



OUR STARS OF STORAGE AND RETRIEVAL SYSTEMS

Partner to leading
systems integrators





DISCOVER THE NEW STARS! STORAGE AND RETRIEVAL SYSTEMS COPING WITH HIGH HANDLING CAPACITIES

Whether we're talking about high-bay shelving for pallets or automated small-parts warehouses – with its innovative SIRIUS and WEGA storage and retrieval systems, raiser is setting new standards in terms of performance, reliability and safety!

Maximum precision, intelligent drive concepts

The longevity of our new "made in Germany" designs ensure high handling rates providing efficient, automated flows of goods.

At the heart of the SIRIUS and WEGA storage and retrieval systems is the rack and pinion drive concept: By means of a cardan shaft, the toothed wheels on the two carriages arranged at the top and bottom are synchronized in their movement with one another in a positively locking manner. This reduces the deflection of the mast compared to that of conventional storage and retrieval units to around 1/16th, and thus ensures particularly low-vibration travel on the X-axis. The solid design and the special mast mounting facility ensure reliable movement practically without deformation, even at dynamic accelerations of 1.5 m/s² (WEGA) or up to 5 m/s² (SIRIUS), as well as rapid positioning at the shelf space targeted.

Dynamism and flexibility

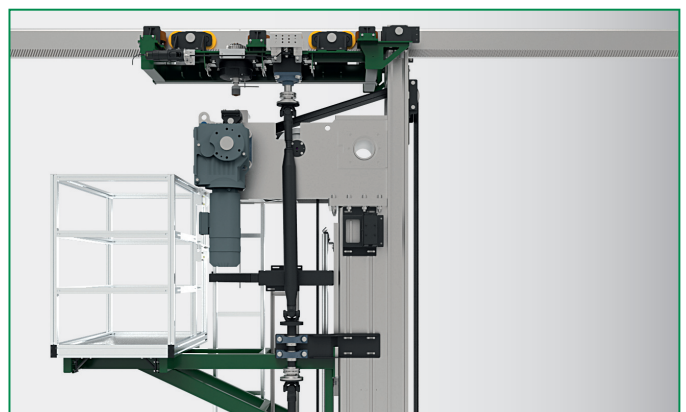
As an independent SME, raiser develops and delivers individual, tailor-made solutions at a very high in-house production rate. This guarantees maximum flexibility and short response times – not least when it comes to the rapid delivery of spare parts and components!

Our storage and retrieval systems always reach the top level in terms of quality and reliability, and our in-house maintenance team ensures that this remains the case even when stringent requirements are involved.

Discover the new raiser stars now: the latest versions of our SIRIUS and WEGA storage and retrieval systems.

TO PUT IT BRIEFLY AND PRECISELY

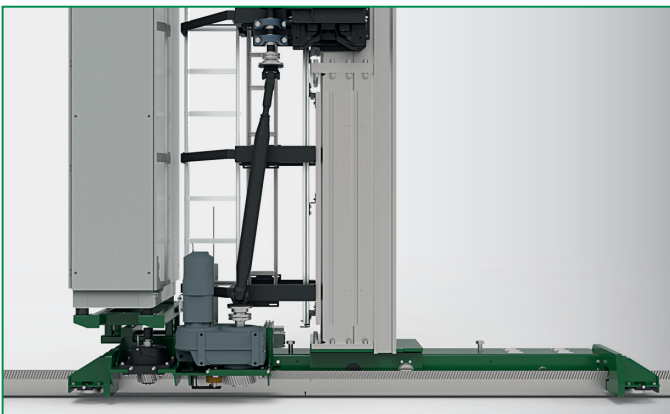
- >> A HIGH THROUGHPUT CAPACITY
- >> OPTIMUM USE OF SPACE
- >> REDUCED PERIODS OF OSCILLATION
- >> SAFETY BRAKING SYSTEM
- >> OPTIMUM ENERGY EFFICIENCY



▲ Rack and pinion drive on the upper carriage

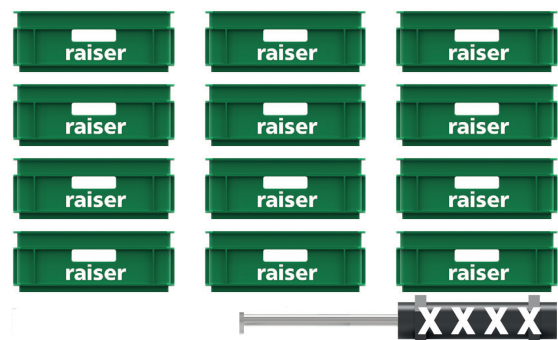


▲ Sirius-series raiser storage and retrieval systems for a major German manufacturer of light-alloy wheels based at Bad Langensalza in Thuringia



