

Keeping materials **moving**



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Let materials flow.  
With stable and efficient  
process chains.

Everything is in motion, on a quest from A to B. And while it is often said that the journey is the destination, sometimes it really is simply a matter of how to transport something from one place to another as efficiently as possible.

Grenzebach is passionately committed to this: we live for logistics, especially intralogistics. Intralogistics is a vital cog in the flow of materials. Smooth-running processes that meet the growing demands for dynamism and variability call for smart, automated, and flexible logistics processes. Automated guided systems (AGS) can be one such cog within a functioning process chain. These intelligent systems link together goods received, the production hall, the warehouse, and the dispatch center – quickly, reliably, and safely.

We have experts from many disciplines who have dedicated themselves to intelligent intralogistics and are always thinking ahead. Not just today, but also tomorrow and the day after that. They study every detail and develop strategies and technologies to make the world of intralogistics better, faster and more efficient – and in doing so, they are continually making spectacular advances. With enthusiasm and a vision for the future, we work with you to create an intelligent, automated solution that underpins the most efficient warehouse and production logistics possible for your company.

**With this in mind: never stop moving forward!**



# Grenzebach – delivering the full package

## For future-proof intralogistics



**Grenzebach keeps your company moving forward – in every sense – by automating your systems and processes and thinking one step ahead. As specialists in automation, we have been supplying intralogistics solutions for more than a decade, ensuring an efficient flow of materials and communication in factories and logistics centers. This allows your company to grow and to stay competitive in an ever-changing technical and social environment.**

Smooth-running intralogistics is absolutely paramount for companies in the retail and production sectors that want a competitive edge. The key to this lies in automation.

We firmly believe that automating logistics processes with the use of automated guided systems creates the best balance between flexibility and efficiency in many scenarios. Autonomous, self-driving transport vehicles – known as automated guided vehicles (AGVs) – are replacing traditional conveyor technology and are transporting goods quickly and reliably to the required locations. Central to this is a universal master control system that takes control of the logistics processes and coordinates all vehicle movements.

Our solutions take a holistic approach, incorporating hardware, software, and service. Whether you make use of the complete package or just individual components from Grenzebach, we are by your side as a dependable partner throughout the entire product lifecycle, so you can access all services from a single source. You will benefit from our extensive know-how, amassed from a large number of projects in a wide range of industries.

1

### Intralogistics systems

Automated guided vehicles, control software, and management software are combined with the right technologies and peripheral equipment to create an intelligent intralogistics system that keeps materials flowing perfectly within and between goods in, the production hall, the warehouse, and the dispatch center.

### Consultancy

We are your consultant and partner for automated intralogistics processes – from the initial project request, through detailed planning, right up to completion, and beyond. Together with you, our experts devise holistic automation concepts that are tailored to your needs and budget.

2

### Process analysis

As the customer, you have maximum room to maneuver. This means that we focus entirely on your wishes and requirements. Following a detailed analysis that also identifies scope for improvement, you will receive a tailored solution package that includes hardware, software, and service – of a high quality, technologically innovative, and digitally integrated.

### Software solutions

We offer a wide range of intelligent software solutions for intralogistics with the best possible cost-benefit ratio. Our fleet manager coordinates the movements of all automated guided vehicles and, together with the warehouse control system, delivers the best possible transport and maximum warehouse efficiency, while the additional statistics tool allows you to analyze, evaluate, and optimize the entire logistics process in your facility – comprehensively and transparently. With Grenzebach software, you integrate the solution digitally and benefit from the best possible, reliable, and flexible transport.

3

### Automated guided vehicles

Traditional conveyor technology is being expanded or replaced by modern robotics as well as autonomous and highly available automated guided vehicles. Vehicle technologies such as Autonomous Load Carrier Detection, 360° personal safety, and Drive Range Monitoring enable flexible, safe, and reliable transport.

### Peripheral equipment

Grenzebach also offers you the appropriate charging technology, transfer stations, and load carriers – either as standard modules or specially adapted to your needs. We also provide connections to robot cells, elevators, and area protection.

### Service 24/7

We are there for you – anytime and anywhere. As your partner for intralogistics solutions, we provide you with excellent, reliable service throughout the entire lifecycle of your system. We make sure that the technology you have invested in stands the test of time.



# Intelligent intralogistics

## Making optimum use of automation



**Flexibility and scalability**

**Less physical effort**

**Process optimization and production efficiency**

**Transparency and inventory overview**

**24/7 operation of the systems**

**Optimal route finding**

Almost all players in industry and e-commerce are recording increases in turnover and orders. Smooth intralogistics is the linchpin for companies in retail and production that want to remain competitive. Automation allows logistics processes to be accelerated, made more flexible, and adapted to today's increased requirements. Intelligent, automated logistics systems are fundamental to maximum productivity.

