

Technical capacity of JSC «Volgogradneftemash»



2019 year



JSC «Volgogradneftemash» was founded in 1941.

More than 75 years of the Company's production activity have resulted in the wide experience in making oil-and-gas equipment which complies with the highest quality standards and has proved reliability in operation.

JSC «Volgogradneftemash» was awarded with the Order of Lenin for the introduction of large-block method of equipment fabrication for oil refining industry sector.

The main types of JSC «Volgogradneftemash» products:

- columns, reactors, coke chambers, heat exchangers, separators, tanks and other vessels which are operating under pressure and with working temperature range from -196 до + 610 °C
- gas equipment for refining, processing and gas treatment for gas-transport system which operates in different operating conditions including the working temperature range from -63 до +530 °C;
- Pig trap stations;
- Pipeline , shutoff and control valves for main gas pipeline;
- Centrifugal oil pumps.



JSC «Volgogradneftemash» fabricates the equipment which complies with international standard

✓ ASME Code Section VIII div.1, div.2 (pressure equipment); ISO 13709/API 610 (pumps); API 6F, 6D (Pipeline, shutoff and control valves).

✓ In accordance with technical conditions of companies like Axens, UOP, Foster Wheeler, Chevron Lummus Global LLC, Fluor.

The equipment is fabricated from high-strength molybdenum-nickel steel, chromium-molybdenum steel and chromium-molybdenum vanadium steel with cladding layer from chrome-nickel heat-resisting and corrosion-resistant steels. To avoid the cracking of cladding layer within the big range of working temperature, the overlaying is done with Inconel heat-resisting chrome-nickel alloys.



The main customers of JSC «Volgogradneftemash»

PAO ANK “Bashneft”, PAO “Gazprom”, PAO “Gazprom neft”, JSC “NK “Rosneft”, PAO “Tatneft”, PAO “LUKOIL”, JSC “Surgutneftegaz”.

Our company fabricated oil-production equipment successfully for such foreign companies as JGC Corporation (Japan), LITWIN (France), ABB Lummus Global (USA), PALL GmbX (Germany), ENEX(Belgium). There were also deliveries of equipment to Syria, Belarus, Kazakhstan.

Main gas pipelines, gas fields, refineries, petrochemical companies and factories of mineral fertilizers are equipped with JSC “Volgogradneftemash” main equipment.



Production capabilities

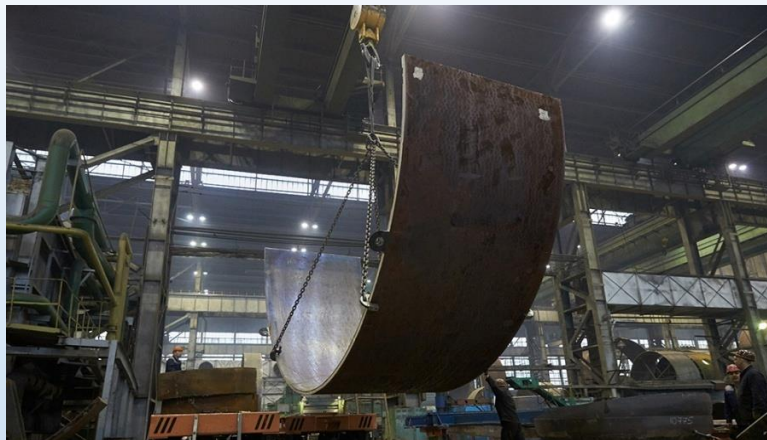
The company has a wide range of different process equipment, allowing to perform:

