



### We change construction approach



### **Activity areas**

Engineering

Beluga Engineering & Technology Fleet

Beluga Marine

Projects Logistic

Beluga Projects Logistic EPC/EPCM

Beluga Construction

### Solutions

Complex projects

combinability of the machinery & equipment

Installation of oversized cargo at the different elevations

including below ground level

Without dismantling loadbearing structures

moving equipment into buildings

**Execution of works** 

in cramped conditions

Moving and heavy lifting of assembled equipment

without stopping production

Alternative to crane operations

due to greater mobility and compactness

# Complex engineering and logistics for industries





#### We reduce costs

using craneless lifting technologies and detailed elaboration of logistics schemes



#### We reduce time

of installation with fully assembled equipment at ground zero



### We execute works in cramped conditions

without dismantling the roofs of workshops and disturbing the thermal circuit



# We work in difficult weather conditions

taking into account natural areas, features of the landscape and the construction site



#### We minimize risks

of equipment damage and accidents



# We provide engineering and construction consulting

at the early stages of design engineering of industrial facilities and equipment

Design engineering and organization of heavy lifting, installation and transport works at:

- new construction
- operating production
- overhaul
- modernization or production expansion



### Technical strategy

for key industries



Technical audit, equipment selection, process modeling

Installation/dismantling of heavy process equipment

Replacement of assembled/disassembled equipment at various heights

**Horizontal movement** using skidding system or jacking

Large-scale assembly of industrial equipment

**Transportation, load-in, load-out,** project position installation

Factory relocation



Oil and gas



Chemical industry



Machinery



Power



Mining industry



Manufacturing industry



Metallurgy



Infrastructure



Ports and shipyards

### Engineering

### Beluga Engineering & Technology



- Planning of work execution, process flow charting, 3D modeling
- Route survey, transport and lifting equipment type selection, load calculation
- Design of cargo securing plan
- Design of rigging equipment
- Technical audit and optimization of existing projects
- Roll-in and roll-out projects (RO-RO method)
- Development of ship lifting and dredging projects
- Positioning process design for anchor and sluice systems and underwater objects



### Relocation and installation

Beluga Engineering & Technology



- Transportation by road, water and railway transport
- «Last mile» turnkey project execution: transshipment, transportation, discharging
- Moving over/under pipelines, overpasses and other construction and civil infrastructure objects
- Installation of industrial equipment: turbines, machine tools, generators, presses, etc. to project position
- SKD (large-scale) assembly of process equipment
- Installation/dismantling of bridge spans and transport infrastructure elements
- Lifting / lowering and moving of equipment using strand jacks, gantry and skidding systems



# Projects logistic Beluga Projects Logistic



- Transport engineering
- Transportation of special equipment, oversized and heavy industrial cargo
- Development and approval of road traffic organization procedure
- Obtaining a special permit for the oversized heavy cargo transportation on the territory of Russia and other countries
- Transportation by specialized road and railway transport
- Fleet chartering, organization of sea and river towing
- Obtaining emergency approvals (navigation after season closure)
- Customs services and insurance



### Fleet Beluga Marine



- Organization of sea and river towing
- Provision of towing services during mooring operations
- Chartering of special purpose vessels
- Positioning of ships and offshore facilities, anchor handling
- Offshore projects support
- Transportation of bulky and heavy cargoes by water transport
- Commercial and technical management of ships of the third owners
- Dredging and underwater technological operations



# EPC/EPCM Beluga Construction



- Development of engineering solutions and project documentation
- Procurement/supply of equipment and materials on a turnkey basis
- Organization of construction works
- Performance of certain types of construction and installation works by own strength or subcontracting
- Coordination of subcontractors
- Minimizing the risk of postponing project deadlines

#### Result:

- Construction process continuity
- cost-effectiveness and safety



# Consortium of BELUGA TEC partners — one-stop solution for the Client



We accumulate the potential of our partners in order to:

- + optimize the use of resources
- + create a unified transparent system of construction process management
- + engage as executors (co-executors) of a contract concluded as a result of a tender or under subcontracts

