# PACKAGE SUPPLIES OF POWER EQUIPMENT

## Structure

## REP HOLDING



Founded in 2004

Incorporated in Gazprom Energoholding Group since 2019



## **Nevskiy Zavod**

Turbine and compressor production

- Manufacturing of modern gas pumping units, steam and gas turbines and compressors
- Modern fleet of machine tools
- Unique test benches
- Automatic production lines
- Modern casting shop
- More than 75 acres of production facilities

#### **Engineering center**

- Turbines, compressors and electrical equipment development
- Design engineering
- Research and development
- Extension of machine life cycle
- · Safety audits of production sites
- Test procedures development
- Above 200 in-house design engineers



>2000

**Employees** 



>1000

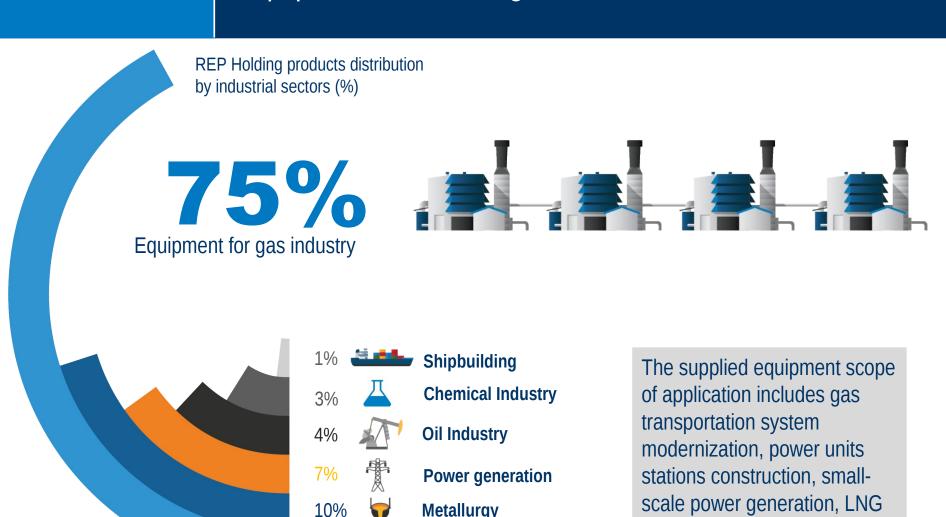
Implemented projects



>10

Localized global OEMs licenses: General Electric, Solar Turbines, Siemens, S2M (SKF)

## **Equipment for Leading Industries**



market and other industries.

Metallurgy

**Gas Industry** 

75%

## **Equipment for Leading Industries**

#### **REP Holding products application scope**



# **Gas pumping units** (16, 22 / 25, 32 MW)

• Gas



#### **Electrically-driven gas pumping units**

(4,0; 6,3; 10,5; 12,5; MW)

• Gas



#### **Heavy-duty gas turbines**

(16 - 32 MW)

- Oil
- Power generation
- Gas



#### Steam turbines (6 – 25 MW)

- Metallurgy
- Power generation



#### **CCGT Units**

(24 - 84 MW)

Power generation



#### **Centrifugal compressor machines**

(4 - 32 MW)

• Oil

- Gas (incl. LNG production)
- Metallurgy
- Chemical Industry
- Power generation

# Competitive advantages



## **Efficiency**

- Full production cycle
- Operating cost reduction
- High efficiency
- Turn-key solutions



## Reliability

- 100% availability
- Long MTBF and long machine life cycle
- In-house test benches
- Machines and components quality control



#### Leadership

- The only Russian OEM of 16 / 32 MW heavy duty turbines
- >10 years of successful localization of advanced international technologies
- 100% technologies ownership for manufacturing and service maintenance of licensed GTs (16-32 MW)
- In-house Design Institute



## **Environmental safety**

- Unique environmental characteristics and low emission level
- Production of modern equipment according to API standards
- Compliance with current Russian and international standards:

(Test – Saint Petersburg, Russian Register, IQNet, ACCREDIA)

>40
Russian regions

>20
Foreign countries

>6 500
Running machines

20 Turbines 50 Compressors

Sales geography

Annual production rates

## **Full Operational Cycle**



- Research and Engineering
- Unique process solutions
- Customized Products. Customer based approach

## **Production**

- 10 high tech manufacturing sites
- Fully equipped modern production lines
- Integrated production Management System
- · Ongoing staff training and Development
- Regular trainings held t at the partners' production sites (overseas)
- In-house Casting Shop









- More than 10 test benches.
- Full load tests





#### **Design review and quality control**

- In-house Test Lab
- 12 types of diagnostic tests
- Quality control at each production stage



- Transportation of fully pre-assembled equipment
- In-house Logistics Department
- In-house Packaging Shop



## Service























**Engineering support** 



Full service life maintenance



Equipment control and diagnostics



Overhaul maintenance management



Timely delivery of spare parts



Staff trainings



Certified service engineers



Local service engineering

High Efficiency

Convenient operations

Operational cost reduction

## Technology Development Center





High tech production



Partnership with global leading OEMs (General Electric, Solar Turbines, etc.)