Shaping blanks

Machine working

Welding and assembly

Heat treatment and test



Blank production

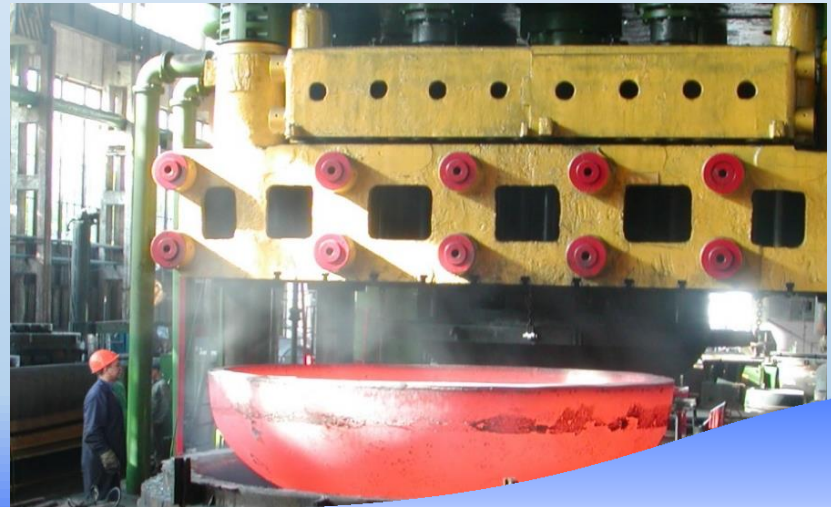
Cutting, forming sheet metal with thickness from 4 mm to 300 mm

Elliptic bottom up to \varnothing 4000 mm (stamping)

Hemispherical bottom up to \varnothing 9000 mm (stamping)

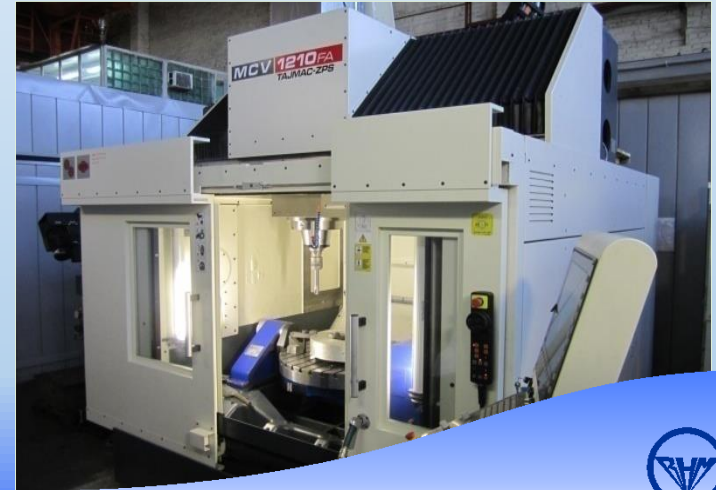
Elbows, tees and swages up to \varnothing 1000 mm (stamping)

Flanges, nipples, hardware



Machining production

- 890 production units
- 178 CNC machine (4 special areas)
- deep hole drilling machine (drilling depth up to 500 mm)
- 4 and 5 coordinate machines

