



UNIVAN AGV

AUTOMATED GUIDED VEHICLE
FOR HOSPITALS



EXPERT FOR HOSPITAL INTELLIGENT LOGISTICS TRANSPORT SYSTEM

WITH THE DEVELOPMENT of modern hospitals, the hospital scale is getting bigger and bigger, the division of work between departments gets more specialized, and the hospital visitor flow rate increases significantly. The demand on internal transport logistic systems within hospitals is growing. It is getting increasingly more challenging to meet the requirements of efficient medical supplies transportation within modern hospitals by traditional manual transport.

AS A SPECIALIST in the area of intra logistics for hospitals, Telelift GmbH provides automated transport solutions according to various indoor environments and user requirements. Among them, due to the advantage of automated guided vehicles, high payload and high transport reliability, UniVan can effectively solve the demand for large item transportation in hospitals. Meals, linen, waste or other bulky items are typical transport requirements for UniVan.

UNIVAN AGV

- Highest payload up to 650 kg
- Automated transport
- 24/7 available for service
- Transport route and procedure free programmable
- Safe and stable
- High efficiency and reliability
- Can be implemented in existing buildings
- Easy to install
- Avoid damage to inventory caused by manual transport



TELELIFT – YOUR RELIABLE PARTNER

OVER 50 YEARS of experience in intelligent intra logistic solutions

INSTALLED BASE world-wide in over 40 countries

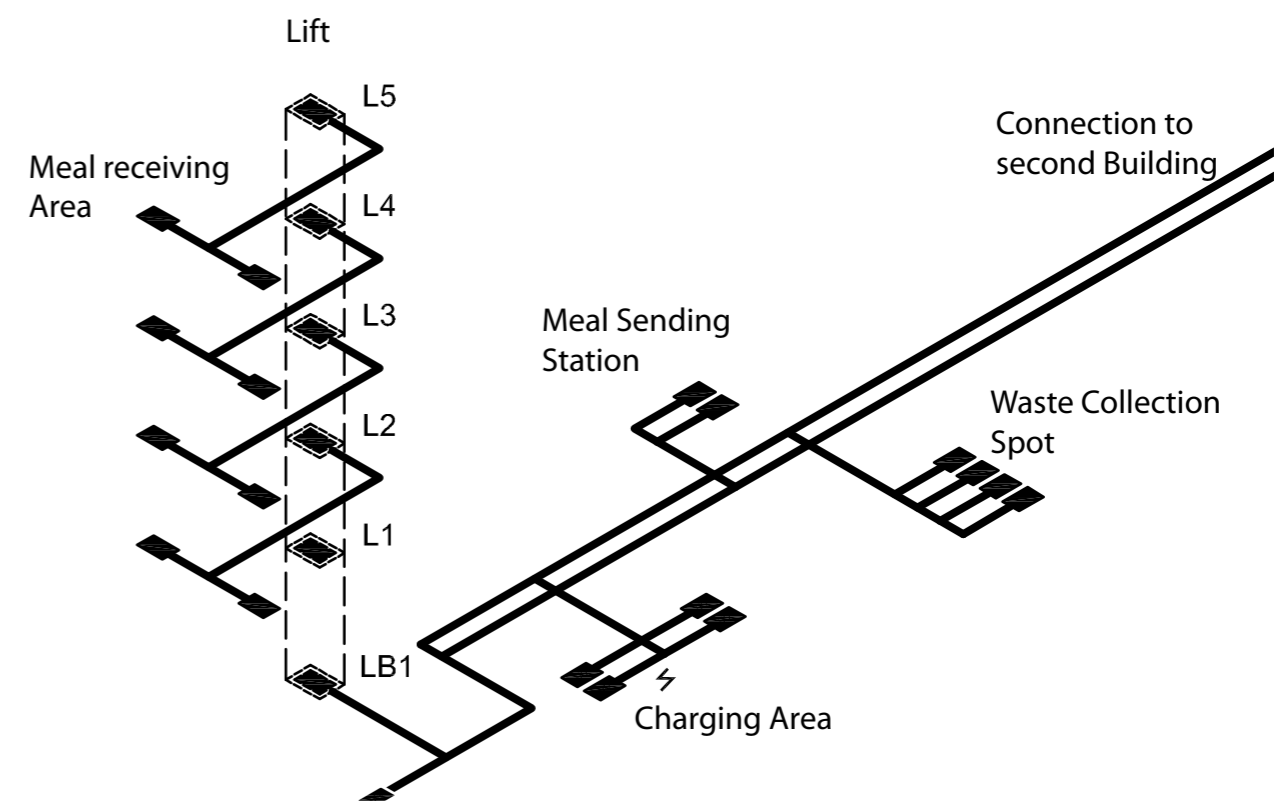
LEADING product design

MADE IN GERMANY quality and reliability

ULTRALONG service life

ONE-STOP SERVICE for design, installation and after-sales service

UNIVAN AGV SOLUTION





WE CONNECT CLINICS AND DEPARTMENTS

UNIVAN AUTOMATED GUIDED VEHICLE transports goods inside hospital buildings by using advanced navigation technology. Once UniVan receives a transport task, it will automatically navigate to the destination according to the route and building infrastructure. While in motion, the vehicle constantly scans the surrounding environment to plan the path and avoid collision. When encountering obstacles, judging by the distance, the vehicle will slow down or stop with signals. If transport to another level is required, the control system manages the automatic operation of the elevator and the automatic entry and exit of the vehicle. A control panel on both sides of the vehicle guarantees easy accessibility for the user.

UNIVAN AGV TYPICAL TRANSPORT PROCESS:

1. The UniVan waits at a specific station for transport. After receiving the task order from the control system, the UniVan starts from the charging station to the sending station and transports the container
2. After picking up the container, the UniVan automatically requests the elevator to reach the floor of the destination.
3. When the UniVan arrives at the assigned station, the container with goods will be released and staff can distribute the contents.
4. UniVan can immediately take the next transport task or goes back to a charging station.



