

COMPRESSOR EQUIPMENT MANUFACTURER





COMPANY TODAY

Modern engineering and manufacturing company, founded in 2010

Area of the production facility

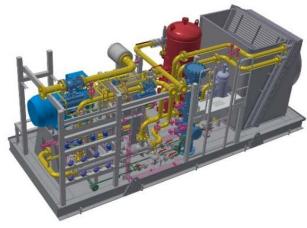
150 000 m²

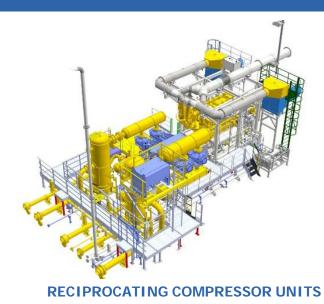
more than 500 employees

- Custom design and engineering based on enduser requirements
- Solutions for Up-stream, Mid-stream and Downstream applications
- Completed and fully-tested equipment from own facility
- After-Sales support

PRODUCT LINE

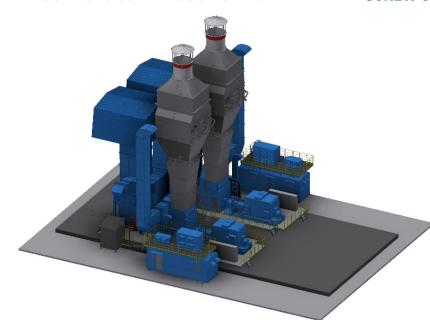






CENTRIFUGAL GAS COMPRESSOR UNITS

SCREW COMPRESSOR UNIT





GAS TURBINE POWER UNITS

MOBILE COMPRESSOR UNITS (MCU)
BASED ON THE COMMON MOTOR-DRIVEN
COMPRESSOR

IRTYSH CENTRIFUGAL GAS COMPRESSOR UNITS

- Power range from 4 to 32 MW
- Modular design or easy-to-assemble hangar type
- High prefabrication level
- Different climatic categories
- New projects and modernization of existing compressor stations
- Drive: gas or steam turbine, electric motor
- Compliance with API 617 standard

Gas turbines: Bakers Hughes, Siemens, Solar Turbines, United Engine Corporation and others

Comressors: Nuovo Pignone, Siemens, Solar Turbines and others

Manufactured



GAS TURBINE POWER UNITS

- Power range from 4 to 32 MW
- Stationary and mobile application
- High prefabrication level
- Block-modular design
- Gas turbine power units can be supplied in the common hangar
- Power generation for any applications

Gas turbines: Bakers Hughes, Siemens, Solar Turbines, United Engine Corporation and others

Manufactured



RECIPROCATING COMPRESSOR UNITS

- Power range from 30 kW to 16 MW
- Design: modular, on-skid
- High prefabrication degree, easy for installation and commissioning
- Operation in wide pressure at high efficiency values
- Up-stream and down-stream application
- Arctic, tropic and off -shore application
- Drive: gas engine, electric motor, steam turbine
- Compliance with API 618 standard

Comressors: Ariel, Dresser-Rand, Nuovo Pignone, Cooper, Burckhardt and others

Manufactured



SCREW COMPRESSOR UNITS

- Up to 3 MW
- Design: modular, on-skid
- High prefabrication degree; packaged modular supply
- Easy installation and commissioning
- Capacity control from 10% to 100%
- Drive: electric motor, gas engine
- Compliance with API 618 standard

Comressors: Howden, Kobelco, GEA Grasso and others

Manufactured



MOBILE COMPRESSOR UNITS BASED ON THE COMMON MOTOR-DRIVEN COMPRESSOR

Mobile Compressor Unit (MCU) is a modern and economical alternative for compression of low pressure gases

MCU in block design of various capacities for compression of low-pressure gases for fields with falling production, with the use of sparsely populated maintenance technologies

Main advantages:

