

Ergonomic manual material handling



Link to our
virtual showroom

90 years devices for people!

Ergonomics at the workplace

Why use manual handling systems?

Back and musculoskeletal ailments do considerable damage to business and the economy. They are the most common reason for sick leave and reduced performance at the workplace.

A large number of these illnesses can be attributed to handling loads incorrectly. Production processes and services are therefore delayed or cannot be completed. Increasingly health and safety at work is becoming more and more important. Our systems provide a significant contribution. They help improve workplace design to ensure that workers can adopt the most favourable posture in line with ergonomic recommendations. Thus, absenteeism due to sickness, particularly due to backache, can be avoided.

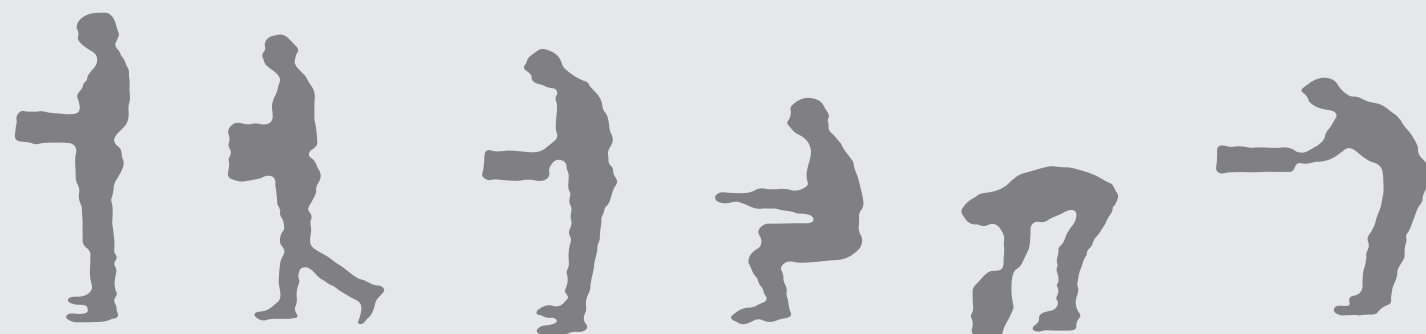


At the same time you ensure that workplaces meet the requirements of statutory standards and industrial safety regulations. The EU Machinery Directive and national regulations require, for example, the use of handling equipment where loads over 10 kg are to be moved in unergonomic positions.

Consistently high-quality production

With Zasche handling systems, your personnel is able to carry out repetitive handling operations with high precision. Thus, consistently high-quality products are ensured, rejects are avoided and claims are prevented. The various elements of our modular handling system are perfectly matched and can be combined to create complete systems.

ZASCHE handling has been manufacturing and developing handling devices and marketing them worldwide across many industries for more than 90 years. Each device is individually adapted to customer-specific requirements. Top priority is given to optimising the working procedure and the associated relieving of the strain on employees. ZASCHE handling has been a reliable partner to customers in the automotive, mechanical engineering, food and chemical industries and many other areas for many years. The range of products includes manual solutions and also partially automated systems.



Ergonomic handling devices from ZASCHE since over 90 Years!

Zasche handling GmbH was founded in 1932. The company started as a specialist in steel construction and suspension crane and developed into the market leader for handling technology, with a focus on ergonomic work.

The portfolio covers a wide spectrum, ranging from simple mechanical gripper up to semi-automatic manipulators, slewing cranes, light cra-

ne systems, hoists or steel construction. Zasche handling offers solutions for every product and for all industrial sectors.

Zasche has a well-developed sales network and service stations throughout Europe and agencies all over the world to provide its customers with the best possible support.



Pneumatic rope balancers

Our pneumatic rope balancers are suitable for positioning loads with great sensitivity and for completing complex joining and assembly tasks. The payloads are equipped with rope drums that utilize compressed air to suspend and balance payloads on the rope, allowing operators to position payloads with high levels of precision.



