

# AGV INCREASES THE PRODUCTIVITY OF THE ASSEMBLY LINE AT A GEAR MOTOR PLANT



**SEW  
EURODRIVE**

**FIRM/PRODUCT**

SEW-EURODRIVE Poland/Gear Motors

**SECTOR**

Industry, OEM

**SOLUTION APPLIED**

Automated Guided Vehicle (AGV)

SEW-EURODRIVE is the world's largest manufacturer of drive technology, operating in 51 countries. The Polish branch of the company was established 20 years ago – in 1996. Its registered office and assembly plant is located in Łódź. SEW-EURODRIVE Polska employs over 100 people. It manufactures nearly 2,000 gear motors and more than 270 inverters per month.

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## OUR SOLUTION – YOUR BENEFITS

### SOLUTION APPLIED

**In close co-operation with the customer – SEW-EURODRIVE Polska – Europa Systems launched a line of transporters at the customer’s plant in Łódź, including an automated guided vehicle (AGV) based on the latest power supply technology using supercapacitors and MOVITRANS® induction loop.**

The AGV is used for transporting gear motors between assembly stands and other parts of the production line. This method of transportation between stands allows the free movement of employees and trucks located within the production area. The truck complements a section of the transport route without blocking passageways; its purpose is to move goods inside the production shop.

### MANUFACTURER’S CHALLENGES AND EXPECTATIONS

**Rapid changes in the market meant that the company had to seek new solutions in its production and logistics processes which would have affected its productivity and flexibility and would reduce the costs of future investments. Previously, every change of transporter at SEW-EURODRIVE Polska required infrastructure modifications, the provision of additional power supply, control cables or line reconstruction if, for example, one of the work centres had to be moved.**

It became necessary to combine passageways and transport routes in the production shop in order not to close certain areas, as is the case with the existing solutions, i.e. overhead rails or transporter lines, while ensuring the free movement of goods.

The customer had clear expectations regarding the AGV and the truck had to meet certain pre-defined assumptions. The first priority was to design a maintenance-free AGV and its charging system. The customer did not want the truck to be permanently driven by energy from the batteries because extended power feed time entails a proportionately long charging period and other problems such as maintenance, considerable weight of batteries, their end-of-life utilisation.



# BENEFITS

Thanks to characteristics such as: full remote control of work status, management of the AGV while either working or stationary, monitoring the battery charging level, truck work mode (en route or collecting or unloading the transported load); the AGV truck met the maintenance-free condition thus allowing time and operating costs savings. At the same time the technology used makes it possible to extend or install new transport routes.



**End-of-line material flow reduced by 50%.** Maintenance-free transport means that during any changes in the production shop remain open and work continuity is preserved. Changing the route of the truck only requires simple reprogramming and marking the route on the floor and designating new orientation points along the route.



**Time saving of 20%.** Shorter truck charging time and a reduction of maintenance costs thanks to the new power supply technology using supercapacitors and the possibility of contactless (inductive) self-charging while driving or at the terminal stations.



**Remote monitoring.** Thanks to the communication capabilities of the MoviPLC controllers installed in the truck and in the external overriding control system, the work status of the truck is monitored through the WLAN network.



**Total safety.** The truck is ideal for places where people work. The **SAFETY** technology applied in the AGV truck manufactured by Europa Systems and the adjustment of the truck's speed to the braking distance ensure it is **completely safe to use in an environment containing people.**

All these benefits enable SEW-EURODRIVE Polska to optimise their manufacturing processes and adapt to the requirements of the fast changing market.





**HOW IT WORKS.** Scan the code and Watch the movie [www.europasystems.pl/agv](http://www.europasystems.pl/agv)



**Stanisław Nawracaj**  
Europa Systems, Director of Sales



SEW-EURODRIVE Polska sought a manufacturer capable of delivering an AGV truck meeting certain pre-defined parameters and assumptions. Europa Systems – our long-standing and trusted technological partner, proved to be such a manufacturer.



If you **want to learn more** about the AGV truck and intralogistic automation – talk to our Europa Systems sales engineer. Call **+48 91 433 29 62** or write to **[sales@europasystems.com](mailto:sales@europasystems.com)**

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