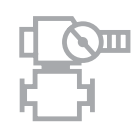
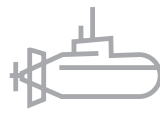




MECHANICAL INSTALLATION PROCEDURES AND PIPE PROCESSING TECHNOLOGIES



JSC “Shipbulding & Shiprepair Technology Center“ for more than 30 years develops procedures for assembly and installation of power plants, mechanisms, special complexes, systems and pipelines.

JSC SSTC OFFERS:

- Procedures for modular installation of equipment for ships construction with appliance of computer-aided 3D modeling of technological processes
- Procedures for assembly, loading, aligning and fixing of all types of main and auxiliary power plants (including nuclear power plants, with installation of biological shield)
- Procedures for propulsion systems installation and calculation of technological parameters for shaft lines alignment
- Procedures for installation of equipment on unprocessed foundations and supports with application of polymeric compensators
- Procedures for installation and repair of ship mechanisms and equipment
- Procedures and equipment for automated manufacture of pipelines, applied when constructing and repairing ships
- Ship electrical protection technologies
- Procedures for ensuring of cleanliness and flushing of critical systems
- Procedures for manufacturing, installation and repair of weapons systems
- Procedures for aligning of ship's reference plates and weapons systems
- High-precision measurement procedures for shipbuilding and ship repair
- Methods and calculations for estimation of assemblability and interchangeability of equipment and units
- Procedures for conducting control measurements on ships
- Design of joints for shaft lines, propellers and liners with shaft lines
- Design of bellow compensators for ship's pipelines
- Design of pipe processing, mechanical installation and repair facilities with appliance of simulation modeling
- Design of technological equipment for:
 - Assembly, installation and repair of weapons systems
 - Manufacture of pipes and flushing of systems
 - Ship equipment installation



SERVICES

- Engineering support of developed technologies and technological equipment
- High-precision measurements when constructing and repairing ships:
 - Control measurements of different accuracy rates with application of non-contact 3D measuring systems
 - Determination of volumes of complex-shaped ship compartments
- Alignment of rotating mechanisms with application of laser-computer system
- Manufacture and testing of designed technological equipment
- Supervised installation of shipboard equipment and devices on polymer backing pieces made of EPM material.

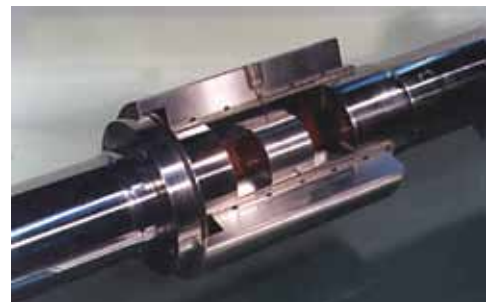


MANUFACTURE

- Antifriction material Anita-40 for application in heavy duty composite stern bearings, as well as in self-lubricating bearings of SAMM-type machines and mechanisms

Material is mainly manufactured as square section blanks sized 170×170 mm and 10-40 mm thick.

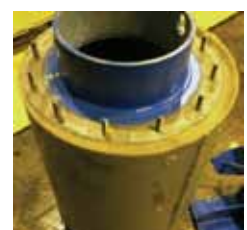
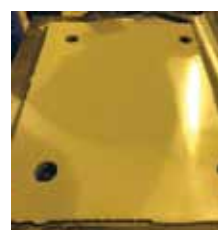
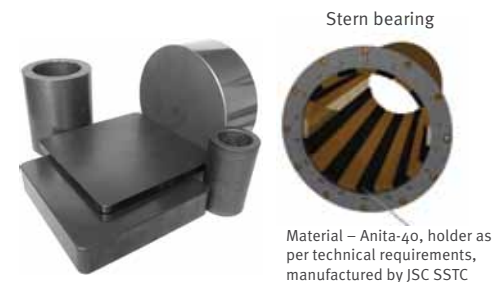
Parameter name	Value	
	«Anita-40»	«Anita-40N»
Friction ratio when lubricated with salt water	0.006	0.006
Density, g/cm ³	1.8—2.0	1.9—2.2
Compressive strength, MPa, not less than	50	45
Hardness, N/mm ²	85	80



- Self-lubricating journal bearings
Bearings SAMM-3 and SAMM-4, which use self-lubricating anti-friction substances Anita-40 and Anita-40N accordingly, are intended for heavily loaded friction units of rotary, alternating and reciprocating motion which operate in sea water or alternately in sea water and air.
- Two-component composite material EPM (TU 2225-093-07502259-2014) can be used as mounting clearance compensator during construction, repair, and modernization of ships, vessels, and submarines of all types and purposes and for the entire range of shipboard equipment, assembly units, devices and mechanisms, as well as for shaftings and rudders.

The material is supplied in uncured state as two separate components: the base (component A) in metal buckets and the curing agent (component B) in plastic bottles. One set of polymer material EPM provides 4 litres of potting volume.

Parameter name	Value
Minimum compression strength	140 MPa
Density, g/cm ³	1650±50 kg/m ³
Barcol hardness	50



MAIN PARTNERS:

JSC CDB ME Rubin
JSC SPBME Malachite
JSC CDB Aisberg
JSC Severnoye Design Bureau
FSUE Research Technological Institute named after A.P. Aleksandrov
JSC NIKIET
JSC MSRIR Altair
JSC Concern CSRI Elektropribor
JSC CMDB Almaz
JSC KB SM
JSC Concern Granit-Elektron
JSC Concern Sea Underwater Weapon – Gidropribor
JSCo PO Sevmash
JSC Shipbuilding Plant Severnaya Verf
JSC Admiralty Shipyards
JSC Yantar Baltic Shipyard
JSC Far Eastern Shipyard Zvezda
JSC Shiprepairing Center Zvyozdochka
LLC Baltisky zavod – Sudostroenie
JSC Obuhov State Plant
JSC Afrikantov Experimental Design Bureau for Mechanical Engineering
JSC Krasnoye Sormovo Shipyard
FSUE Krylov State Research Center
JSC Amur Shipbuilding Plant



7, Promyshlennaya Street, St. Petersburg, 198095, RUSSIA
Phone: +7 (812) 786-2610, Fax: +7 (812) 786-0459
e-mail: inbox@sstc.spb.ru www.sstc.spb.ru