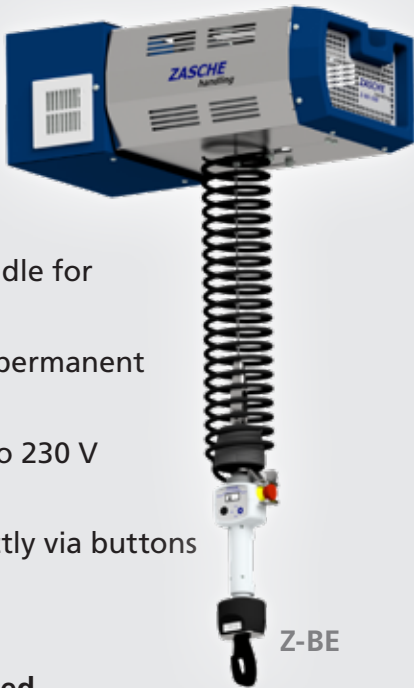
- Design variations**
- » ceiling-mounted and traversable in a suspension crane or rail system
 - » floor-mounted, with a pivot arm or slewing crane
- Control options**
- » one, two, or multiple load balancing control
 - » up/down control, with and without no-load balancing
 - » intuitive hand force detection
 - » safety features, such as gripper safety release

- Features / Benefits**
- » precise and smooth positioning of loads
 - » intuitive hand- guidance
 - » fast transfer of loads with short cycle times
 - » compact design, control, and drive all in one housing
 - » speed limiter safely preventing unacceptable lifting speeds

Electric rope balancers

Our electric rope balancers are the perfect lifting equipment for manufacturing facilities with no pneumatical air supply available. The rope balancers are designed to position and transport loads with precision. Operators are able to combine loads with components intuitively, without the use of additional control buttons.

- Features / Benefits**
- » fully adaptable operating modes for specific guiding and joining tasks
 - » ergonomic control handle for fatigue-free working
 - » high security through permanent load monitoring
 - » easy to install thanks to 230 V supply (plug & play)
 - » parameterization directly via buttons on the control handle



Basic unit	Load capacity [kg]	Stroke [mm]	Lifting speed [m/min]
Z-BP	100*	2000	0 – 60
Z-BE	100	2000	0 – 42

*with pressure of 6 bars



Articulated arms

An ideal, ergonomic lifting aid for machine operators, our articulated arms are combined with rope balancers and can be anchored to pillars, columns, and ceilings. These allow operators to maneuver the load supporting arm easily and over a large radius. Depending on payload weight, operators can choose their ideal lifting solution from our wide range of articulated arm models, which are designed to help achieve the optimum ratio between payloads and moving mass.

Our exclusive line of carbon fiber manipulators is ideal for especially small payloads. The dead mass of these carbon articulated arms is 75% lighter than those made of steel. This considerably increases productivity, positioning accuracy, and operator acceptance.