**There are a number of good reasons for automating intralogistics processes:**

- » Safe and clear processes with high reliability – companies always have an overview of the entire flow of goods
- » High availability and flexibility – automated systems can easily be scaled at peak times, goods carriers can be adapted to changing requirements
- » Process optimization and production efficiency – automation enables processes to be accelerated, while also reducing the use of resources for improved efficiency
- » Better and healthier working environment – ergonomic processes reduce pressures on employees and, consequently, staff turnover decreases too

## APPLICATION EXAMPLES IN INDUSTRY

### AUTOMATION AND PLANT ENGINEERING FOR THE AUTOMOTIVE INDUSTRY

**Automotive – supermarket**

- » Shorter cycle times and high reliability, especially for just-in-time/just-in-sequence production processes
- » Easy and space-saving integration into existing environments
- » Fast and flexible response for critical processes
- » Experienced partner to the automotive industry

### INTERLINKING PROCESSES

**Machine to machine – plant engineering specialist**

- » Processing steps are linked to create an overall concept
- » More flexible and space-saving than position-based transport solutions
- » Individual adaptation to customers' specific challenges
- » Fast response time to changes in the production infrastructure

### AUTOMATED GOODS TRANSPORT

**Internal transport A → B**

- » Increased efficiency for production and manufacturing
- » Reliable and flexible in any manufacturing operation and can be integrated with customized levels of automation
- » Lower planning and process risks
- » Intelligent linking of goods in, production hall, warehouse and dispatch center

### GOODS-TO-PERSON PICKING

**GtP (Goods-to-Person) – returns handling – multi-client – GtP warehouse for 3PL**

- » Simple installation in existing buildings
- » Flexible system can be configured and expanded as required
- » Fast response times to demand increases and peak times
- » Highly flexible goods carriers and storage of products

# A logistics system that thinks for itself

## With high-performance software



Imagine you have an intelligent control center for your entire intralogistics in your production hall or warehouse, which is perfectly adapted to your logistics process. From transport orders and vehicle selection right through to vehicle energy management – everything is fully clear and integrated, largely automated, and, above all, independent of the vehicle manufacturers.

Organizing complex processes intelligently is one of Grenzebach's major strengths. Grenzebach has developed the fleet manager as the central software for controlling all automated guided vehicles. The fleet manager uses VDA 5050 – a standardized communication interface – to control all autonomous and automated vehicles, regardless of manufacturer and type.

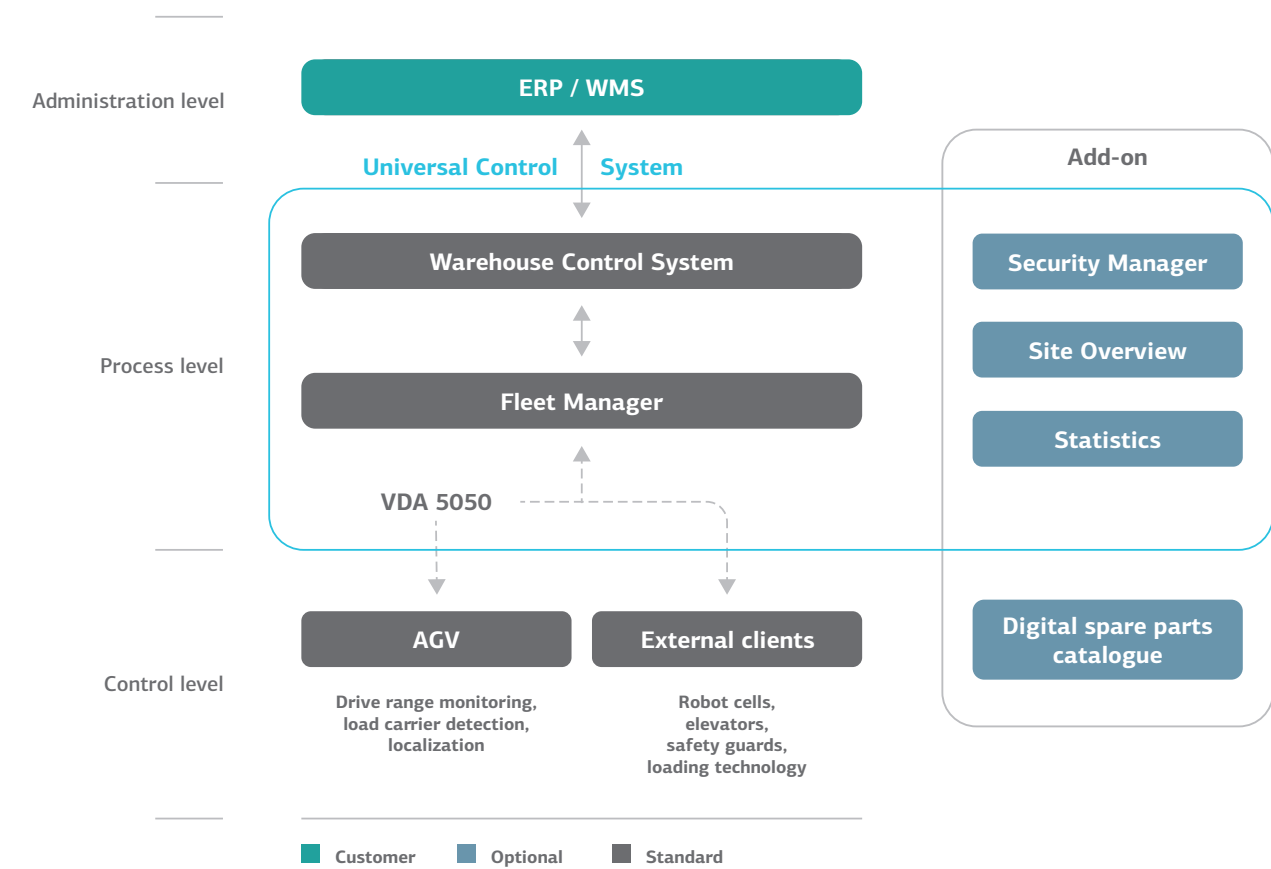
As the heart of the software ecosystem, the universal master control system consistently links all levels and modules of the comprehensive portfolio of software solutions for various requirements and sub-areas in your logistics process.

