



Towards new possibilities

WCBKT S.A. on the civilian market

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GPU-7/90 TAURUS designed and manufactured by WCBKT S.A. during the support of the largest passenger aircraft in the world AIRBUS A-380.

WCBKT S.A. - Central Military Bureau of Design & Technology, being a continuator of the established in 1968 Institute of Experimental Production of the Military University of Technology, it is involved in the construction and production of modern equipment for military needs. WCBKT S.A. is the only company in Poland that comprehensively equips military airports with ground support equipment (GSE). Additionally, for a few years now, the company has also been active on the civilian market offering GSE equipment and, after taking over the competence of company ZREMB Wojkowice, airport equipment.

WCBKT's intellectual and technical potential allows to conduct activities involving the design and production of modern equipment and ensure its efficiency throughout the life cycle. Thanks to the fact that the company is the owner of the applied solutions, it has unlimited possibilities in terms of modifying and modernizing offered devices. Additionally, it also provides a full range service.

Equipment manufactured by WCBKT S.A. has proved itself as being failure-free during foreign missions of the Polish Armed Forces in such places as Iraq and Afghanistan, as well as at Baltic Air Policing operation (military surveillance of Estonia, Lithuania and Latvia airspace). The company is continually looking for state-of-art construction solutions, improving the manufactured equipment and expanding the company's offer with new devices. WCBKT S.A. has an Integrated Quality Management System compliant with the ISO 9001:2015 and AQAP 2110:2016 standards as well as an Internal Control System.

WCBKT S.A. is part of the Polish Armaments Group (PGZ S.A.), which allows the use of the potential of several dozen companies and accomplishing high-end tech projects.

Since 2018, the company opened the Ground Support Equipment Delivery and Maintenance Center (CDiSS NOSP). Its main task is to ensure comprehensive availability and efficiency of devices utilized by all types of aircraft available in the Armed Forces of the Republic of Poland.

The CDiSS NOSP task is not only to ensure the efficiency of ground support equipment manufactured by WCBKT S.A., but also all other devices of this family used by the Polish Armed Forces, delivered with new aircraft (C-130, C-295, F-16 and M-346).

WCBKT S.A. offer includes: ground power units for civilian and military use, distributors, gasifiers, air compressors, hydraulic devices, dehumidifiers, lighting equipment, tow tractors, airport equipment, training equipment, as well as fire-extinguishing and explosions suppression systems.

Civilian version of GPU-7/90 TAURUS power supply units developed and produced by WCBKT S.A. were used, among others, to support the Air Force One plane during the visit of the US President Donald Trump in Poland in July 2017. Next year, the latest military ver-

sion of LUZES V/D series V ground power unit, mounted on Jelcz 443.32 truck, was honoured with the National Security Leader award in the Innovative Project category. The first device of this type was handed over to the 33rd Transport Aviation Base in Powidz in May 2018.

LUZES V/D series V ground power unit is designed for powering on-board systems, starting engines and checking the technical condition of on-board equipment of all types of aircraft used by the Polish Armed Forces. The device is designed for continuous operation and can support simultaneously two aircrafts at any conditions (airport, airfield, contingency area).

During the International Defence Industry Exhibition in Kielce in September 2018, the AH-64 Apache attack helicopter presented by Boeing (which is proposed to Poland as part

WCBKT S.A. constantly looks for new construction solutions, improving the manufactured equipment and expanding the company's offer with new devices. Photo: the fleet of WCBKT-produced devices in one of the Polish Air Force bases.



of the Kruk programme for the replacement of Mi-24 helicopters) was powered by one of the devices manufactured by WCBKT S.A. – LUZES II/M series V ground power unit. The crew of AH-64 helicopter stated that the device manufactured by the Polish company was better than the American one!

The scope of services provided by WCBKT S.A. includes: warranty and post-warranty service, repairs and modernization of equipment, specialist training of equipment users and testing, assessment and evaluation of GSE devices for aircrafts and training equipment.

Detailed offer of WCBKT S.A. for the civilian market includes GSE and airport equip-



❶ A special version of the LSP 3S passenger stairs for the support of a government Boeing 737-800 aircraft.

Additionally, within the framework of airport handling equipment WCBKT S.A. offers: luggage transporters, adjustable lifts, trailed luggage carriers, tanks for water drenching from the plane and tanks for gravitational de-watering of aviation fuel.

On a special order, the company can manufacture airport tug frames made according to specifications given by the ordering party. The frame is designed for the installation of hybrid equipment of an airport tug.

It should be emphasized here that the possibility of adapting the devices to the individual needs of the ordering party is one of the most important assets of WCBKT S.A. in its ability to acquire customers. The company has a well-trained staff with different competences which can cope well with any kind of equipment. Number of blue collar workers at WCBKT S.A. is comparable to the number of engineers!

The company has research and development as well as service divisions. The latter collects data, user comments and tries to eliminate defects, as well as provides information to the production department to systematically eliminate problems. WCBKT S.A. conducts system analysis of its products, without leaving the user without support. It maintains constant contact with the operation departments of airport handling companies and through the use

ment. The GSE include: ground power units, dehumidifiers, lighting equipment, tugs and diagnostic equipment. As for the airport equipment, the company offers: passenger stairs, service stairs, trolleys, trailers, frames, roller extenders, transporters, tanks, dividers and airport tug frames.

The airport handling equipment is made on the basis of the current standards and aircrafts' manufacturers guidelines.

