

DOBROWOLSKI

MANUFACTURER OF SPECIALIZED VEHICLES
FOR WATER SUPPLY COMPANIES, MUNICIPAL SERVICES,
AIRPORTS AND ROAD ENGINEERING



History

Traditions of manufacture of equipment for the use of municipalities, road engineering and airports in the Dobrowolski company reach back to 1957. At that time, the production took place under the brand of Presko, which was later changed into Wuko. Privatization of the company occurred in 1998 as a result of a 4-year managerial pilot scheme contracted with the Ministry of Treasury, the aim of which was restructuring and privatization of the company. The company became part of the Dobrowolski Capital Group. Since then products of the Company have been sold under the "DOBROWOLSKI" brand. The beginning of 2000 caused the extension of production taking into account the needs of Polish Army as well as the demands of airfields, both military and civil. Consequently, two product lines have been created:
a/ equipment used in winter maintenance of roads, squares and airfields
b/ and special purpose tankers
In 2010 cooperation with Polish Science began.

Cooperation started with several educational centers:

- Wrocław University of Science and Technology in the scope of engineering calculations
- Jan Amos Komeński State School of Higher Vocational Education in Leszno, particularly in the scope of modelling and implementing the Leszno Model of Dual Studies and cooperation in the preparation of curriculum of Leszno Polytechnic Institute as an External Stakeholder,
- Częstochowa University of Technology in the scope of implementation of innovative solutions of prototype products and profiling the Research and Development Centre under the INNOMOTO program of the National Center for Research and Development. In 2016 the consolidation of the Dobrowolski Capital Group took place, following which Dobrowolski Sp. z o.o. took over shares of other Companies.



The Company



The main office of Dobrowolski and the production facility are located in Wschowa, in Lubuskie Voivodship in western Poland. The Company has the indispensable manufacturing base supported by the Design Department, which, along with qualified personnel, allows manufacturing standard equipment and implement non-standard projects, perfectly tailored to Client's demands. We continue to expand the choice of products we manufacture based on our experience and suggestions of our clients.

Production



Manufacturing of our superstructures is based on the highest quality materials and components supplied by renowned, worldwide as well as domestic manufacturers. Our products are serviced by professionals with a wealth

of experience using specialized equipment. Our advantage is the ability to respond swiftly to market needs and the flexibility in adaptability of the equipment to individual needs of Clients.



The Company functions in accordance with requirements of the Quality Management System and has ISO certificate 9001:2015 as well as AQAP 2110:2016 in the scope of designing, production, sales and servicing

of road vehicles, as well as special-purpose equipment for road maintenance, airports, bridges, municipal services, water and sewerage supply companies as well as tankers.



Design Department



The Dobrowolski Design Department are qualified engineers with a vast experience in designing vehicles. The process of superstructure designing is supported by design software such as SolidWorks or CAD (3D). We have the necessary technical and technological expertise, highly motivated personnel and production capacity allowing us to create modern vehicles satisfying client requirements in the scope of technical parameters.

Service



All products of the Dobrowolski brand are subject to producer's warranty. In order to ensure the highest quality and full satisfaction of the User with our products, we ensure constant professional service support in the warranty period. Upon the special request of the Client, in case of an additional service agreement, we can supervise the work of the equipment also after expiration of the warranty. Service procedures include ongoing inspections, maintenance, repairs, preparation of equipment for the season, and diagnostics of equipment. Comprehensive support of our Clients is for us of utmost importance. Our employees stand out due to their immense experience supported by education and qualifications.

PRODUCT GROUPS

Winter and summer
road maintenance



Snow ploughs
Salt and sand spreaders
Road sweepers
Sprinklers

Tankers



Gully emptiers
Sewage cleaning tankers

PRODUCT GROUPS

Specialized vehicles



ADR tankers class 3 and 9
Tankers for transport of fuel

Airport equipment



Pulled sweeper-blowers
Compact sweeper-blowers
Airport sprinklers
Airport sprinkler-spreaders

WINTER ROAD MAINTENANCE

Salt and sand spreader ORION

ORION salt and sand spreader is designed for winter road, street and square maintenance. The device is controlled from the dashboard in the driver's cabin by means of a microprocessor which allows maintaining desired parameters regardless of changes in velocity (follow-up system). Control and hydraulics of BOSCH REXROTH.

