



# LLC ARGUS LIMITED

CONSTRUCTION COMPANY

# INTEGRATED SOLUTIONS FOR PIPELINE AND INFRASTRUCTURES CONSTRUCTION REHABILITATION AND REPAIRS







# **Engineering-consulting Evaluation of integrity of the OBJECTS**

- Evaluation of the object as a whole and its components, using a variety of non-destructive inspection technologies and mathematical modeling.
- ✓ Supervising inspection of the facility, including the choice of technology in accordance with the specifics of each site (echo, wave methods, ultrasound, X-ray (including digital and other)
- Determination of corrosion condition and evaluation of mechanical integrated strength of the object, taking into account the risks at the time of repair and maintenance
- Evaluation of the integrity of the components and the object as a whole, involving mathematical methods while considering the fatigue strength of structures
- The choice of repair technologies, preparation of work plan for various sectors of the facility, including the complete replacement of the existing and/or repair and restoration of operability.









# **Engineering-consulting**



- Preparation of project documentation (including design and detailed engineering).
- Preparation of executive technical documentation. Certification of technology, personnel and equipment









### **Contractual works**

Contractor works can be carried out either directly by divisions of "Argus" Group or by our trusted partners on the terms of sub-contracting.











#### **Contractual works**

Construction of new facilities and repair of existing - a full cycle - (pipelines, tanks and storage, pumping and compressor stations, and etc.), including hydraulic and pneumatic testing.

- Carrying out repair work for replacement of sections of the plant with cutting out defective components and replacing with new ones (facility is stopped for maintenance)
- Carrying out hot repair work on operating facility. Repair of defective pipe sections (under working pressure), including areas with thru holes defects using composite and metallic materials







#### **Contractual works**

- Pipelines and infrastructure coatings rehabilitation works.
- Environmental projects (cleaning/washing) territory, equipment and structures for preventing pollution
- Oil Spill Recovery Systems
- Disposal and recycling of oil sludge









### Supply of equipment, materials and components

Thanks to the many years of working closely with a number of world leaders in the development of new technologies and the production of equipment and materials as well as ongoing feedback from our construction units and customers, not only we are able to use the most advanced technology ourselves and offer optimal solutions to our customers.

Such feedback from the manufacturers to builders and back allows us to reach successful conclusion of the most sophisticated technological solutions.

The whole range of proposed technological solutions, including equipment, materials and technical support (including warranty and post warranty services) can be roughly devided into the following categories:









#### Supply of equipment, materials and components

Equipment for earth moving works including: Preparation of trenches, horizontal directional drilling, horizontal drilling, grinding of rocky soil (preparation of "cushion"), backfilling.









Lifting equipment for work with pipes and other components including vacuum lifters.











#### Supply of equipment, materials and components

Equipment for welding works, including:

Various line-up clamps and mechanisms. Tools and equipment for pipe cutting, facing, induction heating, welding equipment and materials for manual, semi-automatic, mechanized and automatic welding of various technologies (SMAW, SAW, TIG, MIG, Pulsed MIG, FCAW-GS, FCAW-SS, MCAW-G and etc.)



























#### Supply of equipment, materials and components

Equipment for non-destructive and mechanical testing of welded joints, structures and different coating, including:

X-ray (analogical, digital, real-time), ultrasonic, penetrants, magnetic powder kits. Equipment for preparation of mechanical testing samples, toughness, strength and bending testers, Charpi- testers, impact values and others.

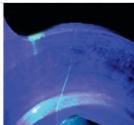










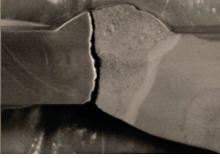


















#### Supply of equipment, materials and components

Equipment and materials for internal and external anti-corrosion coating and mechanical protection of pipelines and welded joints

Pipeline coating plants (anti-corrosion and weight coatings), in field pipelines coatings. Automatic welded joints protection coating with HSS and dual-dual components coating equipment. Pipe pre-heating, quality control of insulating coatings.



Equipment and materials for cathodic protection and SCADA systems.











#### Supply of equipment, materials and components

Complex equipment for pipelines internal cleaning, hydraulic/pneumatic testing and conservation.



Equipment and materials for the repair and rehabilitation of the pipelines.
 Air/Hydro- Vacuum excavators for local excavations;
 Complex equipment for re-coating of pipes (coating removal, surface preparation and application of the new

Complex equipment for re-coating of pipes (coating removal, surface preparation and application of the new coating)









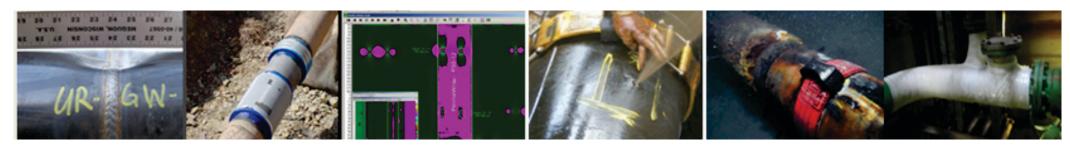


#### Supply of equipment, materials and components

Specialized equipment for safe coating induction disbondment and removal from metal surfaces (including pipelines, storage tanks).



Defects repair on the existing pipeline with composite materials of various purposes, including repair of thru hole defects under pressure.













### Supply of equipment, materials and components

Complex solutions for pipelines restoration by inserting inner tubes of various materials - relining technology (pipe in pipe).













# Technical support of sales and projects technical maintenance, training and certification

- Initial setup and start-up of of equipment
- Technical maintenance of equipment



- Training of personnel (operators, technicians and technical-engineers) and certification









