

# AUTOMOTIVE

A custom solution  
for every challenge.

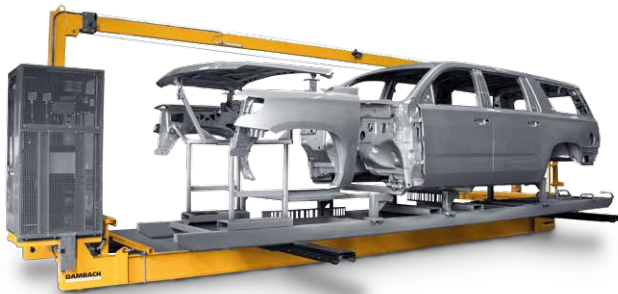


**DAMBACH**  
LAGERSYSTEME

# EXPERIENCE IN FIGURES

Users who rely on automated warehouse systems from DAMBACH Lagersysteme can count on more than 45 years of experience.

- More than 250 automotive projects completed worldwide
- Oldest warehouse in the automotive industry – in operation for 40 years
- Warehousing technology for engines, tires, seats, etc.
- Distinct experience in chassis, pressed parts and bodywork storage
- High bay warehouse 45 m high for pressed car body parts
- Projects completed across the whole supply chain – from screws to final products
- Experience in the truck sector



## DAMBACH automotive warehousing solutions

- Bodywork and pressed parts storage
- Tires and wheels storage
- Brake linings and accessories storage
- Gearboxes and cast parts storage
- Headlights and glass storage
- Electrical components and battery storage
- Exhaust systems storage
- Seat storage





# REQUIREMENTS

From large car bodies to small vehicle components, from heavy cast parts to delicate electronics, the automotive sector is highly diversified. Every load calls for individual, bespoke warehousing technology.

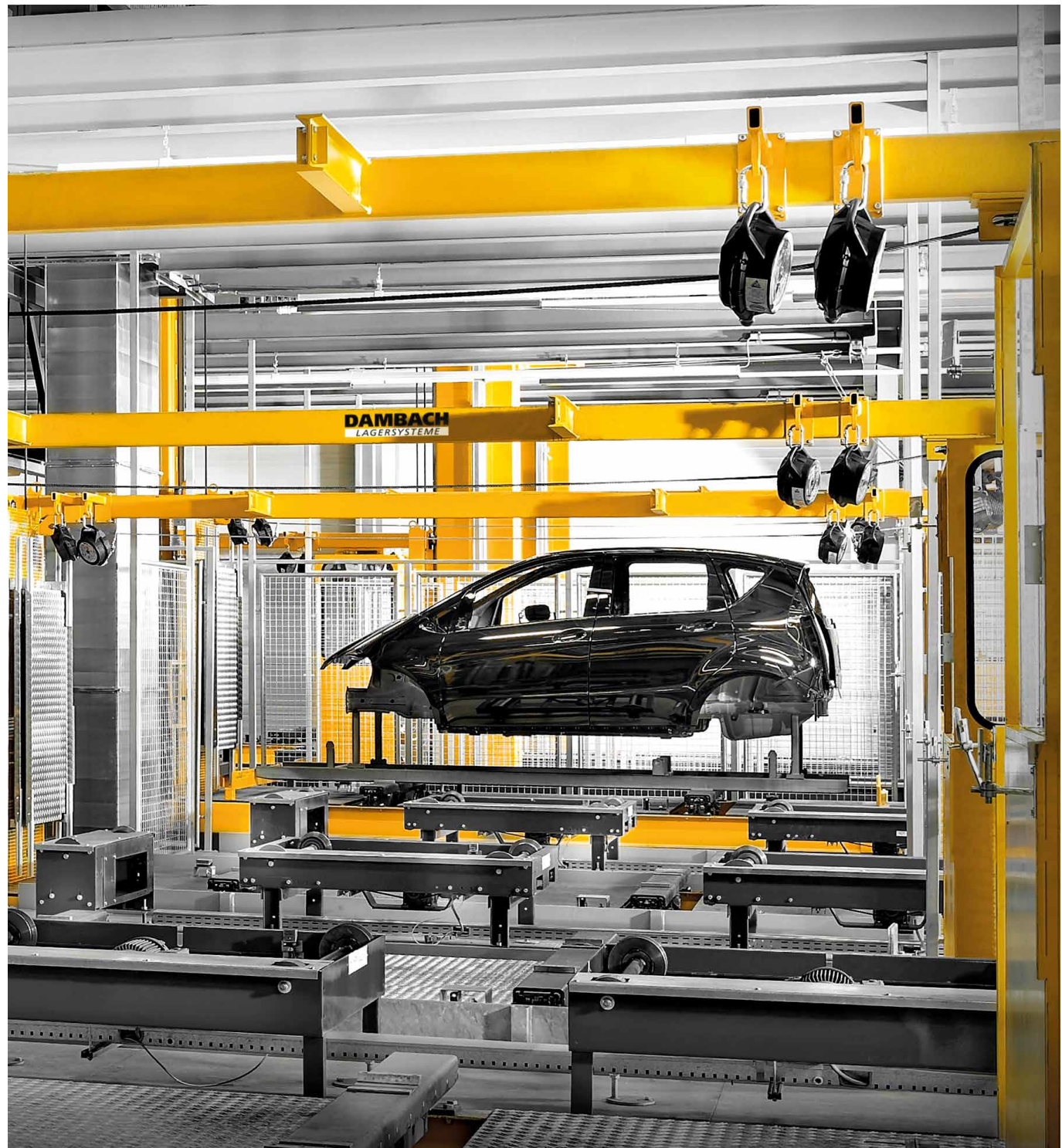
Automotive manufacturers and their suppliers have the most diverse requirements. Different regulations have to be observed and national standards must be met. Availabilities of 99% plus careful transportation of components represent enormous challenges.

