

PRACTICE MEETS EFFICIENCY

NEXT LEVEL AUTOMATION



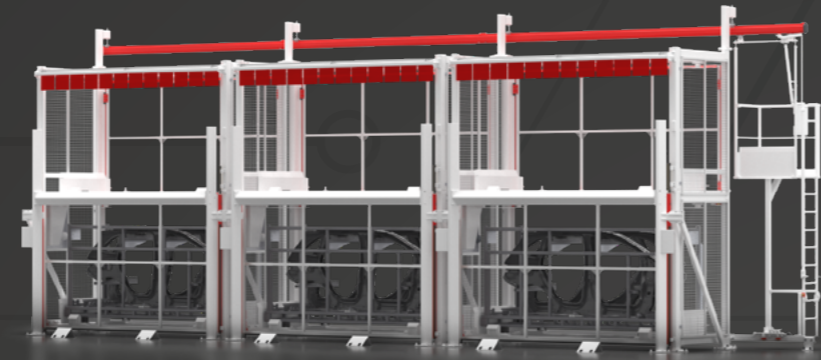
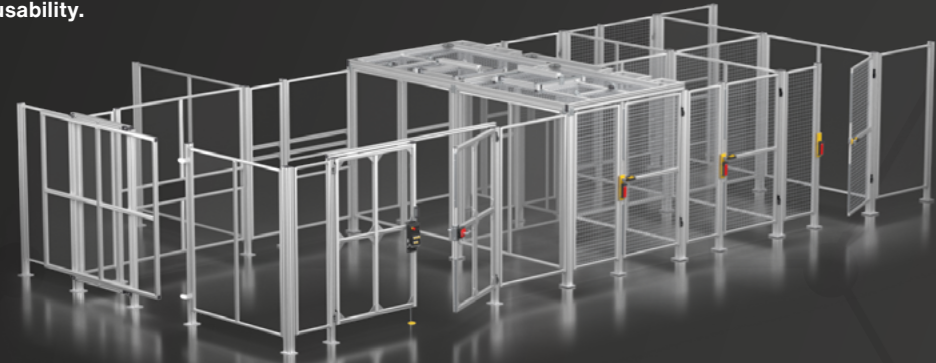
BEST PRACTICE
// PRODUCTS
// COMPONENTS
// SYSTEMS
FOR AUTOMATION AND PRODUCTION

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ALUMINUM SAFETY FENCE SYSTEMS

- // Flexible adaptation to customer and system requirements.
- // Integration of a wide range of **doors, gates, swing flaps** and **windows** in manual or automatic versions possible.
- // Various **fillings** available and combinable.
- // **Simple assembly, expandability** and **reusability**.



CONTAINER EXCHANGE/PROVISION SYSTEMS

- // For **manual or automatic changing** of component containers (racks), parts or pallets **without interrupting the automatic operation** of the systems.
- // More than **10 different systems** available.

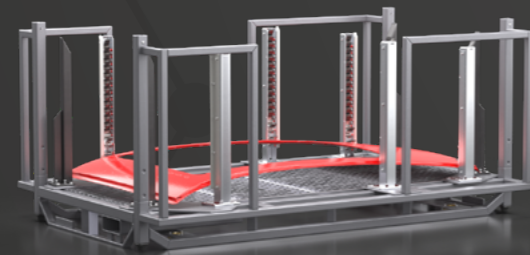
ROBOT ACCESSORIES

- // **Standard and special brackets, plinths, superstructures, platforms, mounting plates** incl. static and dynamic stability and strength verification (FEM calculation).
- // **Robot quick change plates** and devices.
- // **Robot hosepacks, application and connection cables, energy chains, spare parts** etc.
- // For all **robot types and manufacturers**.



EGT PROFILE SYSTEM AND ROBOT GRIPPERS

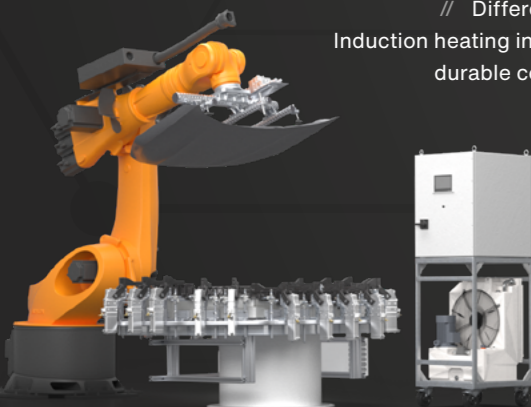
- // **Euro gripper tooling:** Aluminium modular system with around **200 standardized parts** – **modifiable** and **adaptable** as required.
- // Delivery as **finished assembly components** | **fast and dimensionally stable construction** including **synergy effects** in construction
- // **Application examples:** Robot grippers | (measuring) devices | component storage/buffer stations | drawer shelves | LCA systems and much more.
- // Customized **robot grippers** also with welded base frame including 3D measurement, electrical and pneumatic installation.