Successful localization of cutting edge international technologies in Russia

# Domestic Technology Centre Established to Produce World Class Heavy-Duty Gas Turbines

#### **GT Features**





200,000 hrs service life



Low emission level



On-site maintenance



Turn-key delivery of fullypreassembled equipment





Long MTBF



High efficiency



Multi-purpose application



Cost saving

#### **16 MW**

Designed by Russian engineers with GE Oil & Gas



Eff. — 37%

NOx ≤ 25 ppm

#### 22/25 MW

Solar Turbines license



Eff. — 40%

 $NOx \le 25 ppm$ 

#### **32 MW**

**GE** license



Eff. — 36%

 $NOx \le 18 ppm$ 

## Production rates (2010 – 2020)

Gas pumping units



**75** Gas pumping units (32 MW)

Steam turbines

Electrically-driven gas pumping units



40 Electrically-driven gas pumping units (4, 6.3, 10 MW)



11 Steam turbines

Compressors



122 Centrifugal compressors

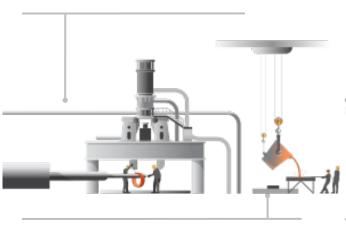
Replacement blading sections

**Supply objects:** Compressor stations of trunklines Bovanenkovo-Ukhta, Bovanenkovo-Ukhta-2, Power of Siberia, TurkStream, Nord Stream, Novoportovskoye field, Amur Gas Processing Plant; Sakhalin II, storage and shipment complex near the Portovaya compressor station; Cryogas-Vysotsk medium-scale LNG project; Booster compressor station (BCS) of Zapadno- West-Tarkosalinskoye field, BCS of Ety-Purovskoye field; Chayandinskoye, Zapolyarnoye, Bovanenkovsoye, Urengoyskoye, Yaro-Yakhinskoye fields; Severstal, EVRAZ, NLMK, Magnitogorsk metallurgical Plant; Mozyr Oil Refinery, TANECO Refining and Petrochemical Plants Complex, etc.

## **Key Customers**

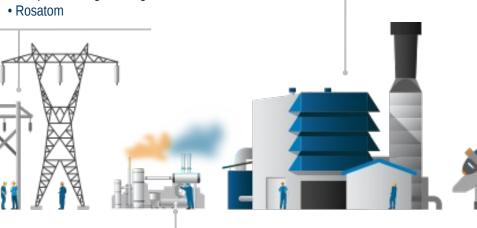
## **Machine Building**

- Power Machines
- KMZ Izhora Metall
- North Metallurgical Company
- OMZ-Foundry
- Ural Turbine Works



#### **Power Generation**

- OGK-2
- Rosenergoatom
- Federal Grid Company
- Gazprom Energoholding



## **Gas Industry**

Gazprom



## **Metallurgical Industry**

- Magnitogorsk MC
- Lipetsk MC
- Nizhny Tagil MC
- Severstal
- Mechel
- EVRAZ
- Kazakhmys (Kazakstan)

- Bokaro MC
- Bkhipai MC
- Durgapur MC (India)
- Paksteel (Pakistan)
- · Baotou Iron & Steel Group

Company (China)

## **Chemical Industry**

- Shchekinazot
- Akron
- URALCHEM
- Grodno Azot
- Naftan
- Nizhnekamskneftekhim

- Kazanorgsintez
- Ufaorgsintez
- EuroChem
- FOSAGRO
- Minudobreniya
- Gazprom Neftechim Salavat

## **Oil Industry**

- Gazprom Neft
- Lukoil
- Rosneft
- RusNeft
- SIBUR Holding
- Surgutneftegaz

- Tatneft
- TNK-BP Holding
- Transneft
- KazMunayGaz

# Thank you for your attention!

Phone: +7 (812) 372 58 81 Fax: +7 (812) 412 64 84

192029, Saint Petersburg, 51, lit. AF, Obukhovskoy Oborony pr. www.reph.ru