▲ Rack and pinion drive on the lower carriage

15% MORE STORAGE SPACE



▲ Operation without buffers leads to more usable storage space

SIRIUS EXCELS WHEN IT COMES TO DYNAMISM AND LIGHTNESS TOP PERFORMANCE AT ALL LEVELS

In astronomy, Sirius is known to be the brightest star in the night sky. The appearance on the scene of the SIRIUS storage and retrieval system, for which this star was the godfather, is similarly glamorous: the smallest possible approach dimensions and maximum dynamics characterize the system's high operational performance when it comes to small-parts storage. An important element are the low-maintenance high-performance timing belts, which permit short cycle times.

SIRIUS carries conviction at all levels – even at travel heights of up to 25 m! In order to appreciate the

continuous improvements to this lean system, it is worth taking a look at the small but very fine details!

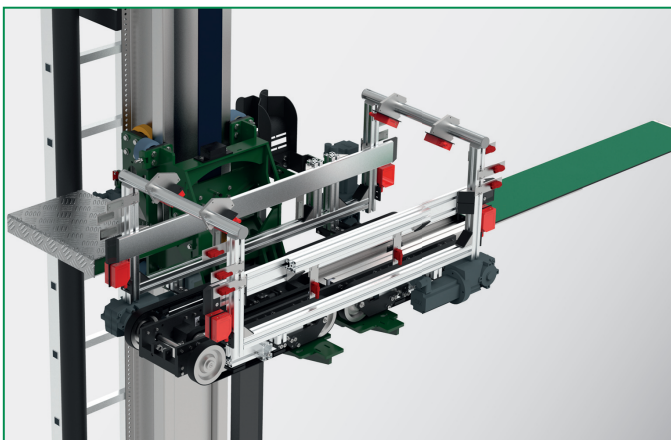
For example, we have reduced the weight of this storage and retrieval unit by around 13% and additionally optimized the total mass used to payload ratio by applying the finite element method (FEM).

Maintenance and operation simplified

The experience of our customers with the storage and retrieval unit has been incorporated into the optimization of our SIRIUS star product. For example, we have improved accessibility to wearing parts in a user-oriented manner and thus significantly simplified maintenance work. Replacing spare parts or wheels – this can be done practically in next to no time!

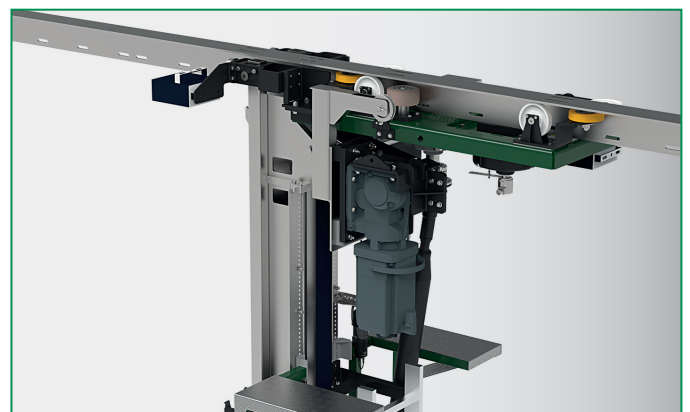
A new, automatic lubrication system is another detail that ensures maximum system availability. In addition, we have made operating procedures more ergonomic overall.

SIRIUS excels with lightness and high operational performance when it comes to dynamic use!

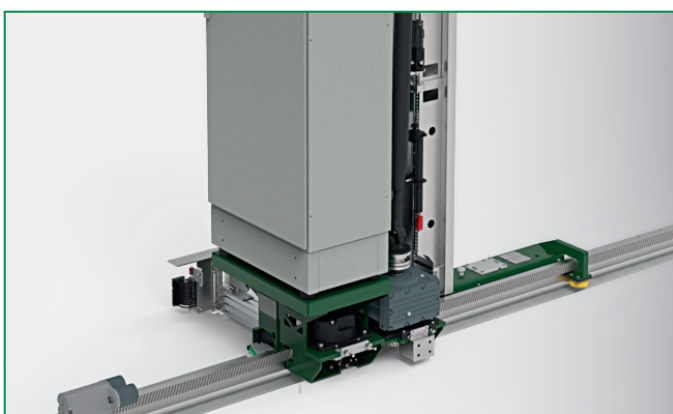


TO PUT IT BRIEFLY AND PRECISELY

- >> HIGH THROUGHPUT
- >> LIFTING HEIGHTS UP TO 25 M
- >> LOAD CAPACITY 2X 50 KG
- >> ACCELERATIONS UP TO 5 m/s²
- >> SPEEDS UP TO 6 m/s
- >> SAFETY BRAKING SYSTEM