Interfaces to ERP, WMS, WCS, and other logistics control systems, as well as to various machines and systems, are part of the standard portfolio.

**Each manufacturer of automated guided vehicles provides its own software. This makes it difficult to operate different vehicle types from different manufacturers in a single system. The vehicles often use exclusive areas and routes, which increases the space requirement enormously. Integrating different software is time-consuming and costly. These challenges can be overcome by a universal master control system based on VDA 5050, as offered by Grenzebach.**

Philipp Marb  
Head of R&D and Product Management at Grenzebach

## THE GRENZEBACH SOFTWARE ECOSYSTEM



### Warehouse control system (WCS)

Takes over warehouse management tasks and the control of logistics processes in automated goods transport and goods-to-person picking. It is the interface between the customer system and Grenzebach's fleet manager.

### Fleet manager

As an overarching level of coordination, it is responsible for all vehicle movements on the basis of transport orders – even for large, complex fleets, completely independent of vehicle type and manufacturer – and thereby enables optimum transport, maximum warehouse efficiency, and the most effective energy management.

### Statistics

Collects, monitors, and analyzes all vehicle and system data from your intralogistics system. Due to the consolidated data management and the web-based interface, you have all the key information at a glance and can react quickly to changes. The statistical evaluation allows errors and deviations to be identified and optimized more quickly.

### Digital spare parts catalog

All components of the system, including vehicles, goods carriers, charging technology, etc. can be found here. You can use the parts list structure or the 3D model to select individual parts and then reorder them.

### Site overview

Provides a general and simple introduction to Grenzebach applications. The company overview gives you access to all your locations and systems. The interface can be customized.





# Automation that connects

## Flexible in-plant transport of goods



### SYSTEM COMPONENTS FOR AUTOMATED GOODS TRANSPORT



#### Software

Grenzebach's fleet manager coordinates all vehicle movements. Together with the high-performance warehouse control system, including warehouse management and transport management, it enables optimum transport of goods.



#### Automated guided vehicles

The AGVs from Grenzebach intelligently link all work stations – from goods in to production, storage, and dispatch. Standard load carriers (tables, trolleys, racks, shelves) can be transported to any location.



#### Goods carriers

Trolleys and tables are some of the standard models. In addition to these, there are goods carriers made specifically for you. Your suppliers' goods carriers can also be adapted for compatibility with Grenzebach vehicles.



#### Peripheral equipment

The full solution includes, for example, the relevant charging technology and transfer stations, as well as the connection to fire doors or elevators.

Production environments are becoming more and more complex. At the same time, the demand for flexible response options and greater efficiency is rising. Our automation solutions help you to develop your production into a "smart factory".

Automated goods transport brings with it enormous potential for increasing efficiency compared with manual processes. With Grenzebach, you can harness this full potential by introducing technical intelligence to your processes.

