

PRESS RELEASE

High-tech company montratec focuses on energy-saving transport system

Shuttle solutions increase energy efficiency in intralogistics

"Energy efficiency is becoming more and more important in industrial production," says Martin Claussen, Managing Director for Sales and Marketing at the intralogistics company montratec in Niedereschach (Germany). Last year, with 46.7 percent, the industry was the largest electricity consumer nationwide. "This opens up an enormous future market for montratec: with the energy-saving rail and shuttle transport system montrac[®], montratec enables sustainable and economical intralogistics solutions with the highest potential for savings in nearly all industrial sectors, even in clean room production," concludes Claussen.

Many companies have committed themselves to sustainability programs which, among other things, aim to save energy and limit CO₂, and pass these requirements directly on to their suppliers and partners.

Sustainable solution for process automation and intralogistics

One example of the implementation of optimized energy consumption in process automation and intralogistics is the intelligent monorail and transport shuttle system montrac[®]. This sustainable intralogistics solution from montratec has a comparatively very low power consumption and is therefore environmentally friendly and resource-saving. "Thus, the use of montrac[®] in networked material flow management can contribute to energy efficiency, CO₂ savings and cost reduction for the entire company," affirms Claussen. "This positive influence on the return on investment (ROI) can be quantified based on individual model calculations that we create together with our customers."

The flexible modular built-up montratec® transport system consists of an aluminium monorail system and various autonomously operating transport shuttle types that communicate independently with each other and with the route, and are “at the right place in the right time”. The decentralized system control regulates the interaction between transport shuttle, monorail and PLC control and enables not only the integration of montratec® into external process systems, but also the integration of an ERP system connection.

Through the exchange and visualization of all system data in almost real time and the resulting permanent transparency of the montratec® system status, it is possible to react flexibly to changes and to make system adjustments promptly.

Low energy consumption – advantages of minimized power losses

Compared to classic belt transporters, whose motors permanently run, the montratec® transport shuttles only consume electricity while driving. During the transport journey, the average power consumption of a montratec® transport shuttle is only about 27 W, even at a maximum speed of 55 meters per minute.

Since every transport shuttle is equipped with an integrated power supply, no additional power connection is required for the on-board power supply. Thanks to this integrated power supply for external consumers, workpieces can already be checked and processed during the transport journey. “That means that the travel time becomes the production time,” says Claussen. The electrically operated montratec® turnouts have a minimal power consumption of just 8.64 W. As well as the decentralized intelligent control unit, the SmartRouter, which only needs 4.8 W.

The entire montratec® system works with energy-efficient DC current and a voltage of 24 V, which is directly tapped from the monorail. Direct current networks are characterized by a significantly higher degree of efficiency, since there are no conversion losses.

“Another advantage of the montratec® system is the power supply directly at the drive of the transport shuttle. This practically eliminates power losses and reduces the energy consumption of the montratec® system,” explains Claussen.

“With energy-efficient montratec® transport solutions, we are making our contribution to saving energy and reducing CO₂ in intralogistics and process automation,” emphasizes Claussen.

Image line – to photo digital attached:

Thanks to the on-board-power-supply, workpieces can already be tested and processed during transport.

Photo: montratec GmbH



Image line- to photo digital attached:

The continuous power supply for the entire montratec® system is provided via the DC power rail integrated into the monorail.

Photo: montratec GmbH



Company information about montratec GmbH

The high-tech company **montratec GmbH** is clearly focused on its core competencies in the industrial intra-logistics and process automation. With more than 2,500 worldwide installed montratec® systems, montratec offers future-oriented solutions for interlinking industrial production and logistic processes in all industrial areas and in cleanroom production. The montratec GmbH has about 140 employees at the company's headquarters in Niedereschach (Germany). Direct sales are located in Europe, North America, and Asia. International agencies are operated by dealerships. For further information, please follow: <https://www.montratec.de/en/>.