- Organization of procurement/supply of equipment and materials on a turnkey basis
- Transportation projects using water and land transport
- Realization of planned, overhaul and emergency repairs
- Rapid mobilization of transport and lifting equipment





### Solutions





# Installation at different elevations including below ground level

- + Assembling and lifting equipment in confined spaces
- + Parallel operation to reduce construction time
- + Lowering the load below ground level
- + Load positioning accuracy up to 1 mm



# Lifting and rigging of equipment without stopping production process

- + Load tilting without stopping production process
- + Dismantling and moving of assembled and disassembled equipment
- + Installation and relocation of equipment without dismantling of load-bearing structures and roofing
- + Execution of works in cramped conditions

### Solutions

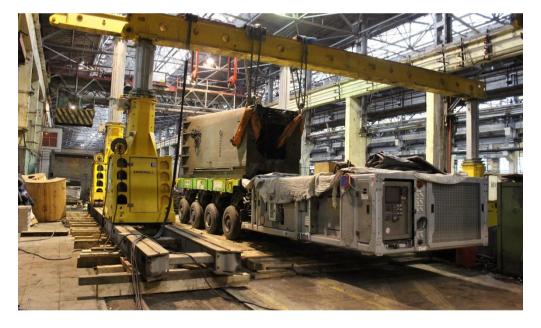




Moving equipment

without dismantling load-bearing structures

- + Lifting oversized heavy cargo to various heights
- + Horizontal relocation into technological cutouts
- + Replacement of equipment without dismantling existing production lines and communications



### Alternative to crane operations

due to greater mobility and compactness

- + Jack and Slide Solutions
- + Loading on transport, unloading on the foundation
- + SKD (large-scale) assembly of equipment

### Solutions







Complex projects
combinability of the fleet, transport and lifting equipment

- + Unique technical and engineering solutions
- + Roll-in and roll-out projects (RO-RO method)
- + Loading / unloading
- + Installation in the project position

- + Construction of temporary berths
- + Dredging
- + Diving operations at a depth of 35-40 m
- + Lifting operations

# Success stories Power



### Transportation and installation of the boiler drum Volgogradskaya TPP, 2022

Weight: 114 t Length: 19,6 m Lifting height: 27,8 m



#### Stator replacement Kalinin NPP, 2022

Weight: 333 t Length: 9 m Width: 5,2 m Height: 4,6 m



### Transportation of the reactor vessel Kursk NPP, 2021

Weight: 347,5 t Length: 11,3 m Width: 5,7 m Height: 5,3 m



### Stator replacement Novocherkasskaya SDPP, 2022

Weight: 288 t Length: 8,7 m Diameter: 4,7 m



# Success stories Power



# Transportation and installation of the drum Nevinnomysskaya SDPP, 2020

Weight: 145 t Length: 19,6 m Diameter: 2,5 m



### Dismantling of the stator Novocherkasskaya SDPP, 2018

Weight: 288 t Length: 8,7 m Diameter: 4,8 m



### Equipment delivery Nizhneturinskaya SDPP-2, 2014

Weight: 240 t



#### Installation of a gas turbine Yuzhnouralskaya SDPP, 2013

Weight: 340 t



# Success stories Oil and gas



### Equipment relocation JSC «Kuibyshev Refinery», Samara, 2023

Weight: 52 t Length: 25 m Height: 5,5 m Width: 4,67 m



### Verticalization of hydrogen bullets LLC «Irkutsk Polymer Plant», Ust-Kut, 2023

Weight: 107,8 t Length: 18,6 m Height: 3,7 m Width: 3.9 m



# Replacement of buoyancy tanks RMD CPC-R JSC «Caspian Pipeline Consortium – R», 2022

Weight: 14 t Diameter: 2,5 m Height: 3,1 m Length: 7 m Dives: 300



### Equipment relocation JSC «Gazprom Neft-Omsk Refinery», Omsk, 2020

Weight: 161 t Length: 64,7 m Diameter: 6,1 m



# Success stories Oil and gas



Transportation of heavy cargo to the berth of Belokamenka vlg. LLC «Renaissance Heavy Industries», Murmansk, 2022