- Single skid-mounted design including air cooling unit; ready-to-operate
- Minimum site preparation for MCU installation on site
- No increase gear, lubrication system, seal gas system; no gas release and leakage
- Optimal power consumption in each mode due to VFD; prompt cold startup
- Maximum possible intervals between maintenance and repair
- Use of minimally manned MCU operational technologies



CAPACITIVE AND SEPARATION EQUIPMENT

Pressure is up 35 MPa. Volume is up to 100 m³

Options:

- Filling
- High pressure
- Separators
- With external anti-corrosion coating
- With internal baffles
- With mixing devices
- With inner coating (epoxies, gumming)
- Other

Materials:

- Carbon steel
- Stainless steel
- Special steels and alloys

The vessels are designed and manufactured in accordance with the requirements of ASME, GOST, federal rules and industrial safety regulations

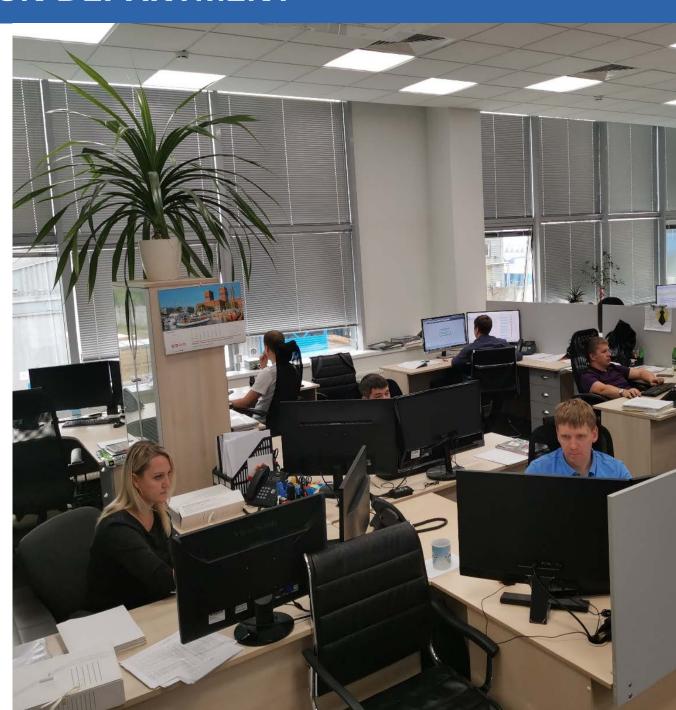


DESIGN DEPARTMENT

- Development of technical assignment, sets of reference, design, operating and repair documentation
- Design of the associated process equipment and auxillary systems
- Strength, gas-dynamic, hydraulic, thermal, acoustic calculations
- 3D-modelling

Own Design team - more than 120 persons

- Design of automation and power supply systems, lighting, power equipment and instrumentation equipment
- Application of modern and innovative technical solutions, technologies and materials in the course of work on the project
- Development of engineering documentation in accordance with API, ISO, ASTM and ASME standards
- Designer supervision at all stages of the project implementation at its own facilities and at the ones of the equipment subvendors



MANUFACTURING

Novo-Gayvinskaya Plant

- Total area is 65 000 m²
- Assembly and welding workshop is 5 000 m²
- Painting workshop is 1 500 m²
- Offices are 2 500 m²

12 Compressor units simultaneously

Full packages annually



MANUFACTURING

Brodovsky Plant

- Total area is 84 000 M²
- Assembly workshop 14 900^{M²}
- Offices are 2 000 M²
- Load capacity of cranes is from 10 to 80 tones
- Gates of 10 x 10 m
- Test bench for compressor units

More **40**

Full completely units





PRODUCTION CAPABILITIES

- 1. **Blank preparation section:** metal cutting and plasma cutting, lathe, milling and drilling operations
- 2. Welding and assembly section: welding, mocking-up, assembly of steel structures and process equipment
- 3. Machine assembly section: packaging of the systems, installation of the process equipment and argon arc welding
- 4. **Electrical section:** assembly of the switchboard equipment and performance of electrical work package
- 5. Section of the vessel equipment automatic submerged-arc welding
- 6. Painting shop with sand blasting
- 7. Packing section
- 8. **Finished products storage area:** Storage and shipment area