INDUCTIVE GELLING JIGS

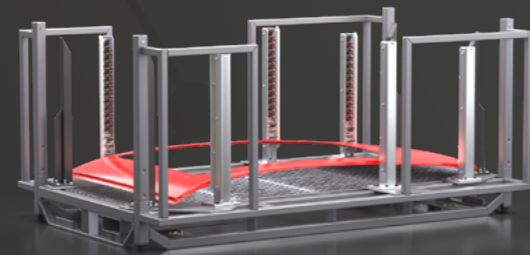
- // Field-proven heating rack from F.EE combined with high-quality induction components from BST Induktion GmbH.

- // Different types of Induction heating integratable | durable components.



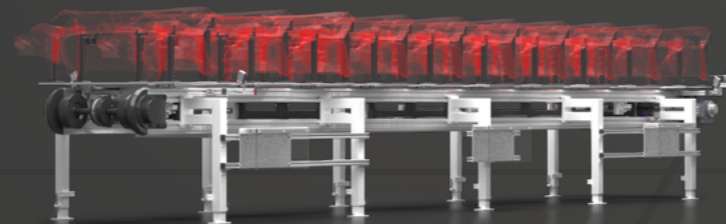
AUTOMATIC STACKING COLUMNS AND HANDLING COLUMN SYSTEMS

- // Construction and production according to customer requirements in **various sizes, materials and variants**.
- // More than **300 systems** in use **worldwide**.
- // Enables a **continuous, efficient and fast stacking** as well as **component pick up in smallest spaces**.
- // **Areas of application:** Component transportation and buffer stations | logistics container construction | drawers | LCA systems and much more.



CONVEYANCE TECHNOLOGY

- // **Stacker and high speed conveyors, cycle chain and belt conveyors** as well as **paternosters** and **LCA solutions** (Low Cost Automation).
- // Modular, high-quality **special conveyor systems** and **complete solutions** developed, constructed and made to customer requirements.
- // Suitable for **all installation options** | **infinite length** possible thanks to multiple drive concepts.



BEST PRACTICE

// PRODUCTS // COMPONENTS // SYSTEMS FOR AUTOMATION AND PRODUCTION

- // FLEXIBLE AND INDUSTRY INDEPENDENT APPLICATION
- // INDIVIDUAL SOLUTIONS FOR YOUR REQUIREMENTS
- // OPTIMAL PRICE/PERFORMANCE BALANCE
- // EASY INSTALLATION AND MAINTENANCE
- // RELIABLE AND PROVEN IN PRACTICE
- // QUALITY "MADE IN GERMANY"



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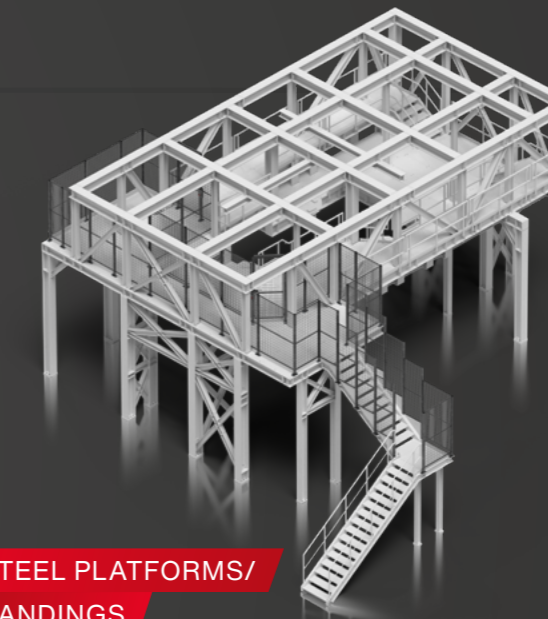
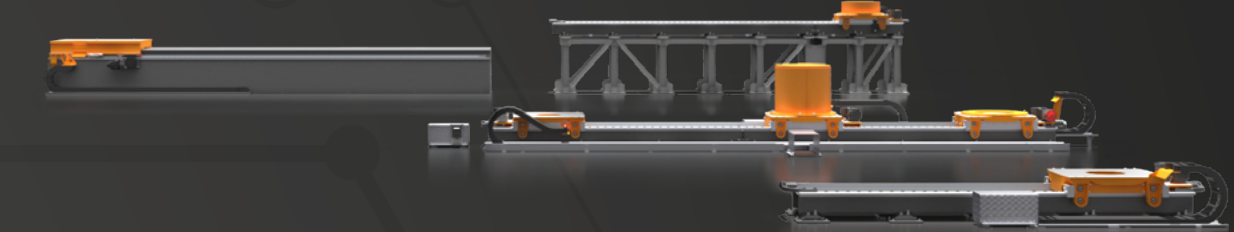
COMPONENT DRAWER SYSTEMS