Passenger stairs are designed for passenger traffic on a wide range of airliners with jet and turboprop propulsions (Airbus, Avro, Boeing, Bombardier, McDonnell Douglas, Iljuszyn, Yakovlev and Tupolev). These are stairs of various technical levels with a wide range of height adjustment.

Service stairs, due to their purpose, are intended for specific types of aircraft. They can be used for various types of inspections and repairs of individual segments of aircraft (hull, wings, engines, etc.).

Regarding trolleys, the company offers: luggage trolleys, environmental trolley, as well as Auxiliary Power Unit (APU) trolley. A set of available luggage trolleys includes models from WB 1 to WB 13. Environmental trolley is designed to neutralize and remove small size stains of fuel and petrochemical spills. The APU trolley is designed for transporting an Auxiliary Power Unit for Airbus A320 aircraft. In addition, it can be used to transport small details in the hangar.

Trailers offers include: trailers for pallets and aviation containers with allowable load: 1500 - 16 000 kg; DHL trailer for aviation containers and pellets (allowable load: 1500 kg); a helicopter landing, take-off and transport trail-

❷ Service platform - another device manufactured by WCBKT S.A., enabling ground support for aircrafts such as Boeing 737.

❸ This year WCBKT S.A. aims to sign a contract for equipping cargo terminal and passenger terminal at one of the largest civilian airports in the country. Photo: LSP 3S passenger stairs on tow truck.

er suitable for landing skids (weight up to 5500 kg and maximum skids spacing 3000 mm); trailer with rotating platform PT 05 (it has full rotational capacity and can be locked manually every 90 degrees, allowable load: 5000 kg); and a trailer with scales (mobile weighbridge with capacity of 8000 and 15 000 kg, it has functions of weighing and determining COG of the load, the weight is not adapted to carry the load).

In turn, among frames the company offers: frames for aviation containers and pallets and frames with rollers.





GPU-7/90 TAURUS ground power unit and LSP 35 passenger stairs, are the devices that becomes a hit in the WCBKT S.A. offer.

of telemetry can easily help them. In the event of a failure of the device, the company uses a remote visualization system for its operation and can check specific parameters. It is able to read them remotely and provide direct assistance. As a result, it is able to react quickly and help the customer remotely, without waste of time. The best example here is the GPU-7/90 TAURUS power supply unit. If a trip to the customer is needed, the service and maintenance teams are dispatched to take action. They are kept in a 24-hour-a-day readiness.

WCBKT S.A. provided, as part of logistics package, everything that is necessary for ground support of three Boeing 737-800 planes, which are going to be deployed in the 1st Airlift Base in Warsaw (the last aircraft is to be delivered in 2020; WCBKT S.A. already delivered following devices: tractor, LSP 35 passenger stair, trolleys, service stairs and a tank for water drenching from the plane, among other things). They are intended for the air transport of state authorities of the Republic of Poland.

The company wants to make GPU-7/90 TAURUS ground power unit its export hit for civilian aviation. In particular, it is counting on the rapid development of Polish airports and the planned construction of the Central Communication Port. WCBKT S.A. ambition is to bring about a situation where in the future all Polish airports will be dominated by GSE and airport equipment supplied by domestic companies.

In the previous year, eight devices of this type were sold. It means that about twenty GPU-7/90 TAURUS power supply units are used in Poland today. This year it is expected the delivery of a dozen or so devices of this type.

Today WCBKT S.A. works on future GSE devices which are essential for equipping a modern civilian airport. Polish solutions and domestic producers should be utilized to the maximum extent in their design.

One of the products for the civilian market that the company wants to offer in the near future is a self-propelled luggage conveyor with electric drive. Preliminary plans assume

the handover of two prototypes of the device in the autumn to the handling companies for operational tests. After gathering the comments from future users and introducing necessary adjustments, WCBKT S.A. plans to place self-propelled luggage conveyor with electric drive in its offer.

Another direction of works is to increase the automation of passenger stairs as a result of installing a proximity sensor to the fuselage and installing an automatic access system to the aircraft. This is to allow the reduction of the operating costs of stairs, as a result of limiting number of its crew.

Moreover, WCBKT S.A. conduct works on tow tractors with electric drive.

Previous year was very demanding from WCBKT S.A., which led to the doubling of company's profit in relation to 2017. Large deliveries of GSE for the Polish Armed Forces were realized and services were intensively provided (last year, under the agreement with the 3rd Regional Logistics Base, over 500 services and repair activities were carried out). The timeliness also deserves to be emphasized - all manufactured devices were transferred to recipients in accordance with the deadlines specified in the contracts.

As for the airport handling equipment, WCBKT S.A. recently delivered devices of this type as part of the logistics package for Boeing 737-800 aircraft for the transportation of the most important people in the country. The company also carried out an order covering eight LSP 35 passenger stairs for one of the largest handling agents in Poland. This year, the company is striving to sign a contract for the equipment of the cargo terminal and equipping the passenger terminal at one of the largest airports in the country.

In connection with the extension of the offer on the airport equipment, there were inquiries and contacts from foreign companies (Algeria, Spain, Lithuania, Sweden). This year, the company takes part in the Inter Airport Europe in Munich exhibition. It will present an extended offer of GSE devices for the civilian market and the entire set of airport handling equipment. Considering the wide range, diversity and high quality of specialist devices, the company may expect a lot of interest and many inquiries from foreign markets.

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Photos in the article: WCBKT S.A.



GPU-7/90 TAURUS power supply unit meets the highest global technical standards and requirements related to the support of modern airliners at all airports.