Design variations

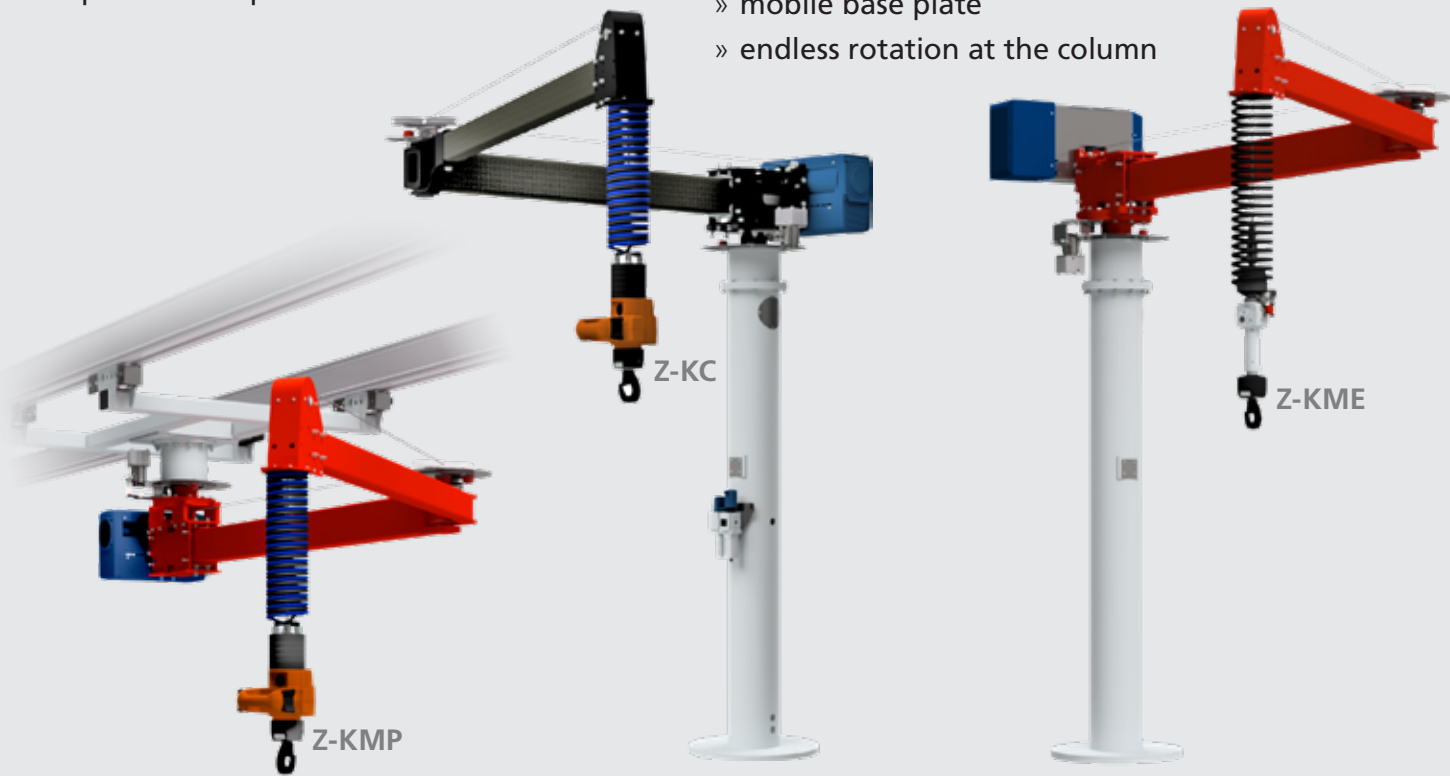
- » floor-mounted
- » ceiling-mounted stationary
- » ceiling-mounted and traversable in a suspension crane or rail system

Control options

- » one, two, or multiple load balancing
- » up/down control, with and without no-load balancing
- » intuitive hand force detection
- » safety functions, such as gripper safety release

Features / Benefits

- » brakes
- » maintenance unit
- » slewing angle sensor
- » mobile base plate
- » endless rotation at the column



Basic unit	Load capacity [kg]	Working radius [mm]	Lifting speed [m/min]	Slewing range [°]
Z-KL	80*	3200	0 – 60	330
Z-KMP	80*	3800	0 – 60	330
Z-KC	80*	4000	0 – 60	330
Z-KME	80	4000	0 – 42	330
Z-KME	125	3500	0 – 42	330
Z-KME	160	3000	0 – 42	330

*with pressure of 6 bars. Custom designs are available upon request!