#### AN INTELLIGENT FLEET

Our intelligent solution for automated goods transport connects all processes along the value chain. This is achieved by expanding and replacing conventional conveyor technology and industrial trucks with modern robotics alongside autonomous and highly available automated guided vehicles. The AGVs from Grenzebach drive under almost all the most standard types of goods carrier – e.g. in the form of tables, trolleys, racks, shelves – then lift them up and transport them to any destination specified. They are the perfect solution for any type of production or manufacturing, regardless of industry, product or company size.

#### Benefits to you:

- » More efficient material flow for shorter cycle times, just-in-time/just-in-sequence delivery
- » Faster response times for critical processes
- » Simple, space-saving integration into existing environments such as elevators, robot cells, conveyor systems, packaging machines, and strapping systems
- » High scalability so that the system grows with your company and your requirements



# Automation that saves time

## Optimized goods-to-person picking



**Work should be productive. That goes for logistics, too. Machine intelligence from Grenzebach makes a key contribution to productivity in order picking.**

Online retail is booming. The number of orders and returns is increasing. Parallel to this, customers expect the shortest possible delivery times. This situation poses major challenges when it comes to the picking of goods. Today, most of the tasks in this field are still completed by humans. This sees workers pushing items on trolleys through the warehouse to pick the products. This travel time is unproductive working time. Companies that work this way are slower, less efficient, and less competitive. And the bottom line is that this means they're less profitable too. Reason enough to look to do things differently.

### FULLY AUTOMATED GOODS-TO-PERSON TRANSPORT

What if you could use intelligent technologies to network goods in, warehousing, and dispatch by automating the entire material flow? This is exactly what our goods-to-person solution makes possible. Automated guided vehicles transport the goods carriers autonomously and precisely to their destination within a secured area. The carriers are picked up and transported to a pick station. From there, workers outside the storage area can take the required goods. The entire process is supported by software that controls the transport vehicles and enables maximum workflow efficiency.

### SYSTEM COMPONENTS FOR GOODS-TO-PERSON PICKING



#### Software

With Grenzebach's software solutions, the systems are continuously optimized. The warehouse control system regulates the material flow, displays the warehouse layout and generates the transport orders. The fleet manager coordinates the vehicle movements, finding the best possible route.



#### Automated guided vehicles

The AGVs transport mobile goods carriers for order picking to a multifunctional workstation within areas closed to pedestrian traffic. A maximum lifting weight of between 600 kg and 1,200 kg leaves plenty of scope when loading the goods carriers.



#### Goods carriers

The warehousing of items is highly flexible due to the use of configurable racks, tables, frames, mobile goods carriers, and customer-specific solutions.



#### Peripheral equipment

The overall solution includes ergonomic pick stations with pick-gate and put-wall using pick-by-light and put-to-light systems as well as a suitable safety concept with hardware.

#### Benefits to you:

- » Optimized warehouse operations and order picking as well as safer, more reliable processes
- » Space-saving storage for maximum warehouse efficiency
- » Reliable service 365 days a year, 24/7
- » Fast, intuitive processing and shorter delivery times
- » High scalability, as the system grows flexibly with your company and can cope with peaks in demand
- » High flexibility with regard to different order sizes and warehouse units
- » Productivity increased and error rates minimized
- » Safe and ergonomic working environment
- » Simplified processes for pick orders, replenishment processing and returns processing, inventories and maintenance work





# Get your intralogistics moving

## Automated guided vehicles from Grenzebach



To keep your intralogistics in motion, we offer you the optimum autonomous vehicle for every process requirement.

See for yourself and discover our wide range of products!



### Why choose automated guided vehicles from Grenzebach?

Automated guided vehicles from Grenzebach are true all-rounders. Whether your goods carriers are light or heavy, large or small, whether your working areas are open or closed to pedestrian traffic – we have the right vehicle for your requirements.

We are committed to delivering the very best industrial quality. We consider the safety of our AGVs right from the very start – special features facilitate the best possible personal safety, collision protection, and maximum fire protection, among other benefits. We view topics such as sustainability and digitalization as an opportunity to further improve logistics processes – for you and your customers.

## THE GRENZEBACH AGV PORTFOLIO

### L600 & L1200



The L600 and L1200 automated guided vehicles are primarily used in cordoned-off areas that are closed to pedestrian traffic, and are designed to transport mobile goods carriers with a lifting weight of between 600 kg and 1,200 kg to multifunctional workstations.

- Dimensions:** 967 x 750 x 340 mm
- Lifting height:** approx. 60 mm (electric)
- Load capacity:** 600 or 1,200 kg
- Speed:** up to 1.5 m/s
- Safety:** in cordoned-off areas closed to pedestrian traffic with wireless emergency stop function
- Navigation:** Grid-based (optical recognition of marking signals with Data Matrix codes)

### L1200S



The L1200S can transport a variety of different load carriers up to 1,200 kg longitudinally or transversely and the integrated personal safety sensor system makes it suitable for use in all indoor environments.