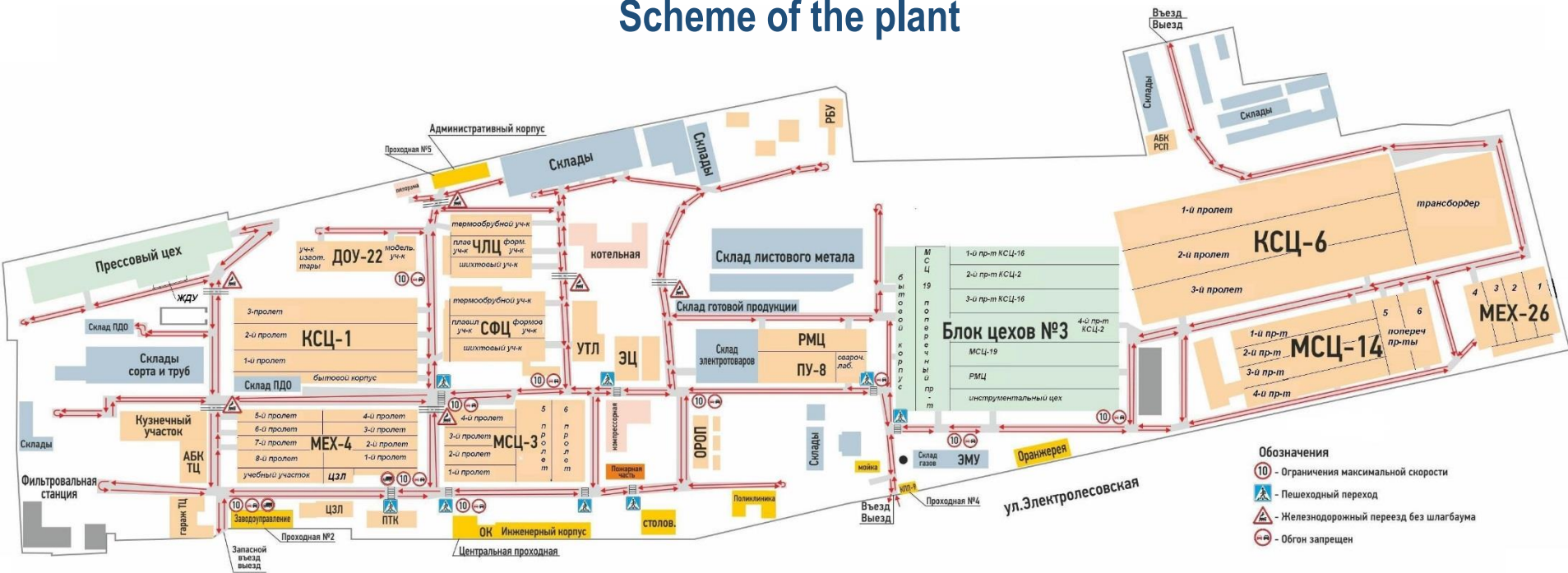


Assemble-welding production

- Bulk equipment weighing up to 700 tons, with a diameter of up to 10 m and a length of up to 100 m.
- Technologies for manufacturing equipment from carbon, heat-resistant chromomolybdenum and chrome-molybdenum-vanadium steels, austenitic and duplex (super-duplex) steels in mono and bimetallic versions.
- Automatic welding in narrow-gap of shells with a diameter of up to 10 m.
- Electroslag facing of the cladding layer by tape with width 30 mm, 60 mm, 90 mm.
- Argonarc weld overlay with internal and external surfaces of nozzles with a diameter of 2 "and above with a consumable and non-consumable electrode.
- Dual-arc welding.
- Automatic mode of all types of volume heat treatment of vessels, including austenization, in automatic mode according to a predetermined schedule. Furnace dimensions allow heat treating of vessels with a diameter of up to 8.5 m, length up to 38 m and weight up to 600 tons.



Scheme of the plant



JSC «Vologradneftemash» is ideally located on the River Volga and has its own river berth giving access to seaports of the Black Sea, the White Sea and the Baltic Sea, which facilitates the shipment of large-size equipment to customers to any remote area.



The shipment of JSC "Vologradneftemash" products before building of its own river berth.



Adsorbers for Pump Station 'Kazachya'

from high-tensile steel with a fire-resistant cover, \varnothing is 4600 mm, length is 20 m, steel grade SA533 Type BCl2, weight is over 190 tons.



Coke Chamber for JSC «Gazpromneft-ONPZ»

\varnothing is 9300 mm, length is 36 m, steel grade SA387Gr11Cl2 + Tp410S, weight is over 590 tn.



Gas-gas heat exchangers 50 pcs. for the Bovanenkovo field CGTP GP-1, 2, 3

Ø is 1600 mm, length is 11.3 m,
wall thickness is 70 mm,
weight is 67.7 tons



Columns 6pcs. for AO 'Gazpromneft-Omsk Refinery'

Ø is 8000 mm, the length is 71 m,
steel grade SA516Gr70 + Inconel 625 / SA516Gr70
SA516Gr70 + 410S)
The largest weight is 560 tons.



Reactor 400-R01 for JSC “Kuibyshev-Refinery”. The Catalytic Cracking Complex, the FCC unit.

It was fabricated in 2009 year according to the technical conditions and base project of UOP (USA) company.

Length – 31 meters,
diameter – 5600 mm,
wall thickness – 20 mm,
weight – 141 tn.