- // For **precise and safe manual infeed and outfeed** of parts in an automatic system.
- // **Modular system** for **simple assembly, transportation and easy adjustment** | high wear resistance | almost **maintenance free**.
- // **Ergonomic operation**.
- // **Options and special solutions:** Swivel field | support roller | external support wheel | double carrier | pneumatic drive and much more.



LINEAR AXES FOR ROBOTS | UNIVERSAL TRANSFER AXES

- // Safe operation with **all robot types from different manufacturers** and a wide range of payloads.
- // Ceiling axes, wall axes and special solutions of all kinds can be realized.
- // **Robust, flexible and easy to maintain:** Base system made of steel profile tubes | robust flat guide rails with dirt wipers | drive via grinded, hardened pinions and gear racks | bolted roller brackets | automatic lubrication system | flexible floor fastening system | extensive range of accessories | shortening or lengthening in both directions possible at any time.
- // **Universal application possibilities** – available with rotary tables as well as clamping, welding and other devices.
- // **Special applications:** Vertical robot lifter (patented movable lifting system for robots) | storage and retrieval machines | tool changer | framing/tension frame changing systems.

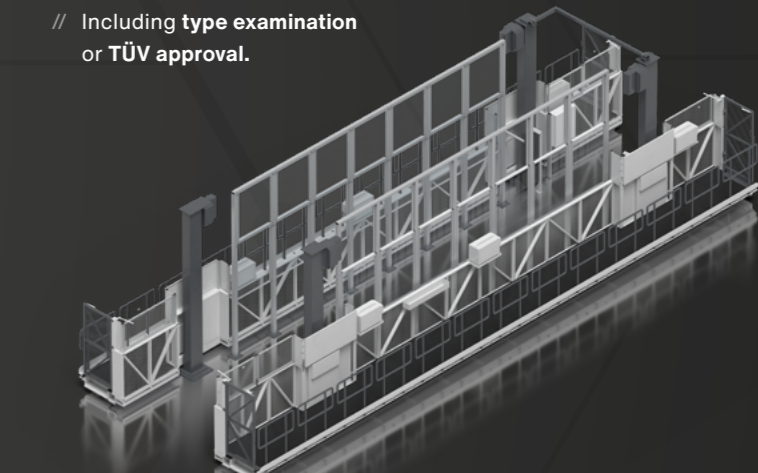


STEEL PLATFORMS/ LANDINGS

- // **Planning, project management and production of individual steel constructions** – sandblasted, primed, painted or fire galvanized.
- // Including **railings, stairs, various coverings**.
- // **Dynamic and static calculation** according to Eurocode 3 (DIN EN 1993) with preparation of verifications of load bearing capacity, serviceability, fatigue strength | **large welding verification** according to DIN EN 1090-2 EXC 3.
- // Complete **assembly** on site.
- // **Application examples:** Platforms for robots, robot transfer axes, control cabinets, other system components and crane systems | conveyor technology | clean room applications and much more.

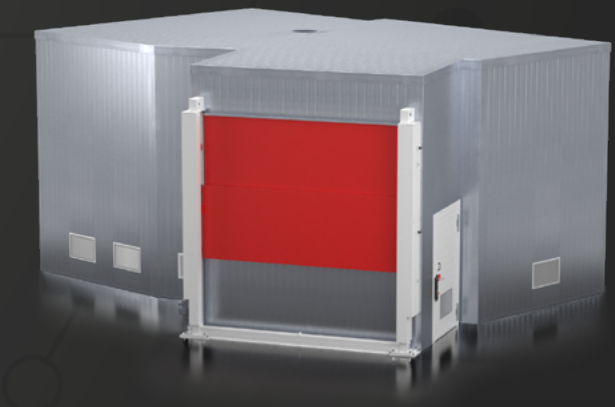
LIFTING/WORKING PLATFORMS

- // **Separately movable lifting platforms** for **stepless height adjustment** – workers, required materials, auxiliary equipment and tools are quickly and safely raised to the required working height.
- // Integration of **rail systems for tools, material lifts, movable cross bridges** possible.
- // Including **type examination** or **TÜV approval**.



