



JSC “VNIIAEN”

Research and Design Institute
for Atomic and Power Pumpbuilding



Pumpbuilding cluster of Sumy



Sumy State University

Training of specialists and academic science in the field of pump engineering

Applied scientific researches, design and engineering of pumps



Research and Design Institute for Atomic and Power Pumpbuilding (JSC "VNIIAEN")



JSC "Nasosenergomash"

Pumps manufacturing



Public Joint Stock Company "Sumy Machine-Building Science-and-Production Association"



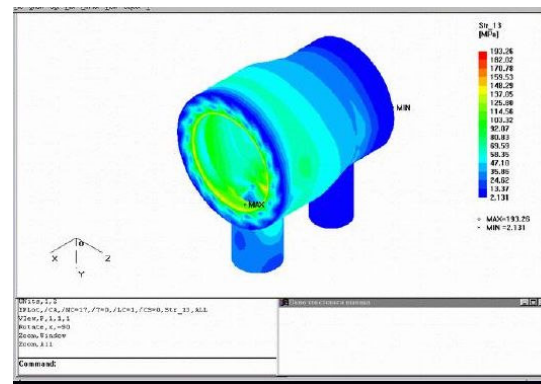
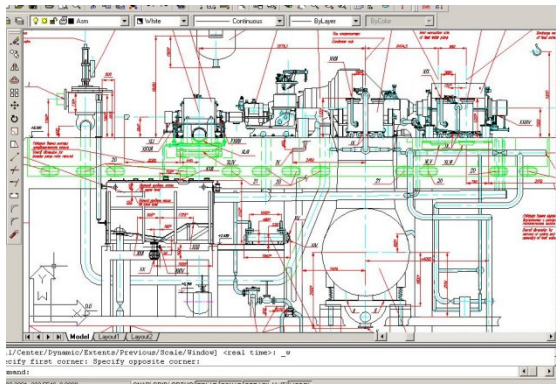
JSC “VNIIAEN” today:

- more than 60 years of professional work in the field of pump engineering
- leading organization in Ukraine in the domain of research and technical support in pump engineering
- for more than 15 years our company has been properly certified by the government as a scientific institution
- being a public enterprise, in accordance with the relevant decisions of the Cabinet of Ministers of Ukraine, JSC “VNIIAEN” has been added to the List of Companies that are of Strategic Importance for Economy and National Security, with its test center included to the State Register of scientific facilities that form the national resources
- on JSC “VNIIAEN” basis the Technical Committee for standardization TK-21 “Rotordynamic and positive displacement pumps” has been organized. Moreover, JSC “VNIIAEN” is a collaborative member of the Technical Committee for standardization TK-79 “Atomic Power”
- an approved vendor for state enterprise “National Nuclear Energy Generating Company “Energoatom” (NNEGC “Energoatom”)
- copyright owner of design documentation for equipment developed for different manufacturers over the years
- in JSC “VNIIAEN” the affiliate of the Applied Fluid Mechanics Department of Sumy State University works to train future specialists for pump engineering



Research and development

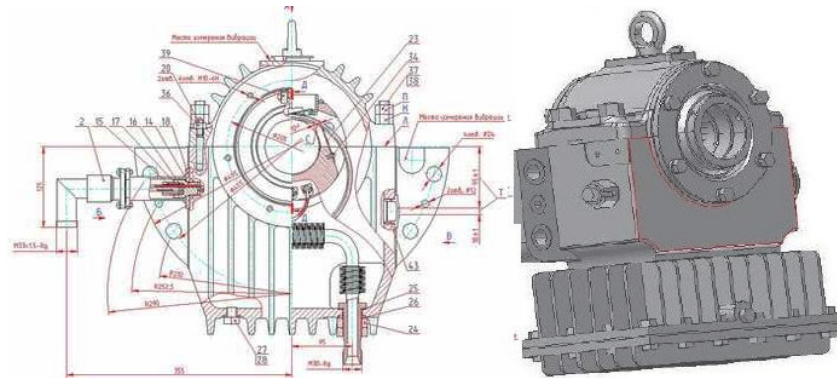
- development of engineering design documentation in the field of centrifugal pumps and pump units on their basis as well as pump unit control systems
- design of research and test stands
- strength analyses and hydrodynamic design of the equipment being developed
- design of updated assemblies of centrifugal pumps, including hydraulic devices for tightening joints of thermal and mechanical equipment, and flexible ring and plate-type couplings





Scientific and technical research on:

- development of highly economical hydraulic components of centrifugal pumps
- development of seals and pump bearings
- vibration monitoring and vibroacoustics of pumping equipment
- unification of pumping equipment
- development of national and industrial standards and regulations to be used in the field of pump engineering





Technical expert services

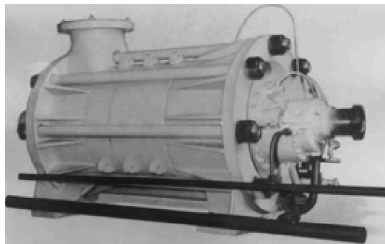
- evaluation of technical condition of pumping equipment based on strength properties, and determination of its residual useful life
- inspection of pumping equipment for the purpose of extending its service life



Pump nomenclature of JSC “VNIIAEN”

JSC “VNIIAEN” has experience in designing of more than 600 pump dimensional series for more than twenty branches of industry

- Thermal power – 15 dimensional series
- Nuclear power – 14 dimensional series
- Oil transportation – 9 dimensional series
- Water supply – 9 dimensional series
- Chemical industry – 9 dimensional series
- Pumping of ground and sewage water – 7 dimensional series
- Coal and coal-mining industry – 5 dimensional series
- Oil refining industry – 5 dimensional series
- Sugar refining industry – 5 dimensional series
- Crude oil production – 4 dimensional series



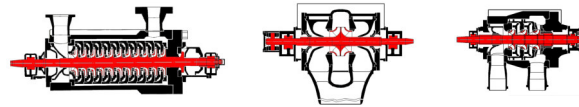


Design configuration of JSC “VNIIAEN” pumps

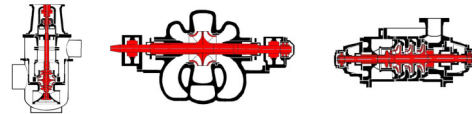
NPP reactor coolant pumps



Feed water pumps for NPP and CHPP



Condensate pumps for NPP and CHPP



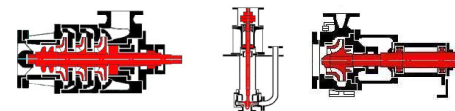
Safety injection pumps for NPP



Service water pumps for NPP and CHPP



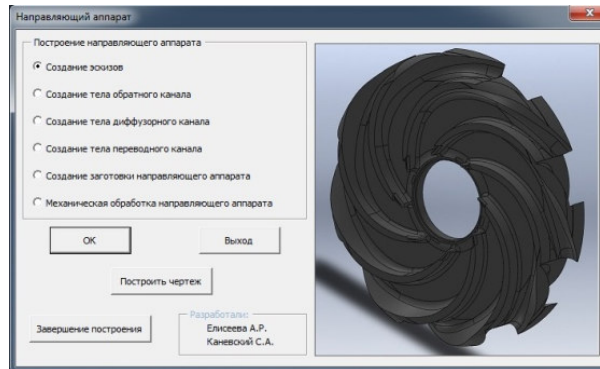
Oil pumps for NPP





Some accompanying activities

- software module development for parametric 3D modeling



- remote access control systems





Contacts

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