▲ Rack and pinion drive on the upper carriage



▲ Rack and pinion drive on the lower carriage





WEGA RADIATES SECURITY AND SOVEREIGNTY LESS MASS, MORE HANDLING DYNAMICS

One of the first photographs ever taken of a star was that taken of Wega in 1850. It is one of the brightest stars in the northern sky and was once the polar star. Right from the start, the WEGA storage and retrieval system has been a fixed star in the raiser product range – and it exudes above all a sense of security and sovereignty!

WEGA has been specially designed to cope with stringent requirements when it comes to the automatic storage of pallets, meshed containers and individual carriers, especially when heavy payloads are involved. In order to improve driving dynamics even further, we have reduced the mass of the moving parts by 39.3% – for example by using hollow shafts instead of solid shafts, vents, etc. – and the lifting frame is now 28% lighter than before.

Less weight means both an increase in functionality and added value for the maintenance team, who can assemble the components much more easily.

Electronic safety device and a fixed control stand

A particularly important innovation on WEGA is the electronic safety catch. The intelligent control mechanism is a core element of this. It includes

both digital detection of the vertical movement and flexible adjustment of the speed limit above which the automatic brake is triggered.

With the replacement of the mechanical safety device by the electronic version, we were able to dispense with a complex traction cable system and gained additional installation space for another safety-related innovation: the fixed control stand – or emergency control stand – provides significantly improved protection for maintenance personnel even at dizzying heights. This fixed control stand was developed as one of the first on the market to comply with the requirements of the current DIN 528:2021-06 standard.