- AUTOMATED** logistic solution
- FREE NAVIGATION** on programmable transport routes
- SECURE** detection of objects when driving
- SMART** building integration
- EASY** user access

SAFETY track navigation combined with accurate path determination. Interacting with hospital staff and obstacles in the hospital environment like corridors, elevators etc. needs a »state-of-the-art« safety package. 360 degree contactless stopping around the vehicle, dynamic calculated protection fields depending on the speed, emergency stop buttons and inclination sensor for safe operation on a slope will be standard features.

SYSTEM COMPOSITION

MINIATURE LASER SCANNER, ultrasonic sensors and ground detectors provide a safe navigation. Unique to the vehicle is also the drive concept: It is extremely flat and has a very high power density. For travel of up to 2 meters per second and inclines of up to 7 percent. Since the drive concept is designed as a differential drive, the vehicle can be steered over a speed difference between the two drives – and even rotate if necessary on the spot, remarkably with up to 93 percent of the energy efficiency of the drives. This contributes significantly to the high availability of the vehicles. Use cycles of 20 hours and more are no problem.

AGV

- System map built-in for automatic planning of the transport route
- Emergency stop button
- Obstacle detection device without dead corners
- Dynamic safety zone to slow down or stop in advance
- Two types of vehicles with pulling or lifting function are available
 - highest payload 380 kg
 - highest payload 650 kg

CONTROL SYSTEM

- Vehicle charging management
- Controls external equipment like auto-door, elevator, fire alarm system etc.
- Real-time display of the running status of the entire system
- Analyzing transport data
- Malfunction with real-time alarm

CONSIDERATE ONE-STOP SERVICE

SYSTEM DESIGN

provides an ideal solution based on factors like type of transported goods, total flow and hourly flow of the stations, location and number of the stations, hospital architectural structure, fire protection requirements, design requirements, demand for future expansion and many more.



PROJECT REALIZATION

- RELIABLE** system installation
- STRICT** construction standard
- REASONABLE** construction scheme
- PROFESSIONAL** installation team
- RICH EXPERIENCE** for project management

CONTROL SYSTEM

- Real-time display of the location and task of the vehicles
- Real-time display of the status of each AGV
- Malfunction real-time alarm



Pulling vehicle



Lifting vehicle



STATION: Can be divided into sending station, receiving station, and sending/receiving station to adapt to different department and procedure

CHARGING STATION: After finishing of tasks, the vehicle will go back to a charging station automatically

EXTERNAL EQUIPMENT: Auto-door, elevator, fire-alarm system etc.

SYSTEM MAINTENANCE AND TRAINING

- Regular customer training
- Various maintenance plans
- Technical support
- Timely spare parts supply
- Lifetime cooperation



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