- Dimensions:** 1,263 x 695 x 330 mm
- Lifting height:** approx. 60 mm (electric)
- Load capacity:** 1,200 kg
- Speed:** up to 2 m/s
- Positioning accuracy:** approx. ± 15 mm (typical)
- Safety:** 2 certified safety laser scanners
- Navigation:** Contour-based navigation

#### Options

Autonomous Load Carrier Detection, Drive Range Monitoring, blue light, brush strip

#### Optional setup

Forklift setup

### FF1200S



The FF1200S transports pallets with a load capacity of up to 1,200 kg. Its modular design allows it to be used for a variety of applications (floor-to-floor, floor-to-conveyor, etc.).

### OL1200S



The OL1200S moves omnidirectionally, is fitted with intelligent sensors and can transport large components in the smallest of spaces in indoor environments.

- Dimensions:** 1,450 x 760 x 330 mm
- Lifting height:** approx. 140 mm (electric)
- Load capacity:** 1,200 to 1,500 kg
- Speed:** up to 1.66 m/s
- Positioning accuracy:** approx. ± 15 mm (typical)
- Safety:** 2 certified safety laser scanners
- Navigation:** Contour-based navigation

#### Options

Autonomous Load Carrier Detection, Drive Range Monitoring, blue light, brush strip

- Dimensions:** 1,725 x 800 x 1,950 mm
- Lifting height:** approx. 1,200 mm
- Load capacity:** up to 1,200 kg
- Speed:** up to 2.0 m/s
- Positioning accuracy:** approx. ± 15 mm
- Safety:** 2 certified safety laser scanners
- Navigation:** Contour-based navigation

#### Options

Autonomous Load Carrier Detection, Drive Range Monitoring, blue spot

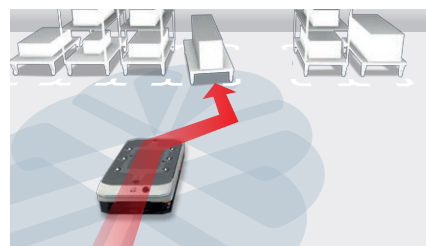


# Always one step ahead

## For more intelligence in automated goods transport

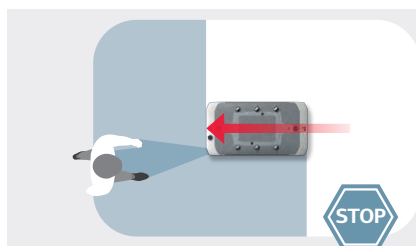
Our mission is clear: to simplify previously complex processes in the transport of goods and to make them more efficient and more economical. By applying passion, expertise, and experience, Grenzebach's specialists are developing new technologies, optimizing existing functions or adapting them to new requirements. Grenzebach's automated guided vehicles incorporate numerous technologies and innovative detailed solutions to enable them to perform their respective tasks.

Depending on the vehicle type, Grenzebach vehicles have the following technical features that make the autonomous AGVs from Grenzebach the ideal solution for automated goods transport:



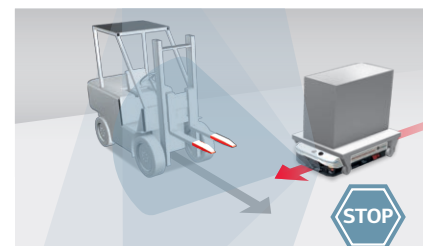
**AUTONOMOUS LOAD CARRIER DETECTION (ALCD)**

Sensors detect inaccurately positioned goods carriers (+/- 250 mm) and enable these loads to be picked up automatically for transport.



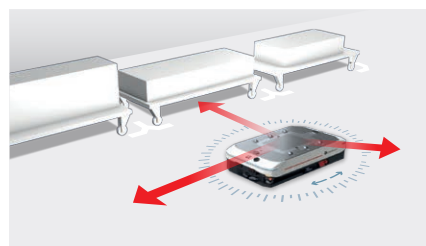
**PERSONAL SAFETY**

With the integrated safety scanner (Lidar laser scanner) and blue light, the AGVs recognize people from a distance of approx. 50 mm and stop accordingly.



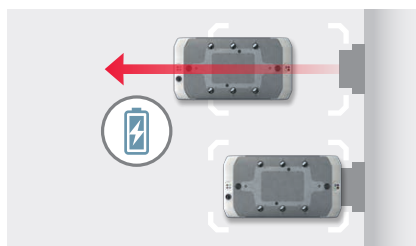
**DRIVE RANGE MONITORING (DRM)**

The 3D vision system detects interfering factors from approx. 50 mm and thereby prevents collisions.