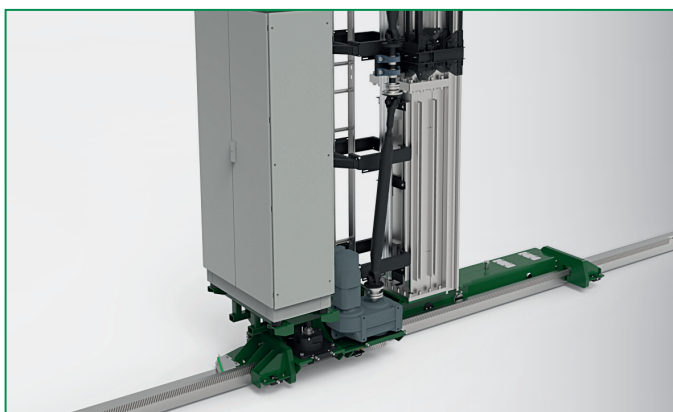
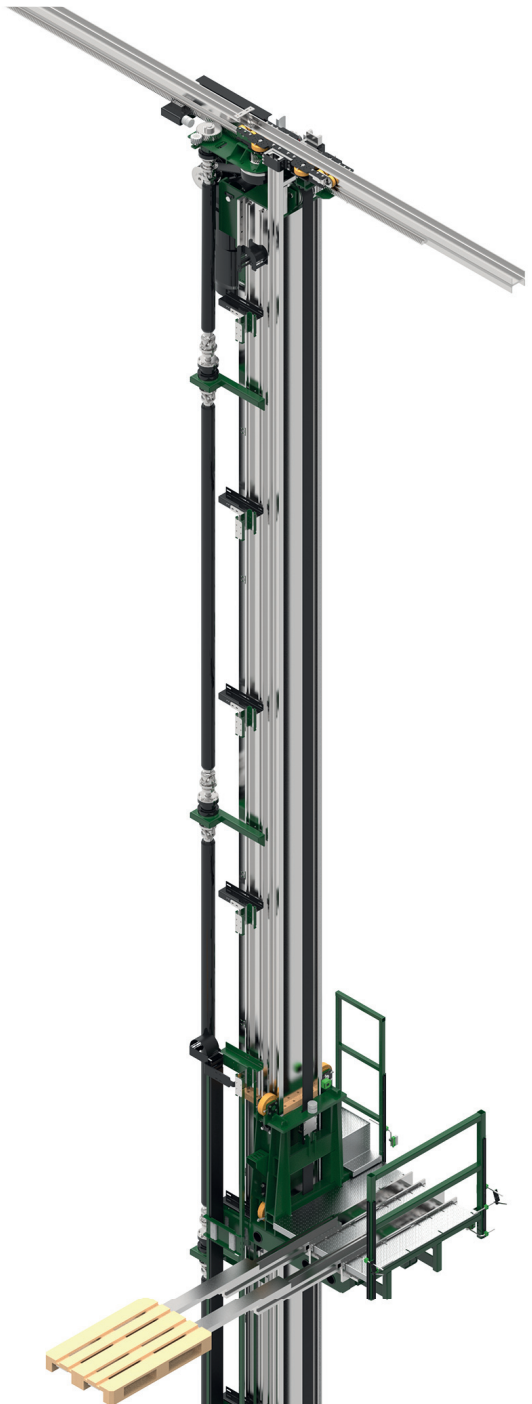
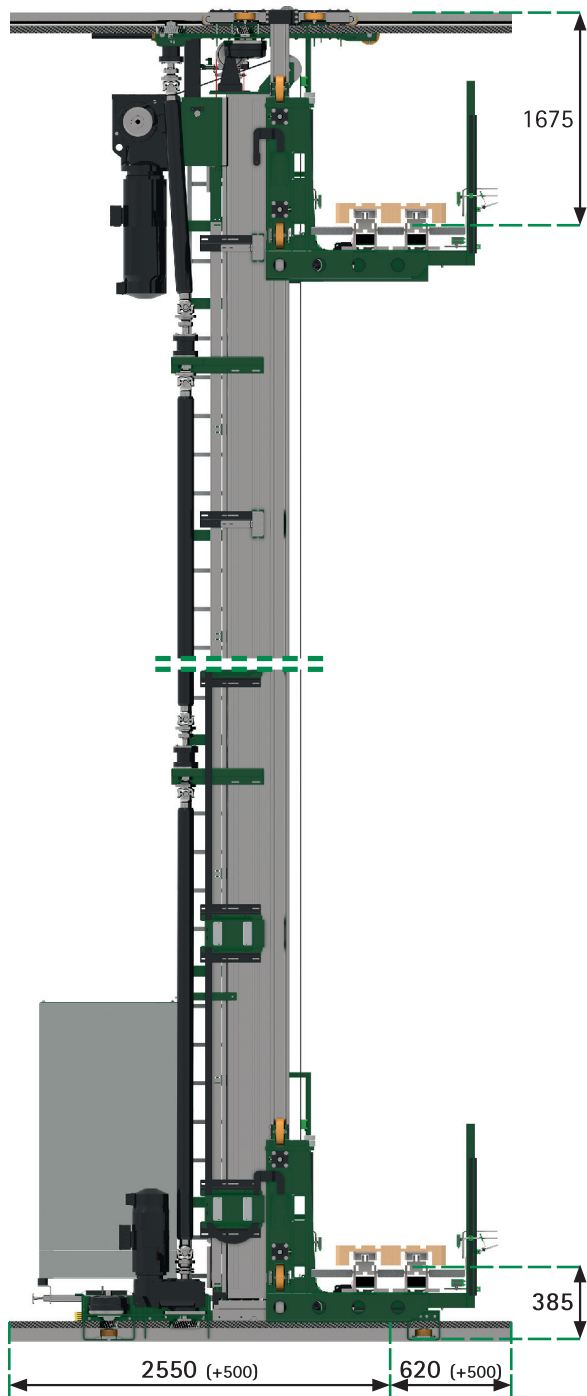
In addition, optimized transitions in the horizontal rail system ensure greater running smoothness and less vibration.