Regenerator for JSC “Kuibyshev-Refinery”. The Catalytic Cracking Complex, the FCC unit.

It was fabricated in 2009 year according to the technical conditions and base project of UOP (USA) company.

Length – 33 meters,
diameter – 7600 mm,
wall thickness – 26 mm,
weight – 235 tn.



Reactor Regeneration skid for OAO Kuibyshev Refinery Catalytic Cracking Complex, FCC unit

Almost 500 square meters of an armor mesh was installed inside and outside the riser of the regenerator, more than 23 thousand anchors were welded to the inner surfaces of the body parts for the application of thermal and wear-resistant gunned concrete.



- The 1st Hydrotreater R-501 for JSC “Mozyr Oil Refinery”.
Integrated Hydrocracking Unit

It was fabricated in 2016 year according to the technical conditions and base project of “Axsens” (France).
The length – 27 meters, the diameter – 3700 mm, the wall thickness – 95 mm, the weight – 233 tn.



Drum dumper for PAO "Kazanorgsintez"

It was made in 2006.

Shipment was carried out in four parts.

Length is 37.5 m, diameter is 4420 mm, wall thickness is 26 mm, weight is 116.5 tn.



Equipment for PAO«Nizhnekamskneftekhim»

Column Ct-350

Was made in 2005.

Length is 37.7 m, diameter is 3600 mm,
wall thickness is 20 mm, weight is 63.5 tn.

Condensing vessel for propylene fractionation
column

Made in 2006

Length is 9.7 m, diameter is 1400 mm, wall
thickness is 12 mm, weight is 27.4 tn.



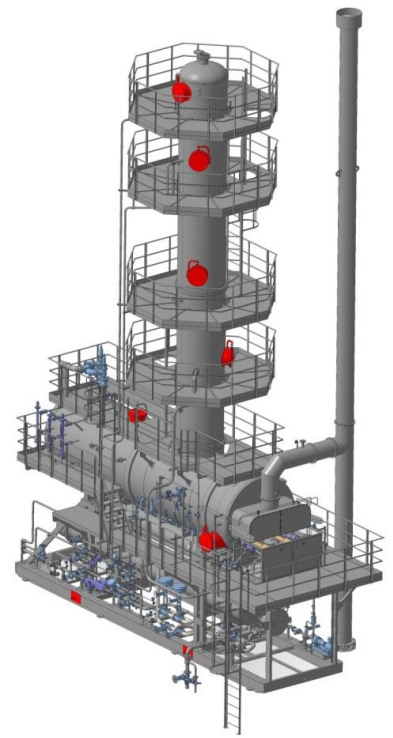
Coke drums for OOO Lukoil-Permnefteorgsintez

Was made 4 units in 2013 according to technical conditions and the basic project of the company Lummus Technology

Height is 27 m,
Diameter is 7600 mm
weight is 190 tn.



Fire regeneration skid ,liquefaction and removal of condensate skid, stripping and fuel gas skid, low temperature separation skid



Acid gas removal units (block and hardware)



Gas ejector unit was manufactured in 2014
for the reconstruction of the CGTU at the Novo-Urengoi licensed site
weight is 39 tn.

The fabricated column equipment for Delayed Coker unit of PAO “Tatneft”

The equipment was fabricated upon “Foster Wheeler” license

Fractionation column

Material: 09Г2С.

Length - 48,5 m; diameter - 5100 mm;
wall thickness - 32 mm;
weight - 231 tn.



Stripping column of light gas oil /Stripping column of heavy gas oil

Material: 09Г2С, 09Г2С+08Х13.

Length – 32,8 m; diameter – 1800/1400 mm;
wall thickness – 14/12 mm;
weight – 30,2 tn.



В.Д. Шашин исемендәге
«ТАТНЕФТЬ» АЧЫК
АКЦИОНЕРЛЫК ҖӘМҖИЯТЕ



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корреспондентский счет №30101810400000000792, БИК 049202792

«12» 10.06.2014 г. № 14733-16 х/р (333)
На исх. № _____

Генеральному директору
ОАО «Волгограднефтемаш»
А.В. Лазареву

Уважаемый Александр Владимирович,

В рамках Федеральной программы компания ОАО «Татнефть» им. В.Д. Шашина реализует проект строительства Установки замедленного коксования КНПиНХЗ в г. Нижнекамск, своевременное завершение которого имеет крайне важное значение для Республики Татарстан и для Российской Федерации.