TECHNICAL SUPPORT AND SERVICE

- Erection supervision work
- Commissioning and start-up
- Maintenance service
- Delivery of spare parts
- Equipment modernization
- Specialists of the company have valid certificates and accreditation for performing work
- Experience in performing erection supervision and commissioning works on the following equipment: Caterpillar, Cooper, Ariel, Howden, Nuovo Pignone, John Crane, Eagle Burgmann, Thermodyn, GE, Baker Hughes, Solar Turbines, etc
- Delivery of spare parts and consumables, service, warranty and post-warranty maintenance







QUALITY SYSTEM

INGC products have all necessary certificates of conformity and other authorization documentation

Certificates of compliance with the requirements of international standards:

- ISO 9001:2015
- ISO 14001:2015
- OHSAS 18001:2007
- ASME
- INTERGAZCERT
- TR TS
- Others

PROJECTS

YUZHNO-RUSSKOYE OIL AND GAS FIELD

Centrifugal gas compressor units for operation of the booster compressor workshop, in terms of extension for Yuzhno-Russkoye oil and gas field

Drive: Gas turbine GTU-16PA

(UEC-Aviadvigatel JSC)

Compressor: Centrifugal NC-16 DCS-02

«Ural» (Iskra PJSC) Capacity: 16 MW

Discharge pressure: 7,4 MPa (g)

Production rate: 25,1 billion normal m3/year

Severneftegazprom LLC (2012-2020) (Gazprom)

Number of units:

14 centrifugal gas compressor units

Works on site:

Installation and commissioning of GCU with a drive, compressor and hangar, replacement of the compressor bundles



AKYRTOBE BOOSTER COMPRESSOR STATION (KAZAKHSTAN)

Centrifugal gas compressor units in individual shelters for boosting compressor station «Akyrtobe»

Drive: NK-16-18STD (KMPO JSC, Kazan) **Compressor:** BCL356/A (Thermodyn GE

Oil & Gas)

Capacity: 18 MW

Discharge pressure: 9,8 MPa (abs)

Production rate:1,986 billion normal m3/year

KazTransGaz LLC (2016-2018)

Number of units:

3 centrifugal gas compressor units «Irtysh»

Works on site:

Installation and commissioning of GCU with a drive, compressor and hangar, replacement of the compressor bundles



URENGOY GAS TREATMENT PLANT

Centrifugal gas compressor units in the common shelter

Drive: PS-90GP and D-30EU-6

(UEC-Aviadvigatel JSC)

Compressors: STC-SV (Siemens)

Capacity: 10 and 6 MW

Discharge pressure: 7,3/7,3 MPa

Production rate: 170276 and 76494 m3/h

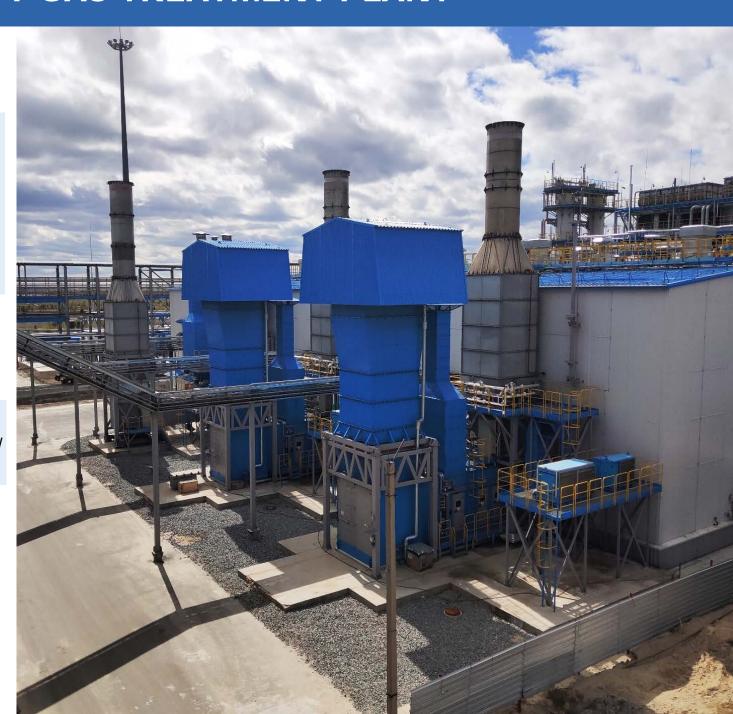
Gazprom Pererabotka LLC (2017-2018) (Gazprom)