TO PUT IT BRIEFLY AND PRECISELY

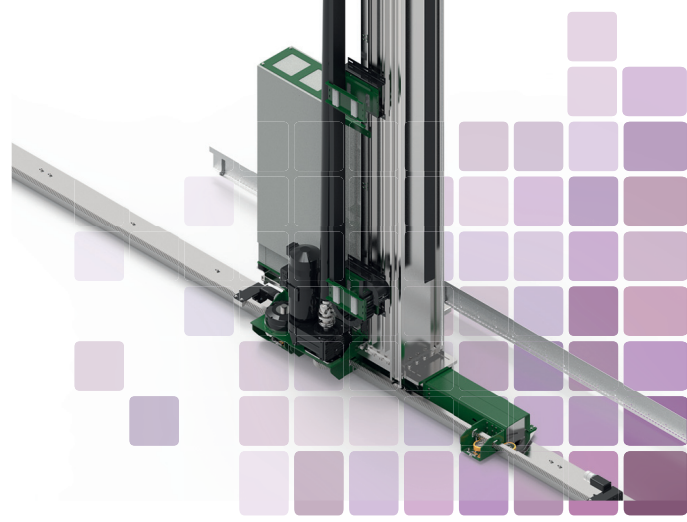
- >> HIGH THROUGHPUT
- >> LIFTING HEIGHTS UP TO 25 M
- >> LOAD CAPACITY 1.500 KG
- >> ACCELERATIONS UP TO 1,5 m/s²
- >> SPEEDS UP TO 6 m/s
- >> SAFETY BRAKING SYSTEM



▲ A fixed control stand with an electronic safety device



▲ Rack and pinion drive on the lower carriage



EUROPE-WIDE SERVICE AND SUPPORT

OUR CLEAR-CUT GOAL: MAXIMUM SYSTEM AVAILABILITY

How can we help our customers optimize their warehousing and intralogistics and achieve maximum plant availability?

Every day, this question urges us to reach for the stars and deliver absolute top-level solutions – not only as regards the design and manufacture of our high-quality storage and retrieval systems, but also, especially, when service is involved! For this purpose, we have set up our own, optimally-equipped team to deal with all maintenance and service tasks.

With our Europe-wide support facility, we provide smooth work sequences for system maintenance and repairs, as well as for the rapid and demand-oriented supply of spare parts. The high degree of in-house production enables us to react virtually at the speed of light. Thus, all required parts are either available directly from our warehouse or can be manufactured and delivered within a very short time.

From supplies of spare parts to customized adaptation

Intensive communication with system users and maintenance staff is another essential basis for successful cooperation. It provides us with direct feedback relating to optimization potential that is then incorporated into our product development.

In our customized adaptation work, we are geared to responding individually to our customers' requirements and to delivering tailor-made solutions, such as devices for accommodating payloads with special geometries.

In addition to engineering services, our spare parts service and accident prevention inspections, our service and support facility also includes special maintenance contracts for high-performance systems used in three-shift operations.