Orion is manufactured in various options. The spreader is available in three control versions: BASIC, STANDARD and COMFORT.



WINTER ROAD MAINTENANCE

Snow ploughs PPE32

Single side, road snow ploughs designed to remove snow and after-snow mud. Two-layer moldboard produced from impact, low-temperature and wear resistant plastic with low coefficient of friction. The plastic retains memory of shape. End-outline marker lights embedded within the moldboard. The ploughs is controlled from the driver's cabin using control panel (lifting, lowering, turning left and right, extra press function, "float" function).



More snow ploughs can be found at www.dobrowolski.com.pl

WINTER ROAD MAINTENANCE

PDS snow ploughs

PDS type snow ploughs is a sectional, heavy motorway snow ploughs with an electro-hydraulic drive. It is used in winter to clear highways and expressways from the snow, after-snow mud and ice. The PDS ploughs moldboard is made from steel of improved resistance. It consists of three, four or five sections which adjust to an uneven road, and lift up when the ploughs encounters an obstacle. The moldboard segments are connected with the frame of the ploughs by means of PUR connectors. The moldboards are equipped with plastic covers which ensure efficient discarding of the snow onto the side of the road. Position lamps are mounted on the side of the moldboard. The power supply is located in the casing mounted to the intermediate frame. It consists of hydraulic pump, located in the oil container, driven by 24 VDC electric motor. Excess flow valve protects the system against overload.



More snow ploughs can be found at www.dobrowolski.com.pl

SUMMER ROAD MAINTENANCE

Airport sprinkler PZ

PZ sprinkler/flushers are used to sprinkle and wash paved surfaces of roads and squares. It can also be used, for instance, to supply process water or water in fire extinguishing actions. Jetted steel engine with two-level anti-corrosion protection with a connection to fill up directly from the hydrant. The rear part to contain the pump and fittings closed by a hinged flap. Flushers are turned on and off and pressure is regulated from the driver's cabin. Spraying beam under flushers. Water can be pumped to sweepers.

Firefighting nozzle with a hose of 50 mm diameter. Water pump with two rubber rotors, with double-ball bearing, turning in diverse directions, and driven by two parallel hydraulic motors (volume up to 1500 l/min, pressure 8 bar). The water pump drive from the chassis PTO. The driver's cabin features an easy-to-use control



panel, allowing turning on and off individual flushers and switching on warning lights. Flushing takes place by means of aluminum flushers (featuring individual turning on and off from the cab). Sprinkling takes place by means of a spraying beam.

TANKERS

Bifunctional tanker for sewage cleaning SSC8-K

Bifunctional SSC series vehicles designed for sewage cleaning are applied to clean sewers with the diameter of 50 to 800 mm using high-pressure water as well as to suck off impurities and sludge. Cleaning is done with cleaning heads attached to high-pressure hose. The most popular model is SSC8-K used for sucking and flushing. The tank with the total capacity of 8 m³ with the division corresponding the needs of clients. The application of cassette feeding unit decreases the total mass of the vehicle and most of all allows limiting the height of the vehicle to approx. 3.4 m. The length of the suction hose which fits into the cassette is 16 m.



TANKERS

Sewage cleaning tanker SC7

Single-function SC tanker is designed for sewage cleaning (combined sewer, sanitary and rainwater systems as well as sewage pumping station tank cleaning) using high-pressure water as well as cleaning heads and nozzles. The vehicle can be used in operating temperatures down to -15°C . Tank capacity of 7 m^3 , locked cabinets to transport the equipment, radio controlling, compact construction.



TANKERS

High-pressure gully emptier SKW

SKW-type gully emptiers are a type of tankers with a wide range of capacity and a variety of accessories. They are designed for disposal of liquid impurities from settlements with underdeveloped water supply system. They can also be used to collect and transport other liquids. Additionally, the tanker is equipped with a water system allowing cleaning and unblocking sewage connections with the diameter of 250 mm and length of up to 50 m by means of sewer nozzles. Cylindrical steel tank with rear bottom board, resistant to pressure of 0.5 bar. Net volume of 14,000 liters, including clear water tank of 800 liters located on the intermediate frame.