# SOLUTIONS

In order to comply with automotive standards and equipment regulations, our rail-guided stacker cranes, materials-handling systems and load-handling solutions are perfectly coordinated. Products from DAMBACH Lagersysteme are as flexible as the requirements they have to meet. For example, a second drive and lifting mechanism ensure a higher reliability. In addition, two rail-guided stacker cranes can work together in one aisle and thus shorten access times. Smooth material flows and low maintenance requirements are the hallmarks of DAMBACH warehousing technology.

## DAMBACH automotive expertise

- Own CARRIER systems for vehicle components and SKID handling
- Handling of rims, tires and complete wheels
- Coordinated interfaces between rail-guided stacker cranes and materials-handling systems
- Supplier to many renowned manufacturers
- Own control expertise
- Maximum reliability
- Anticipatory service monitoring
- Experience with warehouses requiring explosion protection
- Lower noise emissions



#### Benefits of DAMBACH rail-guided stacker cranes

- All available in single- or twin-mast versions
- Load-handling equipment developed and manufactured by DAMBACH
- Suitable for combining with DAMBACH COMPACT SHUTTLES for multi-deep storage
- No-buffers end-of-aisle protection
- Maximum use of warehouse space
- Various drive concepts

## RAIL-GUIDED STACKER CRANES

Efficiency and performance count in warehouses for components, pressed parts and bodywork. DAMBACH rail-guided stacker cranes combine those strengths and, in addition, ensure maximum flexibility. We can respond quickly to increased requirements because the individual modules enable bespoke solutions for any warehouse. For example, drives can be retrofitted to provide additional speed.

The aisle-bound MONO series guarantees fast transport for any load. Besides high speeds, the series ensures the best space utilization.

The curve-going MULTI series is renowned for its excellent availability and redundancy. Points are incorporated to enable easy access to every aisle. Maximum efficiency is assured at all times: During maintenance, one MULTI unit can take over the work of another.

The MINI-LOAD series takes small-parts storage to great heights (up to 27 m) and transports all components safely to their destination. The compact design results in optimum approach dimensions in small-parts warehouses.



## MATERIALS-HANDLING

Efficiency during transport from warehouse to apron calls for an optimum interface with the rail-guided stacker crane. The highly variable components of DAMBACH materials-handling systems guarantee that this is the case for every specification, every situation.

Whether pallets, mesh box pallets or other load CARRIERS, all our components ensure careful yet dynamic materials flows. Our flexible portfolio includes chain conveyors, roller conveyors, turntables, lift tables with rollers or chains, change-of-direction units with chains, vertical conveyors and transfer wagons.

Demands regarding availability and economy are especially high in the automotive sector. All our products are known for their sturdiness and ease of servicing – ensured by the use of standard modules and identical parts plus factory-installed wiring.

#### Benefits of DAMBACH materials-handling

- High throughput rates of up to 0.5 m/s
- Load-carrying capacities of up to 1.500 kg
- Ideal for a huge range of load carriers
- Modular design for maximum flexibility
- Smooth transportation



# LOAD-HANDLING

Dependable load-handling equipment is vital for car bodies or chassis. To realise pick-and-place movements in automotive production lines, DAMBACH telescopic forks can be equipped with an eccentric stroke. Therefore, they are ideal for combining with DAMBACH materials-handling components such as the transfer wagon.