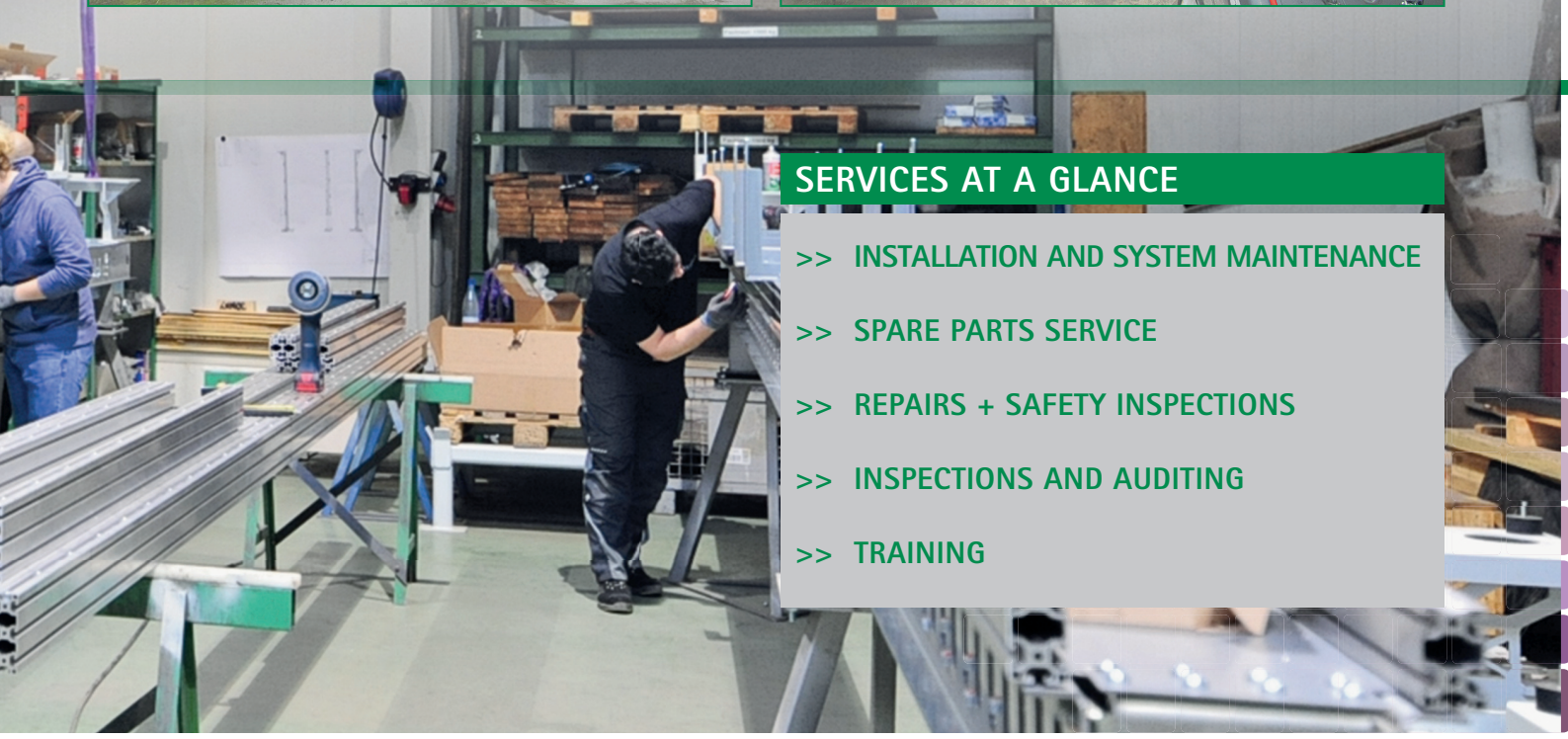
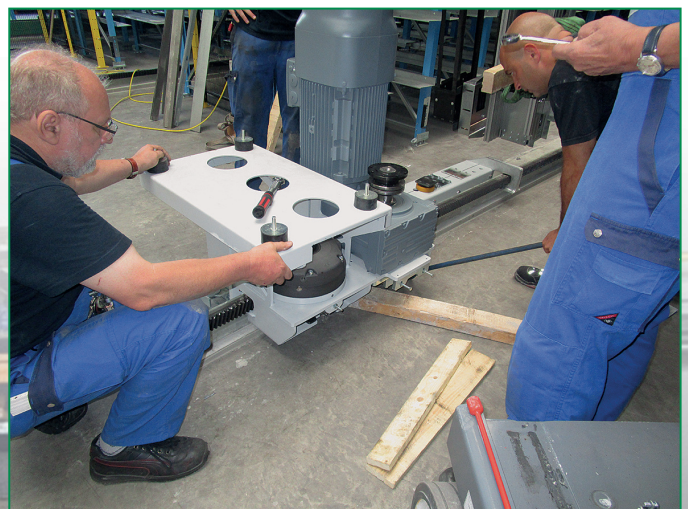




▲ Highly-qualified and creative employees turn ideas into efficient and assembly-compliant storage solutions

▼ By using CNC-controlled lathes and milling machines, raiser is able to manufacture almost all components itself

▼ Assembly, maintenance, spare parts service and a training service round off the raiser product range and ensure maximum availability of its systems



SERVICES AT A GLANCE

- >> INSTALLATION AND SYSTEM MAINTENANCE
- >> SPARE PARTS SERVICE
- >> REPAIRS + SAFETY INSPECTIONS
- >> INSPECTIONS AND AUDITING
- >> TRAINING

RAISER: A PASSION FOR TECHNOLOGY AND PRECISION

DOWN-TO-EARTH CRAFTSMANSHIP MEETS UP WITH A PIONEERING SPIRIT

Good ideas don't just fall from the sky. The stars of the raiser storage and retrieval systems – SIRIUS AND WEGA – are the result of a passion for technology, sound engineering know-how, precision based on craftsmanship, and a clear orientation towards the needs of our customers!

Our decades of experience in engineering began in 1969 with the foundation of a metalworking shop at Hemmingen by Klaus Raiser. Via the production of machine components, the path of this SME quickly led to outstanding expertise in friction welding. Dr. Elmar Raiser, the present-day shareholder and Managing Director, joined the company in 1994. Under his leadership, the development of storage and retrieval units started in 2015 and has been continuously expanded ever since.