TANKERS

SK gully emptier

SK gully emptiers are designed for transport and collection of liquid waste and they can also be used to collect and transport other liquids. Internally ribbed single-chamber tank made of carbon steel is mounted to the intermediate frame in two places: in the front, flexible connection by means of a saddle with rubber pad, and at the back, by means of two-point tilting connection.

This kind of tank assembly eliminates unfavorable stresses which might occur while driving over an uneven surface. Standard continuous operation compressor is pneumatically driven.



SPECIALIZED VEHICLES

Tanker SK142N

Vacuum-filled SK 142N ADR tankers are designed for the collection and transport of dangerous goods waste class 3 and 9 and cleaning of sewage systems and separators.

The tanker is marked with the code L4BH acc. to ADR. The tanker has standard protection devices provided for in ADR regulations taking into account the possibility of transporting combustible waste and waste requiring anti-electrostatic protection during loading and unloading. The tanker is manufactured based on documentation agreed with Transport Technical Supervision. Two-chamber, cylindrical tank made of steel resistant for corrosion with a total volume of 14 m³. The container is divided by a fixed bulkhead, which separates the volume of 2 m³ designed for clear water in the front part, and 12 m³ for sediment in the rear part. The tank is ribbed inside with rings, tilted backwards at the angle of approx. 3°.



SPECIALIZED VEHICLES

Tanker - distributor CN33

Tanker-distributor for transportation of fuels with measurement installation type CN33 is designed to transport liquid fuels on hardened surfaces, in particular:

- 1203 MOTOR FUEL or LIGHT NAPHTHA or PETROL, Cl.3, F1, II,
- 1202 GAS OIL or DIESEL FUEL or LIGHT HEATING OIL (flash point not higher than 60°C), Cl.3, F1, III,
- 1202 GAS OIL or DIESEL FUEL or LIGHT HEATING OIL (flash point higher than 60°C but not higher than 100°C), Cl.3, F1, III,
- 1202 GAS OIL or DIESEL FUEL or LIGHT HEATING OIL (flash point according to standard EN590:2004 Cl.3, F1, III,

- 1202 GAS OIL or DIESEL FUEL or LIGHT HEATING OIL Cl.3, F1, III,
- 1223 JET KEROSENE Cl.3, F1, III,
- 1863 JET FUEL TO TURBINE ENGINES (vapor pressure in temperature 50°C not higher than 110 kPa), Cl.3, F1, II,
- 1863 JET FUEL TO TURBINE ENGINES Cl.3, F1, III,
- all kinds of fuel, including jet fuels ADR specific, permitted for transportation in LGBF tankers.



SPECIALIZED VEHICLES

Tanker - distributor ND33

Tanker-distributor ND33 for transportation of fuels is designed to transport liquid fuels on hardened surfaces and for temporary storage and discharge of purified, dehydrated and measured amounts of liquid fuels of one the kinds below:

- 1203 MOTOR FUEL (PETROL), Cl.3, F1, II,
- 1202 GAS OIL or DIESEL FUEL or LIGHT HEATING OIL Cl.3, F1, III,
- 1223 JET KEROSENE Cl.3, F1, III,
- 1863 JET FUEL TO TURBINE ENGINES (vapor pressure in temperature 50°C not higher than 110 kPa), Cl.3, F1, II,
- 1863 JET FUEL TO TURBINE ENGINES Cl.3, F1, III.

ND33 tanker-distributor allows loading and unloading fuel using its own pump with the option of suction from depth, servicing and cooperation with one or two tankers or containers, cooperation with a filling terminal - bottom loading with pumps on the terminal with sealing of fuel evaporation emissions system (vapor balance connection).



SPECIALIZED VEHICLES

Tanker - semi-trailer N30N

NA30N tanker - semi-trailer is designed to transport hazardous materials in ADR class 3 and 9 marked with the code L4BH. Tanker - semi-trailer can cooperate with any 2- or 3-axle tractor satisfying the following requirements: the frame according to PN-ISO 1726, has 2" coupling pivot according to PN-ISO 337, braking and electric installation connections are compatible with semi-trailer outlets, satisfies requirements of FL vehicles according to ADR regulations, and is equipped with the hydraulic system adjusted to pump hydraulic drive on the semi-trailer.