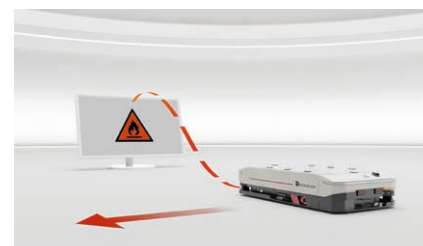
**NAVIGATION**

The AGVs feature intelligent control software that coordinates localization and communication with the system environment.



**ENERGY MANAGEMENT**

By taking a holistic view of all energy sources, energy consumption is minimized on the basis of transport orders.



**FIRE PROTECTION**

With an optional FMS module, in the event of a fire alarm the AGVs are removed from areas where they are not allowed to drive and the system is shut down in a controlled manner.

## Customers who put their trust in us



### SWISS POST: INTELLIGENT INTRALOGISTICS FOR A LISTED BUILDING



#### THE GENERAL CHALLENGE

Swiss Post processes and declares more than 30 million international consignments every year. Our customer Gilgen Logistics was looking for a solution to organize the routes of shipments intelligently and efficiently in a listed building with columns, shafts, and confined spaces to navigate.

#### MUTUALLY DEVELOPED SOLUTION PACKAGE

Working together with Swiss-based Gilgen Logistics, an intralogistics solution took shape, which uses a newly installed mezzanine floor. Gilgen Logistics was responsible for the infrastructure and Grenzebach supplied the AGS for the warehouse. This joined the two separate areas together.

#### THE GRENZEBACH SOLUTION PACKAGE

- » fleet manager, connected to the customer's warehouse management system
- » L600 automated guided vehicles for transporting goods in warehouses
- » safety concept with wireless communication safety feature

#### AMONG OTHER THINGS, OUR CUSTOMER BENEFITS FROM

- » a highly efficient overall solution despite numerous columns and shafts in the listed building
- » an efficient navigation solution with wireless communication safety feature
- » the flexibility to adapt to additional requirements during operation
- » smooth integration of Grenzebach's universal master control system into the existing software ecosystem
- » enables customer proximity through innovative and efficient advances in an urban location

There are already many benefits to using existing buildings in urban areas, and these benefits will become even greater in the future. Companies are moving ever closer to their customers in order to shorten that final leg of the journey. Intralogistics systems such as those used by Swiss Post make this possible. This came about due to the successful cooperation with Grenzebach. We see this as a milestone for the future of intralogistics.

Rudolf Steffen  
Head of Project Management at Gilgen Logistics



KÖNIG + NEURATH: AN OPEN INTRALOGISTICS SYSTEM THAT GROWS WITH YOU AND OFFERS PLENTY OF FLEXIBILITY



THE GENERAL CHALLENGE

The office furniture manufacturer opted for a high-bay warehouse and, in light of this, also wanted to automate its intralogistics processes. König + Neurath was looking for a customized and adaptive system that they could to a large extent shape themselves.

MUTUALLY DEVELOPED SOLUTION PACKAGE

Almost all transport in the company was to be automated. Grenzebach worked together with the client to provide full automation of the logistics processes in metal production, which König + Neurath can adapt to changing processes as required. Following the relevant training courses, the office furniture manufacturer can put the vehicles into operation itself.

THE GRENZEBACH SOLUTION PACKAGE

- » fleet manager from Grenzebach to control the AGVs
- » L1200S automated guided vehicles
- » WLAN boxes for sensor connection
- » charging stations and peripheral equipment
- » training package for independent commissioning of the complete system

AMONG OTHER THINGS, OUR CUSTOMER BENEFITS FROM

- » an open system that the customer can themselves adapt to changing conditions
- » training courses and close contact that enables independent commissioning
- » a holistic logistics concept that can be gradually expanded and developed

It is really important to us that we keep hold of the reins to such an extent that we can occasionally adjust a route or put a vehicle into operation ourselves. We were only able to implement this project with the depth and independence we needed because we took advantage of the training provided by Grenzebach and we had an extremely close rapport of exchanging ideas throughout the entire process.

AUDI NECKARSULM: NO TWO CARS ORDERED ARE THE SAME. NO PROBLEM FOR US.



THE GENERAL CHALLENGE

The complexity of automotive manufacturing is increasing. Nowadays, cars are rarely standardized models, and are more likely to be customized. Automotive production therefore requires the punctual delivery of precisely fitting components to workers and assembly robots in flexible production islands.