We let the raisin stars shine bright!

In addition to the CEO Dr. Elmar Raiser, there is Boris Vormund, Chief Operating Officer (COO) and technical

manager in the storage and retrieval systems section, who is the person to contact as regards all projects relating to planning, and the implementation and integration of tailor-made solutions.

In-house production based on the highest quality standards, plus reliability, commitment and inventiveness are the particular qualities that characterize the raiser team. The more than 70 highly-qualified employees at Eberdingen (Hochdorf) are united in their common goal of making our raiser-designed stars shine brightly on our customers' premises thanks to their exceptionally-high operating performance.

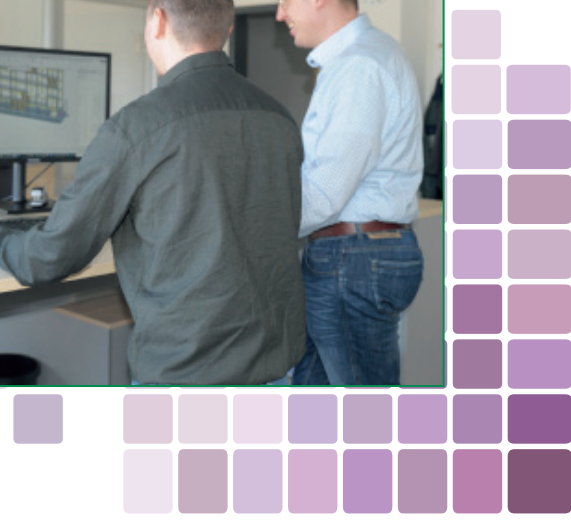
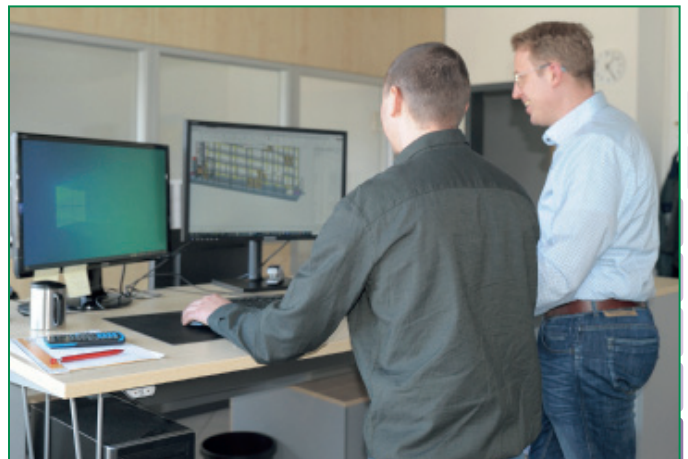
RAISER AT A GLANCE

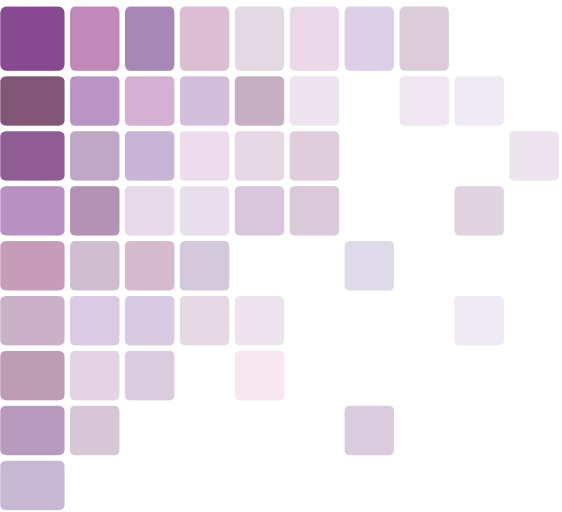
- >> COMPANY FOUNDED IN 1969
- >> 70 EMPLOYEES (AS OF 2022)
- >> A PRODUCTION AREA COVERING 8,000 SQ. M
- >> A 423 KWP PHOTOVOLTAIC SYSTEM
- >> CERTIFIED TO ISO 9001 AND 14001 STANDARDS





▲ Dr. Elmar Raiser, CEO (left), Hans Drotleff, Head of Maintenance (in the centre) and Boris Vormund, COO, Technical Manager of the Storage and Retrieval Systems Section (on the right)





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Of course you can also find everything about raiser
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Do you have questions, requests or suggestions,
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