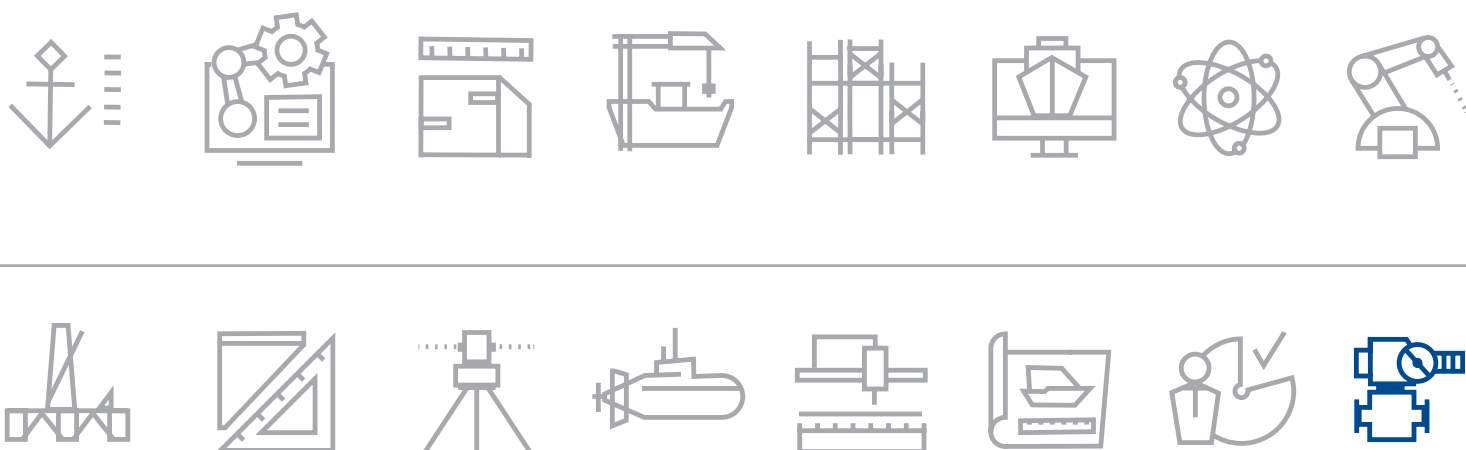


# SHIPBORNE VALVES AND FITTINGS



## ARMAS DESIGN BUREAU

For 80 years, Design Bureau «Armas» (a structural unit of JSC «Shipbuilding & Shiprepair Technology Center») has been engaged in design, manufacture, and repair of shipborne pipeline valves and fittings for naval ships, civil marine equipment and machinery, oil-and-gas industry, etc. All necessary licenses for that have been obtained.

The Design Bureau includes:

- Specialized design departments which are engaged in designing modern shipborne valves and fittings of all types and purposes for naval ships and civil marine equipment and machinery, in developing working, operational and repair documentation, and in designer's field supervision;
- Research-and-test complex which performs various tests and trials of valves and fittings in liquid and gaseous agents, like tightness tests, operability tests, vibration-and-impact durability tests, climatic tests, recording of flow- and vibro-acoustic parameters, including those for hydro-dynamic noise;
- Production complex for valves and fittings manufactures models and pilot samples and is capable of serial production of shipborne valves and fittings, filters, and nipple joints.



Qualification of employed specialists and many-year experience ensure development and manufacture of modern and reliable shipborne valves and fittings of high quality.

Quality management system of the enterprise has been certified for compliance with requirements of GOST R ISO 9001-2001 and GOST R B15.002-2003.

If required by the customer, manufactured items go through acceptance by representatives from the Russian Maritime Register of Shipping and Russian Ministry of Defence, the latter being accredited within the enterprise.

The enterprise provides post-sale servicing of manufactured products, which includes warranty service, repair, supply of spare parts, and necessary technical consulting.

### MODERN DEVELOPMENTS:



Rotary gate valve with electric drive, Dn 200, Pw 6.5-25



Flanged outboard valve with hydraulic drive and manual control, Dn 200, Pw 1.0 MPa



Regulating ball cock with electric drive and backup manual control, Dn 50, Pn 40



Ball outboard valve with hydraulic drive, Pn 40

### SERIAL PRODUCTION:



Shutoff ball cock with manual control, Dn 50, Pr 10 MPa



Quick-opening nonreturn-shutoff straightway flanged valve, Dn 40, Pr 1.0 MPa



Pneumatic three-way distribution choke valve with electromagnetic and manual drives, Dn 3, Pw 6-55



## MANUFACTURE OF SHIPBORNE PIPELINE VALVES AND FITTINGS



CNC machining center DMU 125



Twin-pillar vertical turning lathe SKD 25D

## TESTS OF SHIPBORNE PIPELINE VALVES AND FITTINGS



Impact-and-shot plant VSTS-450/1000  
The plant is intended for determining resistance of valves and fittings to shocks and impacts



Electro-dynamic vibration test plant I255/SA7M  
The plant is intended for determining resistance and durability of pipeline valves and fittings to vibration



Acoustic-test stand for determining vibration-noise, hydro-dynamic and flow-rate parameters of shipborne valves and fittings by using water as conductivity agent  
The stand is intended for determining acoustic parameters of pipeline valves and fittings, such as levels of sound pressure, vibration and hydro-dynamic noise, by using water as conductivity agent

- Design of shipborne pipeline valves and fittings, development of complete sets of working and operational documentation by specialized design departments
  - Assurance of increased reliability and extended service life of pipeline valves and fittings for high-pressure air systems
  - Improvement of vibro-acoustic and hydro-dynamic properties of shipborne pipeline valves and fittings
  - Introduction of new materials (sealing assemblies made of composite and ceramic materials, components made of wind-up composite materials)
  - Application of additive technologies in manufacturing products for shipborne engineering
  - Introduction of new electronic components of Russian production with improved operating parameters for new generation of shipborne pipeline valves and fittings
  - Performance of on-stand tests, including certification tests, for determining the compliance of shipborne pipeline valves and fittings with requirements of normative documentation
  - Designer's field supervision, warranty service, repair works, certification
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