

PRIVATE JOINT STOCK COMPANY

"KHEMZ-IPEC"





“KHEMZ–IPEC”

“KhEMZ–IPEC”, Private Joint Stock Company, serially manufactures submersible equipment sets for oil and water production, which consist of centrifugal pump, electrical motor and motor protector. Our products reliably work in aggressive medium at a depth up to 4000 m, high pressure and temperature up to 135°C. The design of submersible units is based on the world advanced technologies and materials specially developed for the products made by “KhEMZ–IPEC”, PrJSC, as well as those used in defense and space industries.

“KhEMZ–IPEC”, Joint Stock Company, was founded in 1995 on the basis of Kharkov Electromechanical Plant which, for the first time in the USSR, manufactured in 1948 the submersible electric motor as a drive for centrifugal electric pumps. KhEMZ–IPEC”, PrJSC, inherited both scientific and production potential possessed by developers and manufacturers of submersible equipment. The Company has production facility for output of up to 3000 submersible electric motors per year, own patented developments and advanced technology. Our partners include the largest oil-production companies of Ukraine, Kazakhstan and Azerbaijan, as well as many other countries. Kharkov is the place of location of our office and manufacturing sectors occupying production premises with total area of 22000 m² on a separate guarded site with its autonomous utilities.

“KhEMZ–IPEC”, PrJSC, implements the full closed manufacturing cycle, from studies and developments to delivery of finished products and post-guarantee service. The Enterprise has special stations for conducting tests of submersible electric motors and pumps.

In addition to oil production, the submersible equipment sets manufactured by our Company may be efficiently used for production water from artesian wells having depth up to 4000 m. In addition, our plants make it possible to pump out water containing sand and other impurities with concentration up to 1000 mg/l, in highly aggressive medium and at temperatures up to 135°C.

The submersible plants may be manufactured in standard and corrosion-resistant versions, as well as versions made of non-corrosive materials.

The following reliability parameters are specified for our submersible equipment:

- Mean time to failure: not less than 17500 hours;
- Mean time to overhaul: not less than 19000 hours;
- Guaranteed operation time: not less than 18 months;
- Mean service life: 5 years.

KhEMZ–IPEC’s facilities for manufacture of submersible electric pump plants and their design were certified under ISO 9001:2015 system.



CENTRIFUGAL PUMPS AND MOTOR PROTECTORS



CENTRIFUGAL PUMPS

The multistage submersible centrifugal pumps of vertical version are driven from submersible asynchronous electric motors with continuous mode of operation from AC mains with frequency of 50 Hz. They are used for pumping out formation fluid (oil, water and associated gas) from oil wells with angle of deflection from vertical in the place of suspension not more than 60°.

Centrifugal pumps are manufactured with housing diameter of 92 mm and rated delivery from 25 to 300 m³/day and range of heads from 290 to 4,000 m.

The pumps are manufactured in standard, heat-resistant, wear-resistant and heat-wear-resistant versions.

The centrifugal pumps are operated at ambient temperature up to +135°C.

MOTOR PROTECTORS

The motor protectors are designed for protection of internal cavity of electric motors from ingress of formation fluid and for compensation of consumption and temperature changes of oil volume.

The motor protector is operated at ambient temperature up to +135°C, hydrostatic pressure up to 400 kgf/cm², concentration of solid particles up to 1 g/l and concentration of hydrogen sulfide up to 0.01 g/l.

The motor protector may be manufactured in standard and heat-resistant versions.



ELECTRIC MOTORS

The oil-filled squirrel-cage two-pole three phase submersible asynchronous electric motors are designed for continuous mode of operation in wells having angle of deflection from vertical up to 60° .

They are manufactured with housing diameter of 103, 117 and 123 mm and power range of 22 to 320 kW.

The electric motors are manufactured in standard and heat-resistant versions, may consist of several sections.

The ambient temperature where electric motors are to be operated is up to $+135^\circ\text{C}$, hydrostatic pressure in electric motor operating zone is up to 400 kgf/cm^2 , concentration of solid particles is up to 1 g/l and concentration of hydrogen sulfide up to 0.01 g/l .

On additional Customer's application, electric motors, pumps and motor protectors may be manufactured for work in the medium with temperature up to $+150^\circ\text{C}$.

The electric motors may be manufactured with telemetry system or with possibility of connection of telemetry system of types "Electron-TMS", "SKAD-2002-SKS", "IR3 TMS", "TM-01-03" and others (without replacement of electric motor housing parts).





Sealed Metering Plunger Pump Units



Sealed metering plunger pump units are widely used in a wide variety of industries, such as petrochemical and oil and gas production, food, pharmaceutical, agriculture, energy and many others. Main advantage of sealed metering pumps is their ability to accurately regulate and maintain the required amount of liquid supplied in any system. Corrosion resistant stainless steels are used in the flow parts of sealed metering pumps, which determines their resistance to most aggressive chemical environments.