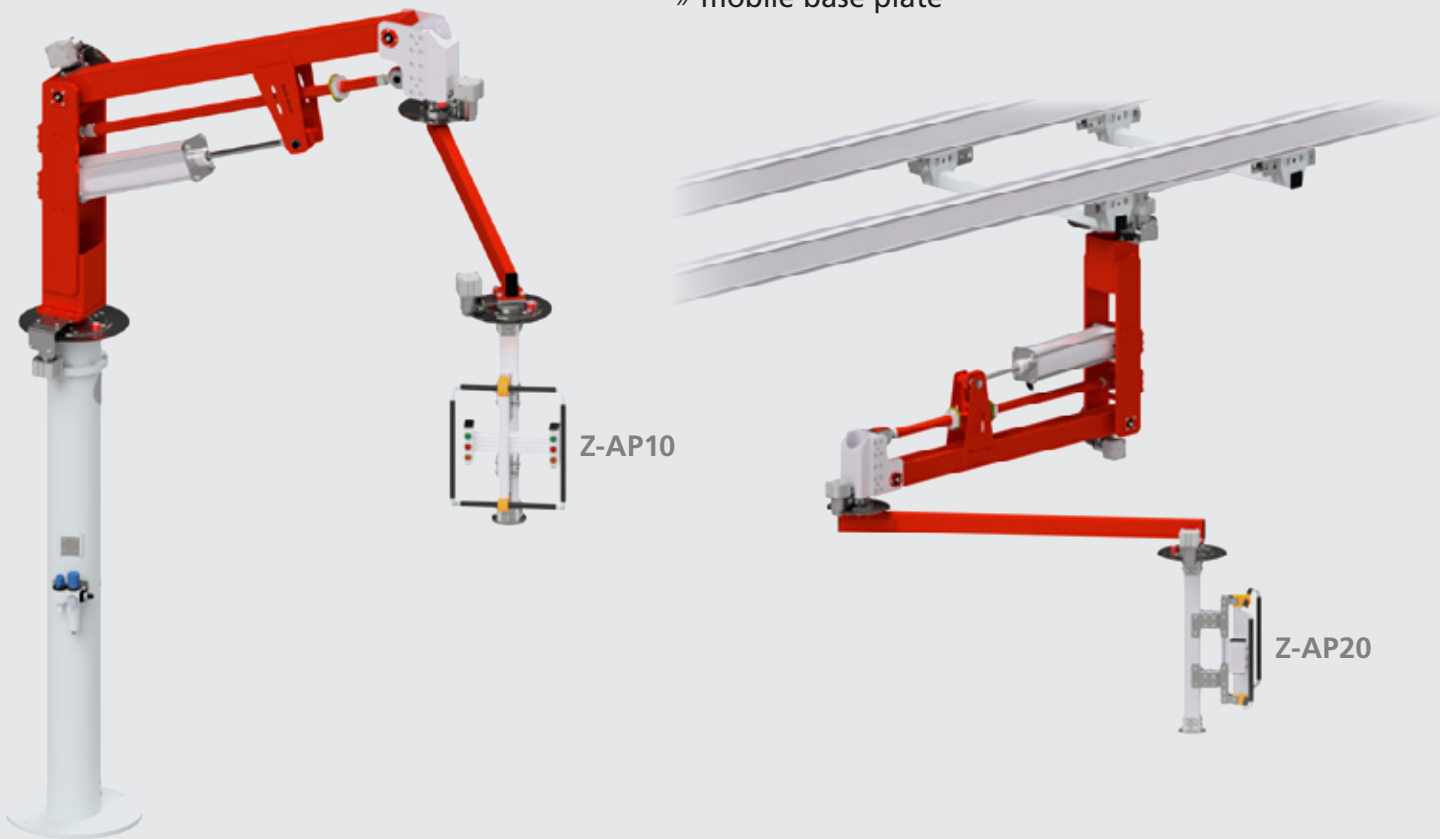
Parallelogram Manipulators

A combination of pneumatic hoists with parallelograms, our range of parallelogram manipulators is a gravity-defying solution that enables the equalization of torsional forces.