Number of units:

2 centrifugal gas compressor units «Irtysh» - 10MW1 centrifugal gas compressor units «Irtysh» - 6MW

Works on site:

Erections supervision, installation and commissioning of GCU with a drive, compressor and hangar shelter



SAMANTEPE COMPRESSOR STATION (UZBEKISTAN)

Centrifugal gas compressor units

Further development of Semantepe field. Yuzhny Urtobulok

Drive: Taurus 70 (Solar Turbines)

Compressor: 2BCL 406 (Thermodyn, BHGE)

Capacity: 7,8 MW

Discharge pressure: 5,5 MPa

Production rate: 10 mln normal m3/d

Enter Engineering Pte Ltd (2019) (Uzbekneftegaz)

Number of units:

2 centrifugal gas compressor units «Irtysh»

Works on site:

Erections supervision and commissioning of GCU with a drive



ALAN / ZEVARDY (UZBEKISTAN)

Centrifugal gas compressor units in the block-module design

Drive: AI-336-2-8 (Motor Sich JSC) **Compressor:** PCL504 (Baker Hughes)

Capacity: 8 MW

Discharge pressure: 1,7 – 0,9 MPa

Production rate:

9,55 - 3,09 mln m3/d Zevardy

9,14 – 2,09 mln m3/d Alan

Enter Engineering Pte Ltd (2019) (Uzbekneftegaz)

Number of units:

2 units «Irtysh» Alan

2 units «Irtysh» Zevardy

Works on site:

Erections supervision and commissioning of GCU with a drive



DENGIZKUL COMPRESSOR STATION (UZBEKISTAN)

Centrifugal gas compressor units in the block-module design

Drive: GTU-16 Nova 16LT (Baker Hughes) **Compressor:** 2BCL608 (Baker Hughes)

Capacity: 16 MW

Discharge pressure: 1,83 - 0,5 MPa **Production rate:** 1,52**-**5,17 mln m3/d

Enter Engineering Pte Ltd (2012) (Uzbekneftegaz)

Number of units:

2 centrifugal gas compressor units «Irtysh»

Works on site:

Erections supervision and commissioning of GCU with a drive



POVKHOVSKOYE FIELD

Electrically driven gas compressor units

in the block-module design

Drive: ET900V2 Nidec ASI SpA-Motors,

Generators&Drives, Monfalcone

Compressor: 2BCL457

(Nuovo Pignone, Baker Hughes)

Capacity: 4 MW

Discharge pressure: 3,02 MPa (g) **Production rate**: 20001 normal m3/h

Lukoil (2021)

Number of units:

3 electrically driven gas compressor units «Irtysh»

Works on site:

Installation supervision, commissioning, commissioning of the facility



VOLGOGRAD

Electrically driven gas compressor unit in frame

Drive: 1NB1 564-4AA60-4AGO (Siemens) **Compressor**: BCL304 (Thermodyn, BHGE)

Capacity: 1,7 MW

Discharge pressure: 2,1 MPa (g) **Production rate**: 20560 normal m3/h

Lukoil PJSC (2021)

Number of units:

1 electrically driven gas compressor unit «Irtysh»

Works on site:

Installation supervision and commissioning



NOYABRSKNEFTEGAS

Packaged modular compressor unit

based on the integrated centrifugal ICL motor-compressor

Motor-Compressor: ICL (Thermodyn, BHGE)