Cylindrical tank, bottom-boards and all elements welded to the tank in the tanker- semi-trailer NA30N are made of austenitic steel. Cylindrical tank jacket is tilted backwards. The jacket is supported with baffled plates preventing the liquid from sloshing around and dividing the tank. The tank has supports: front with coupling plate and fastened coupling pivot, middle with fastened support legs and rear with plates to fasten the end carriage with screws.



AIRPORT SNOW REMOVAL EQUIPMENT

Vammas SB4505 and SB5504 sweeper-blowers

Vammas SB4505 and SB5504 are the most cutting-edge airport sweeper-blowers. The major innovation of this kind of sweeper-blowers is based particularly on the change of location of the engine to the front of the machine, which improved traction conditions of the unit and simplified daily servicing operating conditions. Design change improved aerodynamic features. The broom in its operating position is independent from the frame of the machine and moves as an independent trolley, which is only pulled but not suspended on the machine frame and does not interfere with the movements of suspension of the rear axle of the sweeper and the tractor. The hydraulic cylinder to lift and lower the broom does not constrain the movement of the broom upwards and downwards due to unevenness on the runway or apron.



AIRPORT SNOW REMOVAL EQUIPMENT

The VAMMAS CSB 3600 compact sweeper-blower

The VAMMAS CSB 3600 compact sweeper-blower is designed to remove snow from aprons, taxiways and runways in airports. The sweeper is built upon appropriately adjusted MERCEDES chassis. Standard rear axle of the chassis is replaced with a steering axle, which may be directed opposite to the front axle or in the same direction. The frame of the chassis is raised by 300 mm in relation to the standard one and the axle arrangement is widened. The cylindrical broom is placed between the axles of the vehicle, whereas the ventilator turbine cleaning the surface is built-in behind the rear axle. The unit works very precisely, and brush speed change as well as its hydraulic ground pressure control ensures quick and efficient operation. Thanks to its compact construction and rear steering axle the device is highly maneuverable. The CSB3600

can work simultaneously as a plow, a broom and a blower. Individual operation of each of these functions is also possible. Thanks to that, the unit can also be used for summer cleaning.



AIRPORT SNOW REMOVAL EQUIPMENT

Runway sprayer ORION PP2



The ORION PP2 runway sprayer is designed to remove snow, ice or frost from airport runways, taxiways and aprons of airports by applying designated chemicals onto the surfaces. The tanks, pump unit and the spraying unit can cooperate with most commonly applied agents based on acetates, formic acid, glycols and urea solutions. The sprayer operation of the ORION PP2 is controlled from within the driver's cab by a microprocessor, allowing the retention of the desired parameters regardless of variations in speed (follow-up system is applied).



AIRPORT SNOW REMOVAL EQUIPMENT

DEICER sprayer / spreader

DEICER sprayer / spreader is designed for winter maintenance of runways, taxiways and aprons, i.e. for de-icing surfaces using chemical agents. The tanks, pump unit and the spraying unit can cooperate with most commonly applied agents based on acetates, formic acid, glycols and urea solutions.

The sprayer operation of the DEICER is controlled from within the driver's cab by a controller. It allows maintaining desired parameters regardless of changes in velocity (follow-up system).



AIRPORT SNOW REMOVAL EQUIPMENT

Snow ploughs

LPC snow ploughs S series are new-generation foldable snow ploughs. They are characterized by good operating parameters, high efficiency, easy operation and short time of connecting with the carrier. They are designed for clearing airport runways, taxiways and aprons. The ploughs can be adjusted to various carriers satisfying the capacity condition. Two extreme segments are folded hydraulically, allowing reaching through narrow gates, e.g. garage doors.



Vammas runway snow ploughs P series are characterized by a very easy assembly and dismantling of moldboard by the driver from the cab. Adjusted for assembly on the carrier plate of the base truck. The moldboard produced from impact, low-temperature and wear resistant plastic with low coefficient of friction.





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