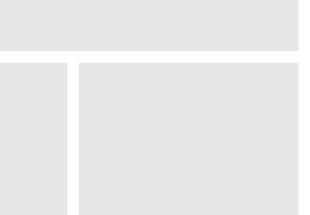




HEALTHCARE SOLUTIONS

TRANSCAR AUTOMATED GUIDED VEHICLE





SWISSLOG IS A LEADING PROVIDER OF INNOVATIVE, INTEGRATED LOGISTICS SOLUTIONS FOR HOSPITALS

Answering tomorrow's hospital logistics challenges, today.

With over 100 years of experience, Swisslog is a leading supplier of logistics automation solutions for healthcare facilities. It has installed automated materials transport and automated drug management systems in over 3 000 hospitals around the world.

Swisslog offers total systems design, research, development, manufacturing, installation and customer support, providing a complete supply chain management approach to the logistics challenges of hospitals.





CUSTOMIZED SOLUTIONS THAT RESOLVE A WIDE RANGE OF LOGISTICS CONCERNS

Swisslog is dedicated to providing healthcare institutions tailor-made solutions to meet the wide range of challenging logistics tasks that modern hospitals face today.





AUTOMATED MATERIAL TRANSPORT SYSTEMS

Swisslog offers automated material transport systems for both on-demand and scheduled transport within the hospital. Our systems are designed for the hospital environment, where hygiene and safety as well as the reliable transportation of highly sensitive goods play an important role.

AUTOMATED DRUG MANAGEMENT SYSTEMS

Swisslog's drug managemet systems offer best-practice automated solutions – from the packaging of almost all forms and shapes of medications, to storage, dispensing, and logistics, as well as inventory management software offering supply chain control from the dock to the patient.





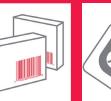
Pneumatic Tube System

Automated Guided Vehicles



Packing and

Order Picking





Automated Unit Dose Dispensing

Storage and Inventor Management

CHALLENGES IN HEALTHCARE

GREATER EFFECTIVENESS DESPITE A LOWER BUDGET?

The core task of hospitals lies in improving the health of the patients using qualityassured innovative medicine and care.

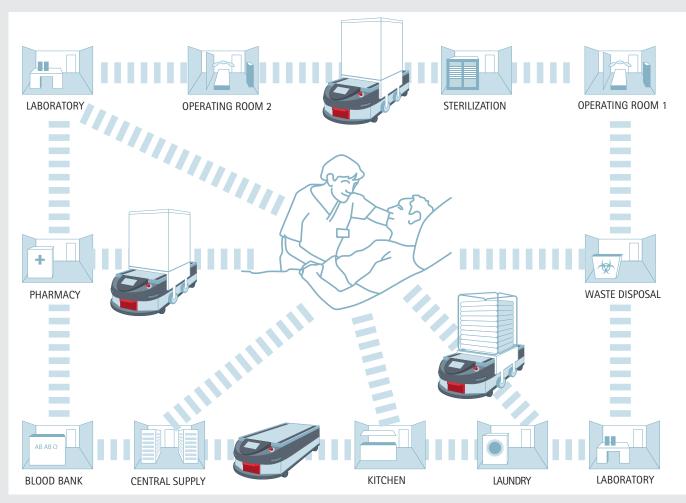
Since the introduction of the DRG system (Diagnosis Related Groups) and the budgeting associated with it, as well as an increasingly competitive situation, hospitals are facing greater and greater challenges: Shortening the length of a patient's stay without this resulting in a loss in the care quality, reducing personnel costs as well as increasing efficiency and ultimately improving the overall result. For these reasons, optimizing hospital logistics is becoming increasingly important. The prudent implementation of work resources in order to increase efficiency is consequently one of the most important topics. A future-oriented solution approach: The TransCar generation 3, a next-generation automated guided vehicle (AGV) that transports heavy, bulky goods independently, reliably and expeditiously. Specially designed for hospitals, this automated system enables you to save manpower, which you can utilize more profitably elsewhere.