В рамках реализации указанного проекта у компании ОАО «Волгограднефтемаш» были размещены ключевые заказы на изготовление крупнотоннажного технологического оборудования, в частности колонны фракционирования и камер коксования, от сроков завершения поставок которых напрямую зависит график реализации проекта в целом.

На текущий момент указанное оборудование поставлено Вашей компанией в полном объеме с опережением сроков, предусмотренных договором. Стоит отметить, что данный факт характеризует ОАО «Волгограднефтемаш» как добросовестного, надежного и перспективного поставщика.

От имени компании ОАО «Татнефть» им. В.Д.Шашина выражаю Вам благодарность за проделанную работу и надеюсь на дальнейшее продуктивное взаимовыгодное сотрудничество.

С уважением,

Генеральный директор

Н.У. Маганов



Heat-Exchange equipment

JSC “Volgogradneftemash” fabricates Shell and Tube Heat Exchangers of two types: horizontal and vertical ones which are used for heating and cooling of liquid medium and gas medium in the technological processes of gas, oil and petrochemical industries.

Shell diameter, mm	from 300 to 3 200
Length, mm	up to 14 000 (along the straight parts of tubes)
Pressure, MPa	up to 45
Environment temperature, °C	from -196 to +540
Wall thickness, mm	from 12 to 160
Material	Carbon steel, stainless steel, heat-resistant steel; monometal, bimetal.



Gaz-gaz” Heat-Exchanger recuperative

JSC “Volgogradneftemash” had fabricated and delivered more than 30 triple units of recuperative heat-exchangers for “Yarynskaya” Compressor Station during the period from 2011 to 2015 years.

Length	14,6 m
Diameter	1600 mm
Wall thickness	60 mm
Weight of triple unit	226,7 tn



T-6 Feed Heat-Exchanger with double tube sheet

It was fabricated in 2014 year for JSC “Gazprom Neftehim Salavat”

Length	9,5 m
Diameter	1400 mm
Wall thickness	45 mm
Weight	38 tn.



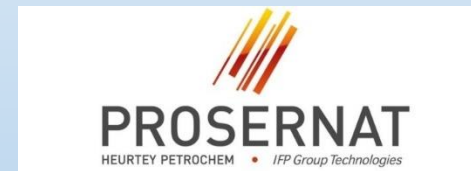
15 HP Heat-Exchangers (up to 30 MPa) with «Breech-lock» closure, fabricated for JSC “Gazprom neft”.

The fabrication was performed in accordance with foreign licensors requirements (Chevron , UOP) and ASME code. Such equipment had not been fabricated before in Russia.

Length is from 4 to 7 meters,
diameter is from 650 to 1550
mm,
weight is up to 190 tn.



JSC Volgogradneftemash has obtained accreditation in companies



Valves

JSC Volgogradneftemash manufactures pipeline valves:

Ball valves DN50-1400 PN 8.0-16.0 MPa;

Nozzle check valve DN300-DN1400 PN 8.0 - 16.0 MPa.

Back flow valve DN700; DN1000 PN8.0 MPa

Control, shut-off, safety valves complies with the STO Gazprom 2-4.1-212-2008 standard and the requirements of the API 6D standard. All valves have passed acceptance tests at the PAO Gazprom testing center and based on the results are included in the 'Equipment Register' for the facilities of PAO Gazprom.



Ball valves DN 50-DN1400 PN 8.0 -16.0 MPa for main pipelines transporting non-aggressive natural gas

Ball valves are used as a locking device on pipelines, tanks and other equipment of field and gas collection stations, gas processing plants, underground gas storage facilities, the linear sections of main gas pipelines, process piping of compressor and booster stations.