Weight: 480 t



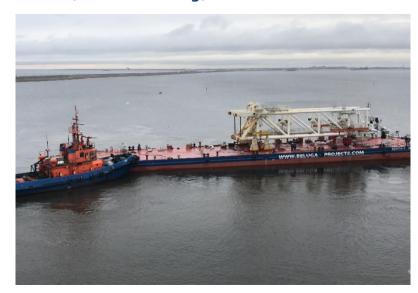
Dredging at the berth of the Omsk Oil Refinery LLC «Gazprom Neft-KS», 2022

Volume: 15,000 cub m



Dismantling the stinger section LTD «Mortransservice», St. Petersburg, 2021

Weight: 250 t



Installation of rudder propellers, Murmansk LLC «Global technologies of innovative systems», 2021

Weight: 45,6 t



# Success stories Oil and gas



### Delivery and movement of parts of the R202 regenerator Ural Oil Refinery «BASHNEFT», Ufa, 2015

Weight: 150 t



### Delivery of reactors and coke chambers JSC «Antipinsky Oil Refinery», Tyumen, 2014

Length: 42,10 m Diameter: 8,33 m Total weight: 6 465,7 t



### Delivery and loading of reactors Refinery «Lukoil», Kstovo, 2013

Weight: 200 t



# Reactor moving OAO «Gazprom oil-Omsk Refinery», Omsk, 2011

Weight: 315 t Length: 28 m Diameter: 4 m Height: 5 m



# Success stories Infrastructure



### Construction of a bridge across the river. Volga JSC «Roads and Bridges», Samara region, 2022

Depth: 30 m Formwork weight: 1038 t



### Lifting parts of the tunneling shield JSC «BTS MOST», Moscow, 2022

Weight of largest element: 180 t Depth of foundation pit: 27 M Total weight of elements: 1522 t



### Installation of a bridge span JSC «Roads and Bridges», Kubinka, 2021

Weight: 803,4 t Length: 98,02 m Width: 6,57 m Height: 16,87 m



### Assembling and lowering the TMC to the project position JSC «CMC MOST», Moscow, 2019

Weight: 870 t Depth of foundation pit: 27

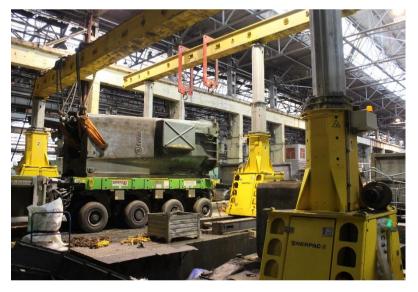


### Success stories Machinery



Dismantling the SKODA machine JSC «Elektrostal Heavy Engineering Plant», Elektrostal, 2023

Weight: 87 t Length: 2,5 m Height: 5,9 m Width: 16 m



Moving the press beds PJSC «Chelyabinsk Forge and Press Plant», PJSC «Avtodiesel», Yaroslavl, 2023

Weight: 126 t, 85 t



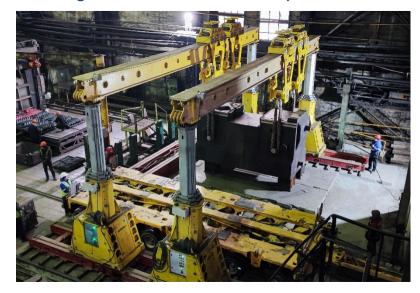
# Moving and mounting of pressing equipment LLC Oryol steel rolling plant, Oryol, 2022

Weight: 65 t



Replacing the inertial block of the hammer PJSC «Chelyabinsk Forge and Press Plant», Chelyabinsk, 2022