LASER SAFETY CABINS

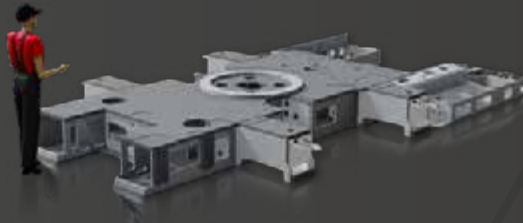
- // **Self supporting, passive laser safety cabins** made of **double walled steel profiles** with a high safety factor | integration of active laser safety equipment and acceptance by laser safety experts possible on request.
- // For **all laser types up to class 4** | certification according to DIN EN 60825-4.
- // **Simple and quick assembly** and easy implementation of **individual customization requirements** thanks to our **modular system**.
- // **Modular equipment:** Doors/gates | breakthroughs | different sealing variants | lighting | cabin monitoring | rail systems and much more.





INDIVIDUAL AND SERIES PRODUCTION

- // We specialize in the **production of complex welded parts with milling in large dimensions**, including calculation and optimization.
- // **CAM data transfer** from all common CAD systems.
 - // Continuous **CAM process chain**.
 - // **State of the art machinery**.
 - // **All surface and microstructure treatments**.
 - // With **test certificate 3.1B** and **measurement report**.



SERVICE ON TOP – THE F.EE SERVICE OFFERING

MEASUREMENT TECHNOLOGY

- // **Marking out** hall layouts.
- // **Alignment and positioning** of all system components.
- // **Calibration and adjustment** of devices, grippers etc. as well as **base determination** of industrial robots and much more.

PLANT INSTALLATION

- // **Doweling** of components (brackets, stands, etc.).
- // **Assembly** of components – robots, devices, grippers, welding guns and applications etc.
- // **Mechanical commissioning** (incorporation of devices, grippers, etc.).



MEDIA INSTALLATION

- // **Laying** pipes from the media transfer points to the distribution stations.
- // **Installation** of pipe and hose lines for pneumatics, cooling water, process gases, etc. as well as devices, grippers etc.
- // **Commissioning** (function test).

WE LIVE AND LOVE INDUSTRIAL AUTOMATION – FOR MORE THAN 40 YEARS

Since its foundation in 1982, the F.EE Group has developed into a leading provider in the field of production and automation technology in Germany. Our **four divisions** – Electrotech Engineering, Automation Robotics, IT + Systems and Energy Technology – offer a comprehensive range of services from **automation technology, robotics and control cabinet construction** to **electrical engineering, IT and industrial software**.

With innovative strength and a clear focus on quality, we develop **customized solutions** and always tailor our products and services to the **individual requirements of our customers**. Our wide-ranging customer base includes **global companies** in the automotive and supplier industry as well as **medium-sized companies** from a wide variety of sectors, energy suppliers, local authorities and power plant operators. They rely on our technical expertise, our experience and our passion for pioneering solutions all over the world.

Around
1.050
EMPLOYEES



9
LOCATIONS
WORLDWIDE



100 PERCENT
PASSION FOR
AUTOMATION TECHNOLOGY



Around
4.000
RUNNING METERS
CONTROL CABINETS PER YEAR



AUTOMATION 360° – FROM THE COMPONENTS TO THE CONTROL CABINET

F.EE stands for professional switch cabinet construction at the highest level. On a **production area** of over **10,000 m²**, we manufacture customized solutions – from **individual and modular enclosures** to complex **control consoles** and **terminal boxes** for a wide range of **indoor and outdoor applications**, such as power and voltage distribution, drive technology, control and I&C technology.

Advanced testing technology, functional simulations and optional fieldbus testing guarantee the **highest quality**. On request, we can supply with **CE marking** in accordance with EN 60204-1/EN 61439 and with **UL** and **CSA approval** for the North American market.

With **flexible production models, comprehensive know-how** and **high delivery reliability**, F.EE is your **strong partner in switch cabinet construction**.



www.fee.de/en/control-cabinet-construction