



INDUSTRIAL POWER UNITS

5

YEARS

YEARS

OF GROWTH AND INNOVATION



**DIESEL GENERATOR SETS
PUMP SETS
POWER UNITS**

2010

ABOUT COMPANY

PSM Ltd. is a leading generator sets manufacturer in Russia. Founded in the city of Yaroslavl as a local genset producer PSM has grown into a large company with more than 200 employees and broad production facilities, over 1000 manufactured product units per year and 15% annual sales growth.

Since its foundation in 2005 the company has committed to build superior equipment and develop customized solutions within constantly expanding power range. Having strong engineering experience and high manufacturing potential PSM has introduced a brand new approach to gensets production.

In PSM we do not just build our products; we create fully customized preassembled generator sets to meet the specific requirements of every client. With our knowledge, engineering expertise and creative approach we accomplish the most challenging projects and offer our clients an extensive range of power generation solutions.

PSM assortment includes over 50 models and modifications of diesel generator sets, 200 models of diesel pump sets and a wide variety of power units. Besides our main product lines we are proud to introduce rapidly developing branch of enclosures including winterized block-containers and new launched sound-attenuated canopies.

Today more than 3000 units of generator sets, pump sets and power drives under PSM trademark are operating in all regions of Russia and abroad. They are used throughout a wide range of industries including manufacturing, oil and gas, construction, agriculture, leisure, residential areas, banks, healthcare, telecommunications, emergency aid etc.

Every day we touch the lives of hundreds of people bringing them light, heating and comfort. We strongly believe that our products will improve life, simplify the production process and ensure energy safety wherever they are used.



Diesel generator sets PSM

PSM Ltd. produces generator sets within 12-1000 kW power range and offers accessories, spare parts and services for them. PSM brand gensets are pre-integrated diesel power plants designed to meet the needs of different customers.

Used as a prime or standby power supply in all industries and all kinds of external environment PSM gensets produce high quality electricity and show extreme efficiency and reliability.

PSM offers two main series of diesel gensets: AD series (with Russian engines: MMZ, YaMZ and TMZ) and ADV series (with Volvo Penta engines).

PSM **AD** series including 12-500 kW models is a best-selling genset line in Russia and CIS countries. Wide popularity of AD series is explained by optimal price-quality rate, unpretentiousness and serviceability.

The main advantages of AD gensets - reliability, maintainability and availability of spare parts - are based on specific of the engines used as the main component for this series and high quality of produced electricity is provided by modern Marathon Electric generators (USA) and SUEM control systems with DEIF (Denmark) controllers designed by PSM.

Power range of **ADV** series with Volvo Penta engines includes single-assembly gensets (60-500 kW) and double-assembly gensets (630-1000 kW).

PSM is a certified Volvo Penta OEM-partner which allows us to design, produce and sell competitive equipment by reasonable prices.

For ADV series gensets Volvo Penta engines ensure superior quality, long and stable operation with excellent power results, low operation cost and low emissions.

Due to unique combination of components including Volvo Penta engines (Sweden), Marathon Electric generators (USA) and SUEM PSM control systems ADV series generator sets produce high-quality electricity with low cost per kW (5-7% less than other gensets).

When you choose gensets ADV series you make long-term investments into quality, excellence and pure power.

Two others perspective genset series are currently being designed by PSM engineering department. They are ADJ series (with John Deere engines) & ADM series (with Mitsubishi engines)



Diesel pump sets and power units

PSM Ltd. aims to fully use its engineering experience and production facilities. That's the reason why we develop new product lines and challenge new markets. Besides diesel generator sets PSM has designed two other main product lines: diesel pump sets and power units.

Powerunits

Many special machines and equipment need mechanical power for operation. To meet the specific needs of customers who use mechanically driven machines PSM has designed over 50 models of power units from 10 to 2000 kW unitary power.

Similar to generator sets we offer power units with all possible engines: MMZ, TMZ, YaMZ for PD and YaSU series, Volvo Penta for PDV series and Cummins for PDC series. Produced in different configurations with power takeoff (like TwinDisc), manual gearbox or automatic transmission (like Allison), on base or module frame, with cooling and exhaust system, prestart heaters and other systems and elements power units PSM can be applied throughout a wide variety of industries. Pumping plants, hydromonitors, vibration excitors, drilling units, cementing trucks, compressor plants and many other machines can not operate without PSM power drives.

Today power units PSM are most frequently used as a part of compressor plants and pump assemblies, there is also a great demand for them in oil and gas industry where they are applied to drive drilling units.

