



Equipment for Police helicopters from WCBKT S.A.

Stanisław Kutnik

WCBKT S.A. – Central Military Bureau of Design & Technology, part of Polska Grupa Zbrojeniowa, has gained a new client for its product of the newest Generation, power supply LUZES V/D series V/P. Airport aircraft power supply system LUZES V/D series V/P was developed and manufactured at WCBKT S.A., in accordance with the requirements of the Police Headquarters.

Selection of the LUZES V/D series V/P system manufactured by WCBKT S.A. took place as a result of an open tender. The system, after passing many various tests, was delivered to the Ordering Party in November 2021. It is used in the process of servicing aircraft used by the Police Aviation. This process includes, inter alia, power supply of on-board aircraft installations during routine maintenance, including preparation of the aircraft for flight, service works, repairs and engine start-up.

Taking into account the fact that the Police aviation has aircraft of various types and origin from various manufacturers (including Mi-8 helicopters made by the USSR and S-70i Black Hawk made by the US), it must be able to effectively use one type of power supply for all aircraft in use. The system developed by WCBKT S.A. meets those requirements in 100 percent.

Currently, its base is the Warsaw-Babice airport, where it will be used to service helicopters stationed there, such as: Mi-8 - medium transport helicopter, S-70i Black Hawk - multi-purpose transport helicopter, Bell 412B-HP and Bell 407GX i - multi-role helicopters.

Training in the process of powering the S-70i Black Hawk helicopter using the LUZES V/D of the V/P units run by WCBKT S.A. at the airport Warsaw - Babice. Photo Junior Inspector Anna Kędzierzawska/Public Relations Office of the Supreme Police Headquarters



The design of the LUZES V/D series V/P is based on a standard 15-foot container frame. The system is built on the above-mentioned the frame and is completely independent of the carrier which forms its transport chassis. It can be both a truck and a towed trailer adapted to the task of carrying the system in the container frame. In the case of the Polish Armed Forces, the Jelcz 442.32 truck is the most frequently chosen truck, while the Police chose a MAN truck. The offer



The LUZES V/D series V/P unit powers the S-70i Black Hawk helicopter at the Warsaw-Babice airport. Photo Commissioner Piotr Maciejczak/Public Relations Office of the Supreme Police Headquarters.





The LUZES V/D series V/P unit powers the S-70i Black Hawk helicopter at the Warsaw-Babice airport. Photo Artur Orliński / Public Relations Office of the Supreme Police Headquarters



LUZES V/D series V/P unit prepared for departure from WCBKT S.A. to the Warsaw-Babice airport. Standing by the unit are: Mr. Artur Gałęzowski - President of the Management Board of WCBKT S.A. (in the middle) and design engineers of WCBKT S.A. Mr. Hubert Jakubowski - Head of the Research and Development Department (on the left) and Mr. Kamil Gontarz - Chief Project Management Specialist (on the right). Photo WCBKT S.A.

of WCBKT S.A. also includes a version of the LUZES V/D series V system on the other chassis (trailer with certification for transport on public roads at speeds of up to 85 km/h).

The delivered to Police Aviation LUZES V/D series V/P system is a mobile device mounted on a MAN vehicle, which can move on any ground at landing sites and fields, including emergency and backup airfields without stationary equipment. It does not require an external power source and is powered by a diesel engine. The device delivered to the Police can power two aircraft at the same time.

WCBKT S.A. – Central Military Bureau of Design & Technology participates together with the Białystok

University of Technology in a project co-financed by the National Center for Research and Development (NCBiR) entitled “Reconfigured Aircraft Power Supply System 270V - 28V d.c.”. As a result of the implementation of this project, a specialized system will be developed, which will be used, among others in the modified LUZES V/D series V devices. The use of this system will enable the fulfillment of the requirements imposed on the system of this type intended for supplying fifth generation military aircraft, including the multi-role F-35 fighter.

The new Reconfigured System 270V - 28V d.c. is built to be compatible with the design of the LUZES series of





LUZES V/D on the chassis of the JELCZ 442.37 off-road truck with the F-16D plane.
Photo Mirosław Garwoliński



During the XXX International Defense Industry Exhibition in Kielce (September 6-9, 2022), WCBKT S.A. – Central Military Bureau of Design & Technology, part of the PGZ Group, invites you to visit its stand – HALL C, where the following systems will be presented:

- » Load for current of the LO-115/260D type to control all GPUs (aircraft power supplies) in the voltage range of 3 x 115/200 V a.c.;
- » TWS-3 ORTLES-3/M'20 trainer - a modified version of the simulator used for the initial training of the gunner-operator of the BWP-1 infantry fighting vehicles;
- » STOPFIRE® Fire and Explosion Suppression System for protection against fire and explosion in the compartments of tanks and combat vehicles. The system was implemented in the NPBWP BORSUK vehicle newly developed by Huta Stalowa Wola S.A.;
- » The latest 6th generation LUZES II/M Airport Power Supply Unit for Aircraft, designed to supply direct and alternating current to on-board aircraft systems. At this year's MSPO, the system will power the AH-64 Apache helicopter at the Boeing's outdoor stand. Submitted to the DEFENDER competition.



The latest 6th generation LUZES II/M Airport Power Supply Equipment, submitted to the DEFENDER competition. Photo WCBKT S.A.



power supplies. In this way, WCBKT S.A. will be able to equip with the 270 - 28V d.c. system the newly manufactured LUZES V/D and LUZES II/M systems and retrofitting the existing LUZES units with the new system, without the need to introduce labor-intensive, complicated changes to their structures. The new power supply system will enable the use of LUZES devices for servicing fifth generation aircraft while maintaining their

existing capabilities for servicing other types of aircraft.

WCBKT S.A. for over 50 years has been delivering, developing and manufacturing aircraft ground handling equipment, used for all types of airplanes and helicopters.

The company is currently the only Polish producer that can comprehensively service Polish airports, ranging from aircraft ground handling equipment through hangar and

airport equipment, to fully equipped modern technological lines for Cargo terminals.

Each aircraft ground handling equipment unit and hangar and airport equipment produced by WCBKT S.A. meets the required quality and safety standards.

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Article prepared on the basis