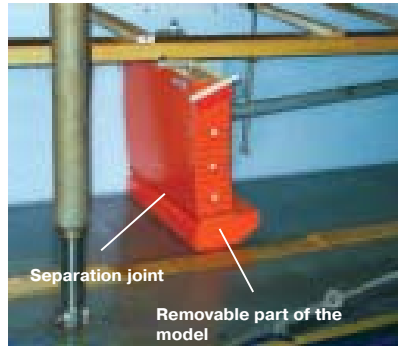


AEROHYDRODYNAMICS

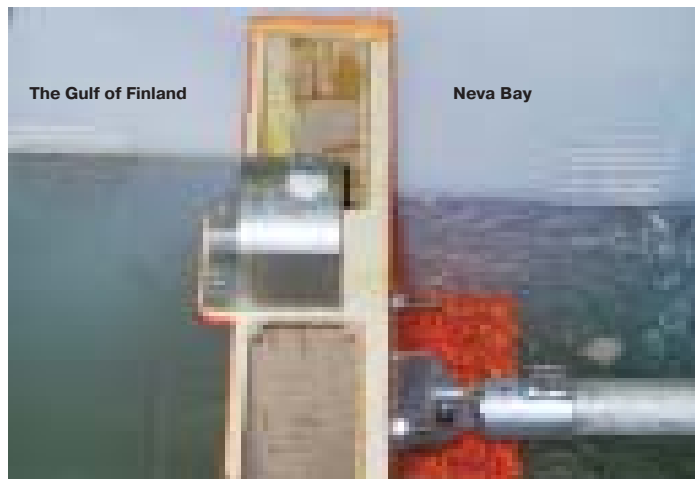
STUDIES TO SUPPORT DEVELOPMENT OF FLOOD PROTECTION BARRIER

Efficiency of flood-protection barriers is mostly dependent on the reliable operation of gates that close navigation passes for high water periods. The Krylov Institute has carried out a series of design and experimental studies for the gate dynamics (floating gate) for the main navigation pass, which enabled to elaborate proposals on the gate shape eliminating its damage at taking the bottom at any predicted flood level and waves intensity.



Flood gate section

Experimental investigations of flood gate dynamics



AEROHYDRODYNAMICS

DETERMINATION OF WIND LOADS ON THE BUILDING STRUCTURES

Due to the beginning of intensive construction of high buildings of original design in Saint-Petersburg, the Krylov Institute has developed the hardware systems for the tests to be performed for determination of total and distributed loads on the building structures

and also for visualization of the buildings flow about at the hydrodynamic tunnel. Investigations of loads for the high building and the structure of flow about for a group of buildings at various angles of water flow in have been carried out as applied to the housing project at the Finnish Gulf coast. The outcomes of investigations have been given to the project developers.



A group of high buildings. General view

Visualization of flow around a complex of buildings at hydrodynamic test rig

Visualization of flow over a complex of buildings on hydrodynamic test rig