Capacity: 0,33 MW

Discharge pressure: 0,81 MPa (g) **Production rate**: 1903 normal m3/h

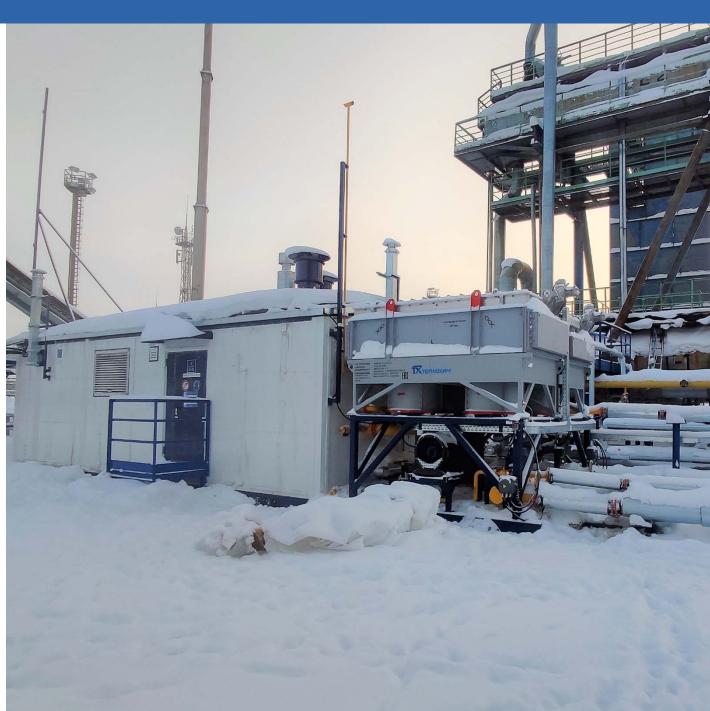
Gazprom Neft PJSC (2021)

Number of units:

1 packaged modular compressor unit The first in Russia

Works on site:

Installation supervision and commissioning



ICHEDINSKOYE FIELD

Complete gas turbine power units of blockmodular design

Drive: Taurus 60-7901 (Solar Turbines)

Generator unit: Taurus 60 (Solar Turbines)

Capacity: 5,74 MW **Rated voltage:** 6,3 kV

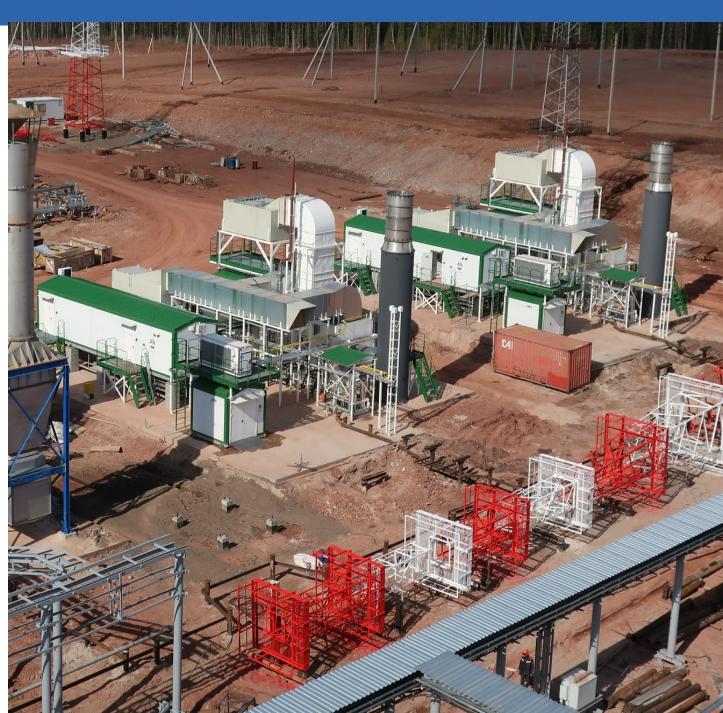
Irkutsk Oil Company LLC (2018)

