



Press Release

## More power. More speed. More efficiency.

With its new ARC5 transport robot Servus presents a new benchmark for energy efficiency in intralogistics.

*Dornbirn, September 19, 2023*

*As a full integrator, Servus Intralogistics develops and provides turnkey, automated intralogistics systems for a wide range of industries worldwide. The Servus system creates a seamless connection between warehouse, production and assembly and allows them to merge into a single process. The Servus ARCs, which serve as the core of a modular intralogistics system are intelligent and autonomous transport robots. Servus having developed a 5th generation of transport robots, now presents the new ARC5. With the ARC5, the Austrian company sets a new benchmark for energy efficiency and another milestone for the future of intralogistics.*



ARC5 transport robot - © Servus Intralogistics

# The world's most energy-efficient transport robot

Using the ARC5 means protecting the environment and saving valuable resources. The low energy consumption of less than 150 W during operation and the empty weight/payload ratio of almost 1:1 make the ARC5 the world's most energy-efficient transport robot.

## Around the world for 80 euros

At a speed of 4 m/s, the ARC5 can cover a distance of 345.6 km every day. In doing so, it consumes only 3.6 kWh of energy.

Covering a 40,000 km distance therefore costs only 75 euros. This shows how economical and efficient the ARC5 is and sets a new standards in terms of efficiency.



The energy-efficient ARC5 transport robot - © Servus Intralogistics

## Highly efficient charging through unique energy management

Thanks to the highly efficient charging concept, there is no downtime for charging. The ARC5 charges at every stop on the way. This unique energy management system combines the advantages of two technologies. A super capacitor is charged in a very short time with a high charging current. This super capacitor provides the ARC5 with the necessary energy for its current transport assignment and simultaneously charges a built-in lithium-ion battery.

The ARC5 uses the full potential of both these charging strategies: the high charging currents and outstanding cycle stability of the super capacitor and the high energy density of the lithium-ion battery. In addition, braking energy is fed back into the system to increase efficiency.



## Intuitive operation and easy configuration

Servus' new software solution is just as tailor-made as the its mechanical system. Local implementation ensures fast order processing and maximum security. Thanks to seamless integration with a customer's WMS or ERP, the software enables smooth connection to all third-party systems. From storage locations and tote management to the precise generation of efficient transport orders, it controls all of the system components. Intelligent algorithms and optimized warehouse strategies enables the software to minimize empty runs and thus maximize efficiency.

All processes and the overall system status are logged in real time and clearly structured in apps. This allows operators and system supervisors to view this information directly at their workstations or on mobile devices creating maximum transparency, efficiency and process reliability.

## Optimization of maintenance strategies

With real-time data and state-of-the-art machine data collection, the system provides basic data such as speed and battery status as well as diagnostic data from sensors and encoders at any time, even in stand-by mode. Useful information about the status of storage locations or defective RFID nodes and charging stations is also provided. Allowing the system to continuously run without any interruptions.

Thanks to the continuous recording of distances and charging cycles, maintenance work can be scheduled ahead. Allowing the system to continuously run without any interruptions. This gives the customer full control over maintenance intervals, helps avoid downtime through predictive maintenance and thus increases productivity. As a result, maintenance strategies can be customized and optimized to increase

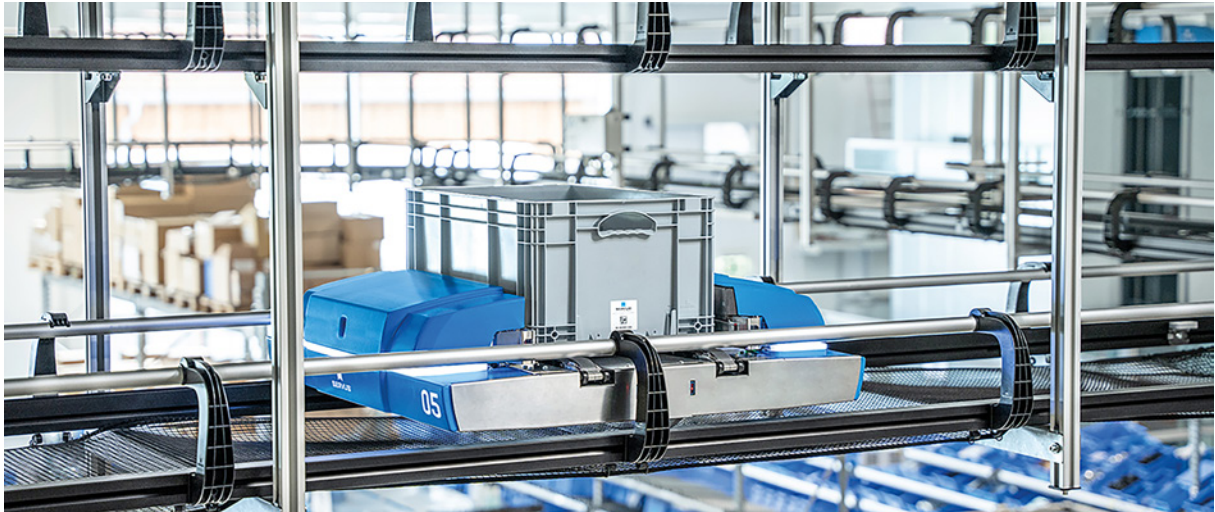


ARC5 in the production - © Servus Intralogistics

## More efficiency throughout the entire value chain

In addition to creating more power, higher speed, minimal energy consumption and impressive dynamics, the focus in development was on an even more efficient, versatile and convenient use robot.

One example of this is the ARC5' modular, maintenance friendly design. . There are very few wear parts in the new transport robot from Servus, which makes it especially low-maintenance. Another advantage of the modular design is the ability to quickly replace key components. Including power pack, charging unit contacts, drive wheels and guide rollers. This is crucial to minimize downtime and gain valuable up time.



Overhead routing - © Servus Intralogistics

## Making sure that every transport unit reaches its target safely

The ARC5 has an intelligent side guide system that adapts to the loaded transport unit even during transport. This prevents payload slippage and ensures precise and gentle transport. Different tote widths can be used in a system without risk of any tilting or twisting during transport.



automatically adjusting side guide - © Servus Intralogistics

## The new ARC5 at a glance

- The world's most energy-efficient transport robot
- A transport robot for any load up to 50kg (totes, cartons, trays, workpieces, SMT magazines)
- Automatically adapts to any type of load
- 20 % faster throughput
- 24/7 operation without downtime
- Low maintenance
- Intuitive plug-and-play system
- ESD and cleanroom compatible

// *We are pleased that with the development of the ARC5 we will be able to support our customers even more in the future to manage efficiently and successfully. Thus, the required investment and a lot of heart and soul has paid off twice.*

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Info on the ARC5