Our standard telescopic forks can handle loads of up to 1.500 kg and extend for single- or double-deep storage. Depending on the application, they can be fitted with one or two motors, or several telescopic forks can be combined. Further options include chain conveyors with tilting units or – for the safe transportation of enclosed load CARRIERS – with swivel traverse forks. With their low overall height, all DAMBACH load-handling solutions can make optimum use of the available space.

The COMPACT SHUTTLE has performed real pioneering work in multi-deep storage. And it still uses ground breaking technologies: The energy for the powerful 400 V three-phase motors and the all-wheel traction comes from efficient power caps that last much longer than conventional batteries. The excellent throughput therefore remains at the very highest level – 24/7.

## Benefits of DAMBACH load-handling equipment

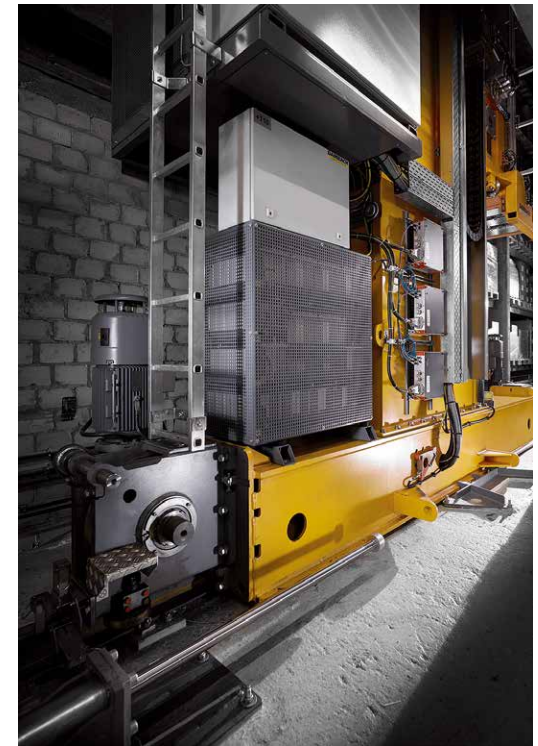
- Long telescopic fork extensions
- Maximum availability
- Low deflection
- Compatible with SKID technology
- Safety when handling tires ("incl. green tires")
- Careful transportation of rims

# CONTROLS

The multi-stage DAMBACH control solutions ensure high throughput rates in automated warehouses.

Factory-installed wiring and perfectly coordinated control hardware guarantee fast installation and commissioning. The excellent durability and reliability of control solutions from DAMBACH are further convincing features. And thanks to smart energy management with energy recovery, our products are extremely efficient.

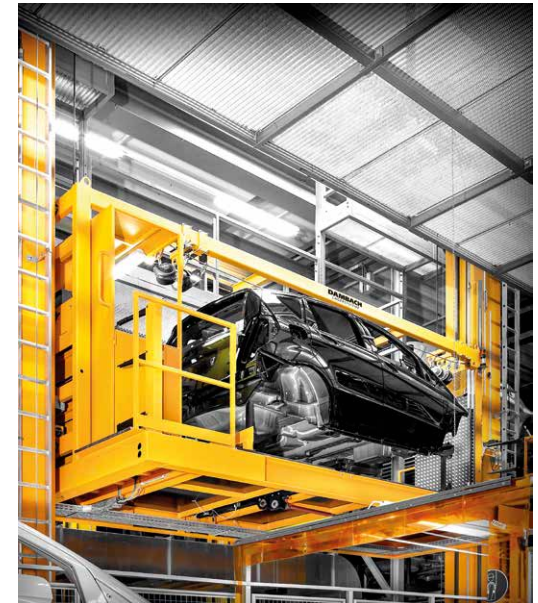
Decentralized control concepts minimise the work when commissioning materials-handling systems. This great user-friendliness also extends to maintenance: With a virtual private network (VPN) and a well-thought-out combination of camera and sensor technology, remote diagnoses, analyses and remote maintenance are no problem. All relevant data is available quickly and in full detail.

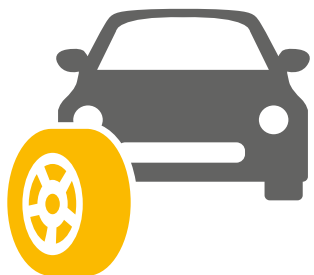


# MODERNISATION

When the goal is modernising existing warehouse systems, solutions from DAMBACH are the first choice. Our impressive portfolio covers the entire materials flow. By exploiting synergy effects from the areas of design and production, DAMBACH is able to offer convincing concepts for all modernisation projects.

The experts from DAMBACH offer competent support at all times, even for more demanding projects, e.g. when manufacturers of existing systems are no longer available. This approach enables existing systems to benefit from worthwhile innovations and performance upgrades.





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