MUTUALLY DEVELOPED SOLUTION PACKAGE

Together with car manufacturer Audi Neckarsulm, we have increased the reliability of the just-in-sequence production of its new top-of-the-range model by implementing a Grenzebach solution for automatic goods transport.

THE GRENZEBACH SOLUTION PACKAGE

- » L1200S automated guided vehicles that can communicate with elevators (production on three levels)
- » fleet manager from Grenzebach acts as control center
- » safety concept in accordance with the customer's internal safety guidelines
- » customized service agreement

AMONG OTHER THINGS, OUR CUSTOMER BENEFITS FROM

- » implementation during the model change in a continuous two-shift operation
- » smooth integration into the existing software ecosystem, e.g. ERP system
- » up to 99.5% availability, which also makes production more reliable and ergonomic
- » optimal transport routes over three floors, coordinated by Grenzebach's fleet manager





**Custom-fit** is always the best fit.  
For your logistics that have special requirements.

If off-the-shelf solutions do not meet your needs and are unsuitable for the conditions of your production facility or storage environment, we can help. We develop and manufacture solutions with customized automated guided vehicles for specific requirements.

With Grenzebach AGS, you always get a solution that exactly meets your needs, even if you are dealing with an unconventional, difficult or dangerous production environment with hazardous substances.

**PROFESSIONALS YOU CAN TRUST**

With our highly qualified and specialized engineers, we are a reliable development partner and journey partner who works with you as equals. Simply tell us what challenges need to be solved and we will provide you with the appropriate equipment – no matter how difficult your operating conditions or how demanding your logistical requirements are.

Design and technical development take place in close cooperation with you. This means you get exactly the right solution for your company: a customized fleet of automated guided vehicles that is sure to make you more productive.

|| Our aim is to develop holistic solutions that are precisely tailored to a customer's needs. After a detailed analysis, we develop a specific, precisely tailored solution package including hardware, software, and service – individual for each customer. ||

Robert Luxenhofer  
Sales Director Intralogistics





# The Grenzebach service promise

## Let's talk about partnership



**We live service. Around the clock. Around the globe.**  
**We call this: WeService.**

When every minute counts, you can rely on Grenzebach. We know that in intralogistics, time is money and downtime is costly. That's why, for us, service doesn't just start when you are faced with a challenge – it starts the moment you choose Grenzebach as your partner.

With our many years of expertise, we support and advise you right from the initiation stage and through the entire project, from commissioning and beyond. Together, we optimize your intralogistics processes so that you can work with maximum productivity. Once your customized intralogistics solution has been installed, you can concentrate on your core business with peace of mind. We offer you flexible service packages for the entire service life of your system, tailored precisely to your needs.

Trained, knowledgeable contact partners are available for you at all times. They will pull out all the stops to provide maximum availability of your system by means of fast response times. We speak your language, we are in your time zone, and we are happy to help – whether on site or remotely. That is our promise to you.

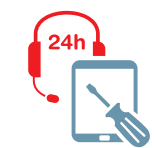


**|| The support we provide our customers includes the logistical concept as well as the technical planning for existing plants and for new plants. We also provide training for the customer's employees so that they can commission the system and subsequently operate it themselves. ||**

Michael Kammerhofer  
Head of Intralogistics



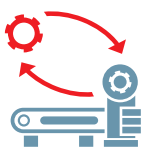
## THE GRENZEBACH SERVICE MODULES FOR INTRALOGISTICS



### EXCELLENT SERVICES

Establish system reliability, keep availability consistently high, make use sustainable:

- » 24/7 hotline
- » Remote support
- » Process optimization
- » Health checks
- » Preventive maintenance
- » Customer training
- » On-site service call-outs
- » Flexible service contracts



### ORIGINAL PARTS

Achieve maximum performance, maintain value through long service life, reduce downtimes:

- » Excellent quality
- » Electronic spare parts catalog
- » One-stop shopping
- » Maximum production reliability
- » Maximum availability
- » Optimized delivery time for spare parts
- » Optimal customer service
- » Long service life
- » Worldwide delivery



### FUTURE SERVICES

Use Grenzebach's digital solutions and benefit from smart and robust processes:

- » Predictive maintenance
- » Digital documentation
- » Detailed statistics
- » Advanced analyses



### ROLLING UPGRADES

Stay flexible, optimize efficiency, and extend service life:

- » Hardware and software modifications
- » System-specific, automated retrofits
- » System inspection and reassessment of the safety concept
- » Layout adjustments and system enhancements





Because you want to receive your deliveries **just-in-time** as well.