Number of units:

2 gas turbine power units «Irtysh»

Works on site:

Erection supervision and commissioning of gas turbine power units



BOVANENKOVSKOE GAS FIELD

Complete gas turbine power units of blockmodular design

Drive: GTU-12PG-2 (UEC-Perm Engines JSC)

Generator unit: TC-12-2РУХЛЗ (Elektrotyazhmash-Privod LLC)

Capacity: 12 MW

Gazprom dobycha Nadym LLC (2022)

Number of units:

2 gas turbine power units «Irtysh»

Works on site:

Erection supervision and commissioning of gas turbine power units



YURUBCHENO-TOKHOMSKOYE FIELD

Reciprocating CUs in the individual shelters for oil-associated gas compression and further injection into formation

Drive: G3616 LE (Caterpillar)

Compressor: KBU/6 (Ariel Corp.)

Capacity: 3,7 MW

Discharge pressure: 28,0 MPa (g) **Production rate:** 23000 normal m3/h

Vostsibneftegaz JSC (2016) (NK Rosneft)

Number of units:

12 reciprocating compressor units

Works on site:

Erection supervision of the helter, CU units, air-cooling unit of gas and engines, exhaust system, low-voltage package module and ACS. Regular reconservation



CHINAREVSKOYE FIELD (KAZAKHSTAN)

Reciprocating CUs of modular construction, ready-to-operate. Reinforcement block and aircooling units of gas with piping are installed outside

Drive: 1SG64544JJ80-Z (Siemens) **Compressor:** JGJ/6 (Ariel Corp.)

Capacity: 0,96 MW

Discharge pressure: 4,2 MPa (g) **Production rate:** 12000 normal m3/h

Zhaikmunai LLC (2018)

Number of units:

3 reciprocating compressor units

Works on site:

Erection supervision of CU units, air-cooling units of gas with piping, commissioning and putting into operation



PYREINOYE BOOSTER COMPRESSOR STATION

Ready-to-operate in-frame reciprocating compressor unit located in the hangar enclosure

Drive: G3612 (Caterpillar)

Compressor: KBZ/4 (Ariel Corp.)

Capacity: 2,64 MW

Discharge pressure: 11,20 MPa (g) **Production rate:** 260 420 normal m3/hr

Sibneftegaz LLC (2018) (NK Rosneft)

Number of units:

1 reciprocating compressor unit

Works on site:

Erection supervision of the compressor units, gas air cooler with piping, adjustment and start-up



CAMEROON REPUBLIC

The first compressor unit for INGC manufactured to meet all the requirements of the Maritime Register for the operation of equipment on the sea shelf

Ready-to-operate on-frame reciprocating compressor units

Drive: CT 500 Y6 (Nidec)

Compressor: CFH64 (COOPER)

Capacity: 1,4 MW

Discharge pressure: 8,5 MPa (g)

Production rate: 9 417 normal m3/hr

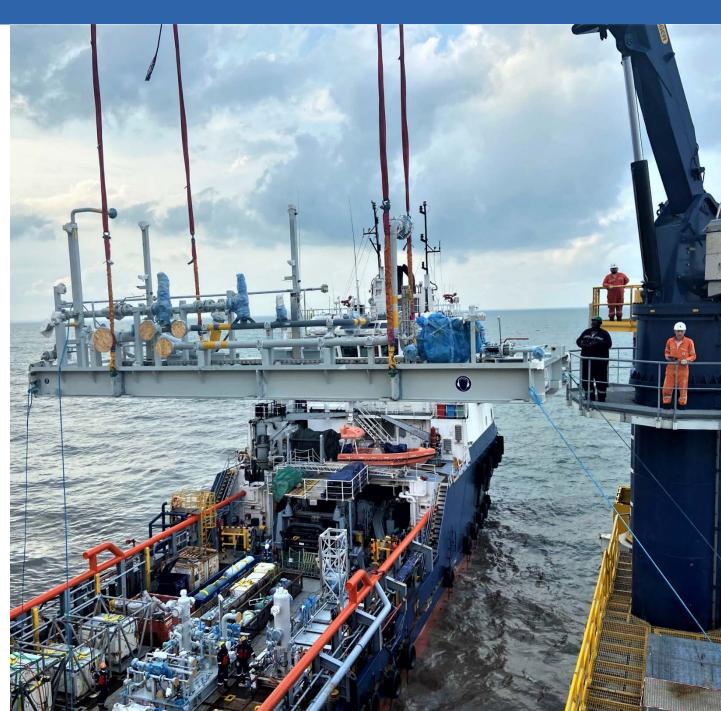
Perenco Rep S.A.R.L. (2021) (France)