Their distinctive feature and advantage is the complete hermeticity of the pumped liquid in relation to the environment. The seal in such a pump does not require maintenance during operation. Sealed metering pumps are applicable in technological processes where leaks are unacceptable and are designed to pump liquids and suspensions, including toxic and aggressive ones.

Sealed Metering Plunger Pump Units are modular by design.

Pump Unit Assembly consists of:

- Drive
- Coupling
- Electric Motor
- Hydraulic Part

Modular design allows upgrading metering pumps in operation to give them a new quality, i.e. hermeticity. Upgrading can be done on metering pumps of any manufacturer.

Upgrading consists of replacing classic plunger hydraulic unit with a tight one while an old drive stays in place, which allows significant savings.



BUREAU VERITAS
Certification



**PRIVATE JOINT STOCK COMPANY
«KHEMZ-IPEC»**

15-A, Industrialnaya Str., Kharkiv, 61106, Ukraine

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 45001:2018

Scope of certification

Design and production of submersible centrifugal pumps and submersible asynchronous motors.

Original cycle start date: 05 September 2018
Expiry date of previous cycle: NA
Certification / Recertification Audit date: 10 August 2018
Certification / Recertification cycle start date: 05 September 2018
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 04 September 2021

Certificate No. UA229742/1 Version: 0 Revision date: 11 September 2020

Olena Svyrydenko
Signed on behalf of BVCH SAS UK Branch



Certification body address: 8th Floor, 66 Prescot Street, London E1 8HG, United Kingdom
Local office: 5th floor, 28, Simon Petlyura St., Kyiv, 01032, UKRAINE
Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
To check this certificate validity please call: +380 44 354 16 00

BUREAU VERITAS
Certification



**Private Joint Stock Company
«KHEMZ-IPEC»**

15-A, Industrialnaya Str., Kharkiv, 61106, Ukraine

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 9001:2015

Scope of certification

Design and production of submersible centrifugal pumps and submersible asynchronous motors.

Original cycle start date: 30 November 2001
Expiry date of previous cycle: 16 October 2018
Certification / Recertification Audit date: 03 August 2018
Certification / Recertification cycle start date: 17 October 2018
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 16 October 2021

Certificate No. UA228927 Version: 0 Revision date: 07 August 2018

Olena Svyrydenko
Signed on behalf of BVCH SAS UK Branch



Certification body address: 8th Floor, 66 Prescot Street, London E1 8HG, United Kingdom
Local office: 5th floor, 28, Simon Petlyura St., Kyiv, 01032, UKRAINE
Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
To check this certificate validity please call: +380 44 354 16 00

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Certification



Private Joint Stock Company «KHEMZ-IPEC»
15-A, Industrialnaya Str., Kharkiv, 61106
UKRAINE

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OHSAS 18001:2007

Scope of certification

DESIGN AND PRODUCTION OF SUBMERSIBLE CENTRIFUGAL PUMPS AND SUBMERSIBLE ASYNCHRONOUS MOTORS.

Original cycle start date: 05-09-2018
Certification Audit date: 10-08-2018
Certification cycle start date: 05-09-2018

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 11-03-2021

Certificate No. PL000002/U/UKR Version: 1 Revision date: 05-09-2018

Olena Svyrydenko
Signed on behalf of BVCH SAS UK Branch
Local Technical Manager



Certification body address: 8th Floor, 66 Prescot Street, London E1 8HG, United Kingdom
Local office: ul. Migdalowa 4, 02-796 Warszawa

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
To check this certificate validity please call: 22 549 14 00

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BUREAU VERITAS
Certification



**Private Joint Stock Company
«KHEMZ-IPEC»**

15-A, Industrialnaya Str., Kharkiv, 61106, Ukraine

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 14001:2015

Scope of certification

Design and production of submersible centrifugal pumps and submersible asynchronous motors.

Original cycle start date: 13 August 2018
Expiry date of previous cycle: NA
Certification / Recertification Audit date: 10 August 2018
Certification / Recertification cycle start date: 13 August 2018
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 12 August 2021

Certificate No. UA228942 Version: 0 Revision date: 13 August 2018

Olena Svyrydenko
Signed on behalf of BVCH SAS UK Branch



Certification body address: 8th Floor, 66 Prescot Street, London E1 8HG, United Kingdom
Local office: 5th floor, 28, Simon Petlyura St., Kyiv, 01032, UKRAINE

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
To check this certificate validity please call: +380 44 354 16 00

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PRIVATE JOINT STOCK COMPANY “KHEMZ-IPEC”

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