**ON THE CUTTING EDGE OF INTRALOGISTICS  
WHY AUTOMATE WITH GRENZEBACH?**

By choosing Grenzebach, you are entering into a trusting partnership with a reliable journey partner for the entire lifecycle of your intralogistics solution. As an expert strategic partner, we are by your side with advice and assistance during the planning and implementation of systems.

Our Service department responds flexibly to individual challenges with customized services and products. During the utilization phase, the after-sales team supports you in using the system as effectively as possible for as long as possible or adapting it to new requirements through modernizations.

**You can count on Grenzebach:**

- » An independent family business with great financial strength and its own financial reserves
- » Complete solutions provider
- » Access to the know-how of around 650 engineers and software developers
- » High innovative prowess, rapid prototyping, and fast updates
- » Worldwide manufacturing and service with local contacts
- » 24/7 support and high-quality, global customer service
- » Certified partner (TISAX, ISO 9001, etc.)
- » Durable systems and vehicles

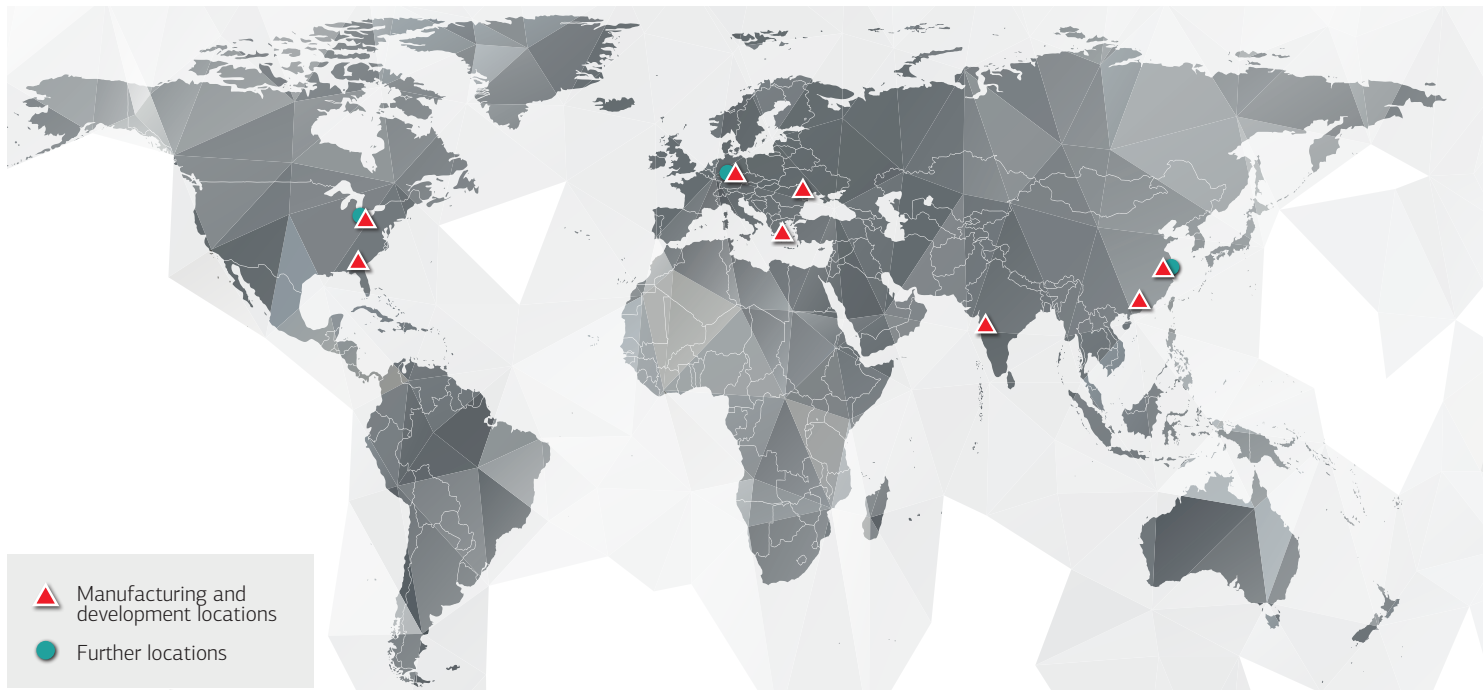
Rely on over 60 years of experience in the automation of industrial processes. With Grenzebach's expertise, gained through projects with numerous well-known customers from all over the world, suitable solutions can be found for every customer – quickly, reliably, and at a high quality.

**|| We have a fantastic partnership with Grenzebach. When new projects come up, or we have new ideas or new features from Grenzebach, there is always good communication between us, which we definitely want to continue. ||**

Felix Delbrouck  
AGS programmer König + Neurath



WORLDWIDE



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