component balances

PC controlled XYZ coordinate system for flow measurements

ALFA and BETA coordinate system

Instrumentation Amplifiers with Filters

Measuring System - PC with NI Multifunctional DAQ Cards and Data Acquisition software based on LabView

Flow visualization unit (smoke generator)

Cameras for High Quality Video and Photo Documentation of the Experiments

High Speed Camera

Applications (Tests performed)

- Calibration of standard instrumentation for measuring of fluid flow parameters
- Drag and lift forces on structures and elements
- Wind energy utilization devices
- Industrial aerodynamics
- optimization of
- Waterborne vehicles, rudders, fins, skegs, etc.

Published description (Publications on this facility)

1. BSHC Brochure, last edition 2014

2. Proceedings of the Scientific Session dedicated to the 40-th Anniversary of BSHC, October 2016