Weight: 422 t Length: 6,9 m Height: 6,9 m Width: 2 m



### Success stories Mining and metals



# Unloading and installation of mixers PJSC «Magnitogorsk Iron and Steel Works», 2018

Weight: 472T/92 t Length: 22M/15 m Diameter: 5,3 m



### Mill transportation JSC «Polyus Gold», Magadan, 2013

Weight: 900 t



# Handling and installation of hot rolling mills parts JSC «Kamensk-Ural Metallurgical Plant», 2016

42 details Weight: from 80 to 512 tons Length: до 22 m Diameter: до 6 m



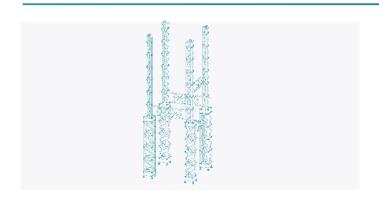
# Presses movement PJSC «Magnitogorsk Iron and Steel Works», 2018

Weight: 600 t Length: 6,3 m Height: 13,4 m Width: 5 m



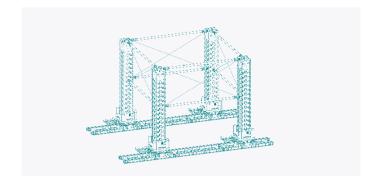
### Lifting equipment





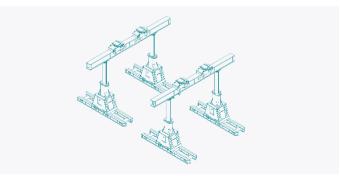
Greiner "Power Tower"

- Capacity up to 3600 t
- · Lifting height up to 31 m



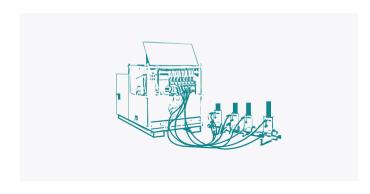
Jack-Up System «JS250 Enerpac»

- Capacity up to 1000 t
- · Lifting height up to 25 m



Gantries "SBL-1100", "SBL-500", "SL-300" Enerpac

- Capacity up to 1100 t
- · Lifting height up to 12 m



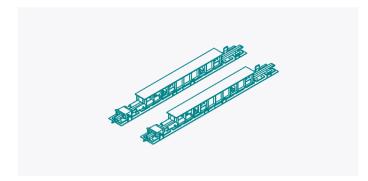
Syncronous lifting system "EVO System"

Capacity from 50 t to 500 t



Strand Jacks «HSL20006»

- Capacity 220 t
- Lifting and lowering height up to ~ 2 km



Skidding System

· Capacity up to 500 t

### **Transport**





Trucks "MAN",
"Mercedes", "Volvo"

Modular trailers, modular split axels, lowbed trailers "Faymonville"

Power up to 680 hp

• Capacity up to 36 t/axle



Self-propelled modular transporters "Cometto"

• Capacity 60 t/axle

### Fleet





### Anchor tugs

• Power up to 680 hp



### Non-self-propelled barges

• Capacity up to 3200 t



- Compliance with the legislation requirements in the field of labor protection, industrial, fire and environmental safety
- Mandatory identification and risk assessment before starting work
- Company is certified in accordance with the standards GOST R ISO 9001-2015, GOST R ISO 14001-2016, GOST R ISO 45001-2020

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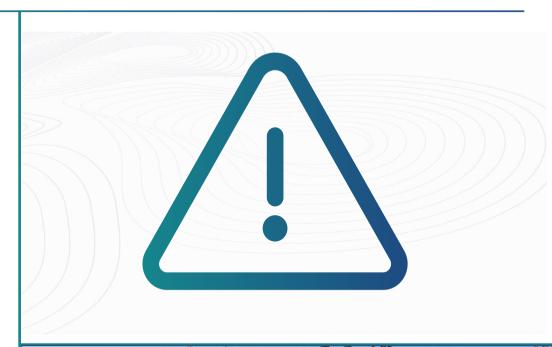
"Golden Rules of Safety"

0

incidents with disability

4,9

mln. rub. per year of investments in HSE activities





### We are proud



### >100 000 t

different cargoes, systems and equipment

### 7000 t

maximum weight of the lifted load

### 1300 t

maximum weight of the transported cargo

### 229 m

maximum lifted load length

### 47 m

maximum lifting height

### 370 km

length of the longest road route, with total weight of 517 tons

### 142 m

maximum lowering depth

### 300

dives for 1 project





# We change construction approach

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