With our profound understanding of clients and production needs we know that most customers require non-standard configuration of power units. To answer the specific demands especially within this product segment we design and manufacture power units according to customer's technical requirements.

Based on our knowledge and experience we set to work on the most challenging projects and we are always proud of the result. Even the most demanding customers are satisfied with the equipment supplied and address us when a new need for similar equipment appears.





Diesel pump sets

Diesel pump set is a machine used to pump water and other liquids similar to water in viscosity and chemical activity. It consists of diesel engine flanged to pump, control system, cooling system and exhaust system, all on base frame.

PSM offers a wide range of diesel pump sets with different types of pumps to be used for fire-fighting, irrigation, drainage and industrial needs etc.

Pump sets range includes over 200 models with pumps VD type, CNS type, CN type, Gr type and 1SCN type with wide variety of head and flow characteristics. Among our partners for this project are pump manufacturers Vipom (Bulgaria), Varisco and Caprari (Italy) as well as all diesel engines producers, both Russian (TMZ, MMZ, YaMZ) and foreign (Volvo Penta, Cummins and Perkins).

Taking into account Caprari pumps specific features we have designed a new Caprari pump sets series with excellent characteristics and compact size.

All pump sets have modern easy-to-use control panels which indicate main operating parameters and help to control pump set. As a client-oriented company PSM does not only offer certain pump sets models; we are able to design and manufacture products based on customer's technical requirements. We provide our clients with technical advice and pre-sale support to produce a fully customized solution.

Offering preassembled and pre-integrated solutions we can supply both open and enclosed pump sets in canopies or containers, stationary or mobile applications.



Enclosures and mobile sets



To provide pre-assembled power solutions our company manufactures the equipment ready to operate both indoors and outdoors in any kind of external environment. To speed the installation process and reduce costs PSM offers its customers different types of package: weather-protective canopies, winterized automatic containers and sound-attenuated enclosures.

Since 2008 when PSM founded a new container-producing factory near Yaroslavl the company started manufacturing all types of enclosures itself.

Weather-protective canopies are made of metal sheets and serve to protect the equipment from inclement weather. The enclosure provides easy access to service points and the equipment can be checked and repaired without being removed from the canopy.

Providing pre-integrated power supply solutions we offer diesel gensets in **winterized containers "Sever" and "Sever-M"**. Made of sandwich-panels or wholemetal marine containers they do not just protect the equipment from rain or snow; they are designed to optimize thermal conditions ensuring genset normal ratings and capability. Containers can be fully automatic with self-controlled ventilation and heating, start and stop, fire alarm and fire-fighting systems. Container genset is an excellent solution for long-term autonomous power supply in any external environment.

In early 2010 PSM has introduced new type of package: **sound-attenuated enclosures**. With less noise and vibration produced by gensets mounted into sound-attenuated enclosure it appears to be the best solution for residential areas and at the enterprises where the genset is located close to the powered equipment.

Mobile sets on chassis and on sledge

For the customers who need their equipment to be frequently transported such as emergency services and construction firms PSM offers mobile equipment. Our mobile generator sets will follow your business and power your equipment wherever it goes.

We produce gensets, pump sets and power units on single or double axle trailer or on sledge. Mobile sets on trailer are attended by passport of self-propelled machine or transport vehicle.



Spare parts and services

For long and stable operation the equipment needs good on-time services and spare parts of high quality to change broken or old components.

To provide high quality technical support PSM has organized special service department. Today our service specialists provide all our customers with full range of services.

One of the most important moments in the equipment lifecycle is the very start of its operation. To ensure the proper operation start PSM service department carries out **the commissioning service including:**

- proper installation control, connection to powered equipment check
- control of engine operability and safety
- control system inspection
- equipment operability control at all operating modes, control system regulation
- personnel training for equipment operation, safety and service matters

Among other services offered by PSM are:

- Equipment diagnostics
- Maintenance and technical support
- Repair works
- Product training
- Spare parts and repair kit supply



When the need of repair works and equipment parts change appears PSM offers the full range of spare parts for diesel gensets, pump sets and power units. We guarantee spare parts quality as we purchase them directly from the manufacturers. **Our spare parts offer includes:**

- Spare parts for diesel engines MMZ, YaMZ, TMZ and Volvo Penta
- Spare parts for generators
- Spare parts for control systems
- Radiators and cooling systems
- Prestart heaters
- Measuring devices
- Diagnostic equipment for engines





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