Number of units:

2 reciprocating compressor units

Works on site:

Installation supervision, commissioning, commissioning of the facility



EVO-YAHINSKOYE FIELD

Reciprocating CUs of modular construction, ready-to-operate

Drive: BAO-560-905-4ДУ2 (Siemens) **Compressor:** JGJ/6 (Ariel Corp.)

Capacity: 1 MW

Discharge pressure: 2,8 MPa (g) **Production rate:** 36000 normal m3/h

Novatek-Yurkharovneftegaz LLC (2022)

Number of units:

2 reciprocating compressor units

Works on site:

Erection supervision of CU units, commissioning and putting into operation



POVKHOVSKOYE FIELD

Screw CU in block design, full ready-tooperate

Drive: 1BAO-450SA-2Y2.5 (ELDIN)

Compressor: VP-V36S-28 (GEA Grasso)

Capacity: 0,132 MW

Discharge pressure: 0,32 MPa (g) **Production rate:** 1500 normal m3/hr

Lukoil-Zapadnaya Siberia LLC (2019) (Lukoil)

Number of units:

1 screw compressor unit

Works on site:

Erection supervision of CU units, commissioning and putting into operation



CONGO REPUBLIC

Packaged screw CU on the frame. Outdoor design. Air-cooling unit of gas with piping is Installed outside on the frame integral with the unit

Drive: M3GP (ABB)

Compressor: WRVi 255-110 38 (HOWDEN)

Capacity: 0,45 MW

Discharge pressure: 1,69...1,80 MPa (g) **Production rate:** 4228 normal m3/hr

Perenco Rep S.A.R.L. (2019) (France)

Number of units:

1 screw compressor unit



AMURSKY GAS CONDENSATE FIELD

Packaged screw CU on the frame. Outdoor design

Drive: M3KP 355SMB 2 IMB3 (ABB) **Compressor:** KS25LX (Kobelco)

Capacity: 0,32 MW

Discharge pressure: 1,04 MPa (g) **Production rate:** 3 398 normal m3/hr

Linde GmbH (2022) (SIBUR Holding)

Number of units:

1 screw compressor unit



VOSTOCHNO-KAPITONOVSKOE FIELD

Screw CU low and medium pressure on the frame

SCU-005/1

Drive: ASA 280M-2 (UMEB)

Compressor: WRV 204-110 50 (HOWDEN)

Capacity: 0,09 MW

Discharge pressure: 0,7 MPa (g)

Production rate: 551,25 normal m3/hr

SCU-005/2

Drive: VGF H24SE (Waukesha)

Compressor: WRVi 255-110 30 (HOWDEN)