Tightness of ball valves according to the class "A" GOST R 54808-2011

Climatic modification: U1 or HL1 according to GOST15150-69

Operating environment: non-aggressive natural gas STO Gazprom 089-2010

Seismicity of areas of operation according to a 12-point MSKscale - 6 to 9 points

Upon customer request, ball valves can be equipped with various control units.



Technological capabilities of JSCVolgogradneftemash in the production of valves

The company is constantly working to improve the design and manufacturing technologies of products

A galvanic section for chrome plating of plugs of a ball valve was placed into service using a unique technology of incomplete immersion of parts in the electrolyte. This allows:

- to guarantee the required quality of ball plugs,
- to reduce the time of manufacturing of ball valves;



Branch of JSC "Volgogradneftemash" Kotelnikov Valving Plant "

It specializes in the production of pipeline valves used in the petrochemical, oil and gas industries, in housing and utilities infrastructure and other industries.

The main products of the company are:
single-seat control valves DN 25-400 mm, PN up to 16 MPa
double-seat control valves DN 25-250 mm, PN up to 6.3 MPa
Shut-off valves DN 50-200 mm, PN up to 16 MPa
ball valve DN 150 PN up to 16 MPa
strainers DN 25-400 mm



Pumping equipment:

Type OH2:

flow rate from 3 to 1600 m³ / h,
head from 15 to 430m,
TKA, NK, NKV brands
modular packaged horizontal
centrifugal console pumps.



Type BB2:

flow rate from 50 to 1600 m³ / h,
head from 30 to 400m,
NT type modular packaged two-
support horizontal centrifugal
pumps with balanced axial force
and radial split of the body.



Type BB2:

flow rate from 50 to 1600 m³ / h,
head from 30 to 400m,
NT type modular packaged
double-beat horizontal centrifugal
pumps with balanced axial force
and radial split of the body.



The specialists of JSC “Volgogradneftemash” along with project institutes perform constantly the scientific research and design and experimental work for the improvement of present and new equipment. With the help of Ansys Fluent program complex, our company performs the improvement of hydraulic characteristics of present pumps and expands their range.

Many years' experience of cooperation with foreign companies-licensors of process technologies like Axens, UOP, ConocoPhillips, Chevron, Foster Wheeler, Sirtec, Nigi, Technip and other allows to introduce advanced solutions in equipment and technology to suggest high-technology and up-to-date equipment of the fuel-economic complex of the Russian Federation

Our company has a great experience in the supply of pumping equipment for the Delayed Coker units of oil-refining companies in Russia. In 2014 year, 30 pumps were fabricated and delivered to the Delayed Coker unit of PAO “TATNEFT”.



JSC Volgogradneftemash was repeatedly recognized by oil companies and oil refineries as the best equipment manufacturer in various categories.

Лучший производитель реакторов 2013 года

Лучший производитель емкостного оборудования 2014 года

ЛУЧШИЙ ПРОИЗВОДИТЕЛЬ
КОЛОННОГО ОБОРУДОВАНИЯ 2015 ГОДА

Первое место в номинации
«Насосно-компрессорное оборудование» 2017 года

ЛУЧШИЙ ПРОИЗВОДИТЕЛЬ
ТЕПЛООБМЕННОГО ОБОРУДОВАНИЯ 2016 ГОДА

Лучшая компания в номинации
«Центробежные насосы» 2018 года

Лучшая компания в номинации
«Емкостное оборудование» 2018 года



ОТКРЫТОЕ АКЦИОНЕРНОЕ ОБЩЕСТВО
ВОЛГОГРАДНЕФТЕМАШ



ОТКРЫТОЕ АКЦИОНЕРНОЕ ОБЩЕСТВО
ВОЛГОГРАДНЕФТЕМАШ

Рейтинг производителей оборудования для НПЗ

Нефтегазопереработка-2018, Москва

Рейтинг производителей оборудования для НПЗ

Ульяновск-2018

Волгограднефтемаши неоднократно признавался ведущими компаниями и производителем продукции

JSC “Volgogradneftemash” is a member of Association of chemical and petroleum engineering companies.



Thank you for your attention



2019 year

