



## **WERMA**<sup>®</sup> *Success Story*

# EvoSIGNAL lights up “green” airports

ITW GSE deploy WERMA’s new EvoSIGNAL beacons on its environmentally friendly range of Ground Power Units

### **MAKING THE GRASS “GREENER”**

All around the world airports are becoming more and more “green”. Airport Authorities are facing increasing challenges to make airports cleaner and more environmentally friendly. Many of the world’s largest airports are located in or around built-up areas and the demand for cleaner emissions from equipment and machines is rising steadily.

ITW GSE has adopted a key role and with its products is making a great contribution in reducing CO<sub>2</sub> emissions at airports. This has been achieved

by the deployment of clean, reliable and low-cost GSE systems (Ground Support Equipment).

### **LEADING THE WAY FOR THE FUTURE**

Ground Support Equipment (GSE) is the support equipment found at an airport, usually on the apron, the servicing area by the terminal. This equipment is used to service the aircraft between flights. As the name suggests, ground support equipment is there to support the operations of aircraft whilst on the ground. The main purpose of ITW GSE ground

power units is to provide power to aircraft before take-off and after landing, where the aircraft typically still needs power to light up the cabin, for cleaning and for powering various displays in the cockpit and in the cabin. Thus enabling the aircraft’s ancillary engine to be switched off.

ITW GSE also produces Pre-conditioned Air units that provides climate controlled air to the aircraft cabin whilst parked.

ITW GSE focuses on supplying the cleanest, most reliable and cost-efficient GSE to the aviation industry.

### **ABOUT ITW GSE**

**ITW – the leading supplier of ground power units, pre-conditioned air units, cables & hoses to the aircraft industry**

ITW GSE is a proud division of Illinois Tool Works. ITW GSE enjoy a global market-leading position producing ground power and pre-conditioned air units as well as supplying cables and hoses.

Its’ know how is derived from over 100 years’ experience in this field with more than 80,000 units supplied to over 100 countries.

The company’s products are making a significant contribution to the reduction of CO<sub>2</sub> emissions at airports.

As part of a brand consolidation process, the company merged their

legacy brands in 2018 (AXA Power, Hobart, Houchin). Since then, they sell the entire ITW GSE portfolio under one single name “ITW GSE.”





Safety first! The 7400 eGPU is fitted with optical and audible beacons

The company's line of solid-state ground power units and pre-conditioned air units are powered via the airport's electrical mains, and is, without any doubt, the most environmentally friendly ground support equipment. However, for airports without sufficient electrical infrastructure or for remote parkings, solid state ground power units can't be used, and therefore traditionally mobile diesel ground power units have been in play instead.

However, looking at the total amount of ground support equipment around an aircraft, as much as 42% of the CO<sub>2</sub> footprint during a turnaround co-

mes from diesel driven ground power units.

This makes it very interesting to replace diesel with battery powered ground power. In fact replacing just one diesel GPU with one eGPU, means savings corresponding to emissions in the range of approx. 88,000 kgs / 190,000 lbs of CO<sub>2</sub> or CO<sub>2</sub> from 80 households, or 50 cars or 100 acres of forest.

ITW GSE is a leading supplier of GPUs and PCAs to the aviation industry and can look back at over 100 years' experience in this field.

### BATTERY POWERED GROUND POWER SUPPLY UNITS – FUEL EFFICIENT AND CLEAN

Jacob Frank has been head of strategic purchasing at ITW GSE for more than four years and is delighted that the company has been the first to launch an alternative to the traditional diesel motor driven ground supply units. "ITW GSE is leading the field and setting clear new standards by offering airports a very environmentally friendly solution of exceptionally high quality and with many other advantages such as lower running and maintenance costs and a very quiet and emission free unit" comments Frank.

Frank believes that "the ITW GSE 7400 eGPU provides the ideal solution for airports which want to reduce its CO<sub>2</sub> emissions whilst at the same time improving the working environment for ground staff." The battery powered solution emits no CO<sub>2</sub> or NO<sub>x</sub>. At the same time, it is very flexible, as it is autonomous and can easily be transported to wherever it is needed. It can do 5-6 turn-arounds in case of a narrow-body aircraft before it needs recharging (example: A321 for 60 minutes in average per turnaround). And it can be recharged from any nearby 50/60Hz socket.



EvoSIGNAL: There are three size categories (MINI, MIDI and MAXI) to choose from in combination with optical/acoustic signalling options and ingenious mounting adapters.

Since its introduction, the demand for the 7400 eGPU has increased steadily and ITW GSE can now produce approx. 400 units per annum along with thousands of solid state GPUs and PCA's.

### **SAFETY AT A PREMIUM WITH OPTICAL AND AUDIBLE WARNINGS**

ITW GSE developed the ground power unit in conjunction with Amsterdam Airport Schiphol. Discussions took place with ground and maintenance staff resulting in a product which has been warmly received by all. "You just plug it in" say the happy users who are also happy with lower emissions and less noise from the 7400 eGPU on the ramp.

When developing the unit, not only the environmental considerations were important, but also safety. In order to ensure the safety of the users two optical and one audible signal device are installed on the roof of the unit, visible for all operators on the ramp as well as for the pilot in the cockpit. Jacob Frank explains "if there is a problem with the power cables to the aircraft the audible signal device goes off.

The optical signals can be used to show for example charging or discharging, vehicle movement or low battery levels, and these options are selected by the operator."

### **EVOSIGNAL – FLEXIBLE, CLEVER AND LONG-LASTING**

"We were looking for a very bright, long life but flexible beacon light and discovered WERMA's EvoSIGNAL" says Frank "and we were especially impressed by the enormous flexibility of the product: the customer can choose the colour of the beacon preferred as well as which functions the lights should signify."

Thanks to the TwinLIGHT function the customer can himself select either a permanent or blinking LED light picture. Colours available are red, green, amber, blue and clear and the very latest in LED technology en-



The environmentally friendly 7400 eGPU sets new standards. Low operating costs, maintenance free on the one hand and a very quiet and emission free unit on the other.

sures maintenance-free operation and long life.

ITW GSE uses the 110dB multitone audible element from the EvoSIGNAL family. The audible element goes off as soon as the voltage surge in the cable becomes too high which can happen if, for example, the unit moves away from the aircraft.

### **"WERMA FOR US ANYTIME!"**

Flemming P Jørgensen, sales representative with WERMA's Danish partner, Robotech and is in continuous contact with ITW GSE. He summarises the features and benefits of the beacon family as follows: With EvoSIGNAL our customers enjoy the benefits of a "best in class" product philosophy which offers intuitive assembly and installation, a robust design, international approvals, extremely good visibility from any angle and quite simply a solution without compromises."

Jacob Frank is very pleased with the co-operation with WERMA; "it is just great how simple yet professional working with the company and its partner Robotech has been.

The products really are unbeatable." He smiles when responding to the question why WERMA? "Well, WERMA is, after all, a world-wide leader in signal technology.



Jacob Frank has been head of strategic purchasing at ITW GSE for more than four years



## **Evo**SIGNAL

the quick and easy way to create the perfect signalling system