Using practical representations and technical details, we show you which innovative characteristics make the TransCar generation 3 so unique and how it can be easily integrated into existing buildings to support you in your work without this entailing extensive, complicated reconstruction work. Impressively effective, the TransCar generation 3 also almost inconspicuously becomes an irreplaceable everyday component in your institution, allowing you to be able to concentrate on what is important: Practicing medicine within a healthy cost structure.



PROCESS OPTIMIZATION WITH SYSTEMS INTEGRATION

TransCar is not a stand-alone solution, but instead is in constant communication with numerous other vital hospital systems, such as HIS (Hospital Information System), BMS (Building Management System) and ERP system.



IN-HOUSE LOGISTICS WITH SYSTEM

Transports within a hospital must do two different things at once: Function reliably and cost-effectively such that the time gained benefits the patient and the money saved benefits your institution. And since many of the tasks within your institution are repetitive or similar, large potential for savings can be found by avoiding empty runs, for example, and by increasing transport capacity.



SAVE TIME IN OPERATION 24 HOURS A DAY

The TransCar generation 3 can be integrated discretely and reliably in your daily routine, so that you have more time for what is important: your patients. The core of the TransCar system is the TransCar Manager. It constantly optimizes the transportation and task management.



On the way to its destination, the system automatically selects an appropriate elevator and activates it through wireless communication. Doors along the route are automatically opened.



The transfer of a food container is carried out in the dispatch station in the kitchen.

02→

05→



After the container has been delivered to the inpatient ward, food is distributed by the ward personnel.

 $03 \rightarrow$

06→

01→



On the way back from the inpatient ward, an empty container is standing by ready to be taken away, thereby optimally utilizing the full capacity of the system.



After delivering and emptying the container, it can be brought to a washing system, if necessary.



The vehicle is now available for its next transportation task, or it can be parked in the charging station in order to recharge the batteries.

SAVE MONEY AN ALL-ROUNDER – SMALL AND FLEXIBLE

The TransCar generation 3 is an important component in the function chain of your daily operations because – once it has been programmed in accordance with your requirements – it operates independently, reliably and inconspicuously.

It independently loads containers up to a total weight of 600 kg with the goods defined by you and brings them to the desired destination fully automatically at speeds up to 1.8 meters per second along freely programmable routes over hallways and elevators.

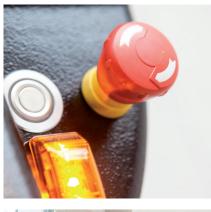
For you this means: 100% control over your transport flow and high efficiency at a low cost of investment. Whether transporting laundry, disposing waste, delivering food to the wards or sterile goods to the operating room – the TransCar generation 3 impresses with:

- reliable, innovative and proven technology
- personalized, flexible programming and route planning
- minimal space requirements
- easy integration into existing building structures without construction work
- a high degree of safety

SAVE LIVES CAREFULLY THOUGHT-OUT SAFETY PACKAGE

When it comes to technology, man is always at the center – whether as a patient, hospital personnel or visitor. That is why the TransCar has a modern space-saving laser technology that takes care of two tasks at the same time: navigation and safety. Obstacles are recognized early on by the laser, the driving speed is then reduced or, if necessary, the TransCar stops immediately. Once the obstacle has left the safety area, the vehicle resumes its journey independently.

This technology provides safe operation in all areas, even in areas where man and machine encounter each other.





THE BENEFITS AT A GLANCE

Effective Space Saving:

- Improved maneuverability in confined spaces thanks to a tricycle drive system and a maximized navigation field up to 270°
- Lift deck vehicle equipped with photocell sensors for a precise detection of the parked containers
- Flexible laser navigation in existing building structures and therefore no need for major construction work

Innovative Safety Features:

- Alerts through acoustic and visual signals
- Two emergengy buttons for immediate stopping and shutoff
- Additional obstacle detection (ultrasonic and floor detection sensors) for expanded recognition of hindrances, either above or underneath the height of the vehicle
- Lateral sensing bumpers ensure that the vehicle stops immediately if it comes into contact with an obstacle

Professional Hygiene Standards:

 Cleaning/Disinfection from all sides (conformity with IP54)

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