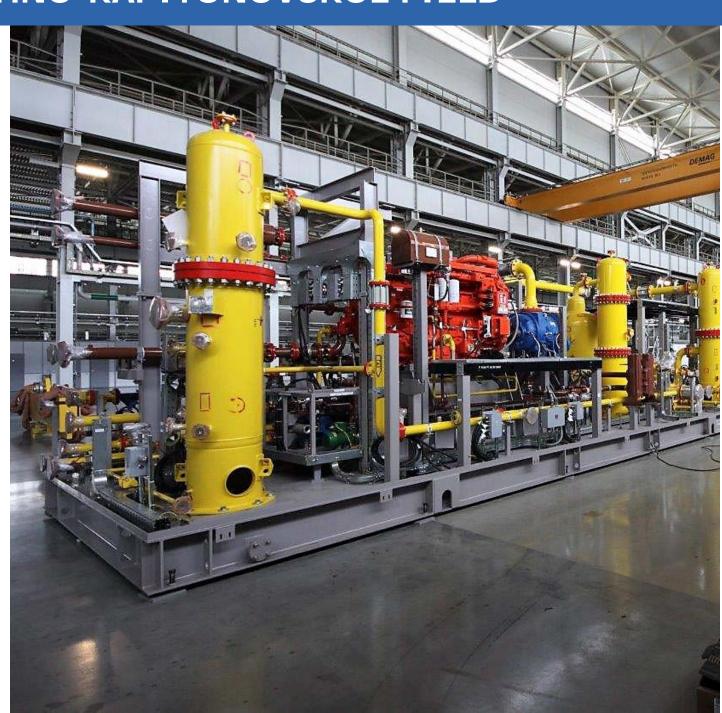
Capacity: 0,39 MW

Discharge pressure: 2,8 MPa (g) **Production rate:** 3725 normal m3/hr

Orenburgneft JSC (2022)

Number of units:

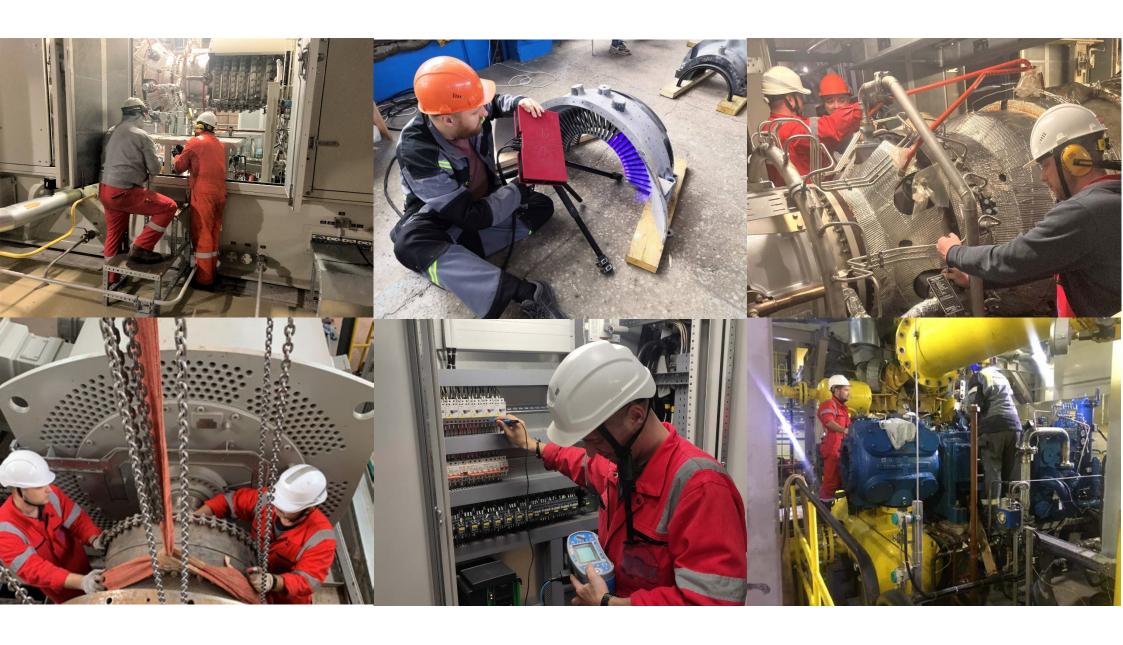
5 screw compressor units



COMPONENTS, ASSEMBLIES AND STRUCTURES FOR COMPRESSOR UNITS



MAINTENANCE, OVERHAUL





HEADQUARTER

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