Our parallelogram manipulators come with a standard working radius of up to 3200 mm, but can be adjusted to suit the task at hand.

The optimized cross section and low dead weight of our compact parallelogram manipulators make it suitable for light-weight applications.

- Design variations**
 - » floor-mounted on a column
 - » ceiling-mounted and stationary
 - » ceiling-mounted and traversable in a suspension crane or rail system
- Control options**
 - » one, two, or multiple load balancing
 - » up/down control, with and without no-load balancing
 - » intuitive hand force detection
 - » safety features, such as gripper safety release
- Features / Benefits**
 - » brakes
 - » maintenance unit
 - » slewing angle sensor
 - » lifting lock
 - » mobile base plate



Basic unit	Load capacity [kg]	Working radius [mm]	Stroke [mm]	Slewing range [°]	Load flange torque [Nm]
Z-AP-10	120*	3200	1700	330	800
Z-AP-20	240*	3200	1700	330	1200
Z-AP-50	300*	3200	1700	330	1500

*with pressure of 6 bars / SonderDesign variations auf Nachfrage möglich!



Lifting axes

Our lifting axes can lift loads of up to 1000 kg, perfect for rigid and off-centered loading. It can also be combined with a chain hoist.

The lifting axes are equipped with hardened and ground recirculating ball bearing guides and low maintenance recirculating ball bearing guide sleds to allow linear stroke movements with minimal force. Operators will be able to lift payloads safely, comfortably, and with a high level of control with our pneumatically powered lifting axes.

Design variations

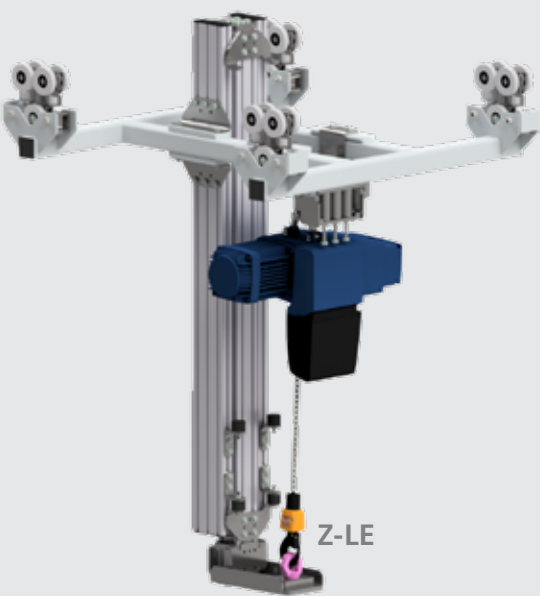
- » ceiling-mounted and traversable in a suspension crane or rail system
- » floor-mounted with a heavy-duty pivot arm

Control options

- » one, two, or multiple load balancing
- » up/down control, with and without no-load balancing
- » intuitive hand force detection
- » safety features, such as gripper safety release

Features / Benefits

- » brakes
- » maintenance unit
- » positioning scanning
- » lifting lock
- » travel drive in x/y axis



Basic unit	Load capacity [kg]	Stroke [mm]	Slewing range [°]	Load flange torque [Nm]
Z-LP-6	160*	1200	330	600
Z-LP/E-12	300*	1200	330	1200
Z-LP/E-25	1000	1200	330	2500

*with pressure of 6 bar. Custom designs are available upon request!



Telescopic lifting devices

Telescopic lifting devices are maneuvered up and down by electrically actuated chain hoists that uses internal or external running chains. Available as single or double telescopic (which can be used in low headroom applications), the telescopic lifting devices can be fitted with a square column as a square telescope (TV) or with a round column as a round telescope (TR).

These telescopic lifting devices are suitable for handling heavy loads up to 1500 kg and large torques of up to 5000 Nm, with maximum available strokes up to 2000 mm.

The devices can also be combined with a rail system or with a floor-mounted Z-K2 heavy duty pivot arm.

Design variations

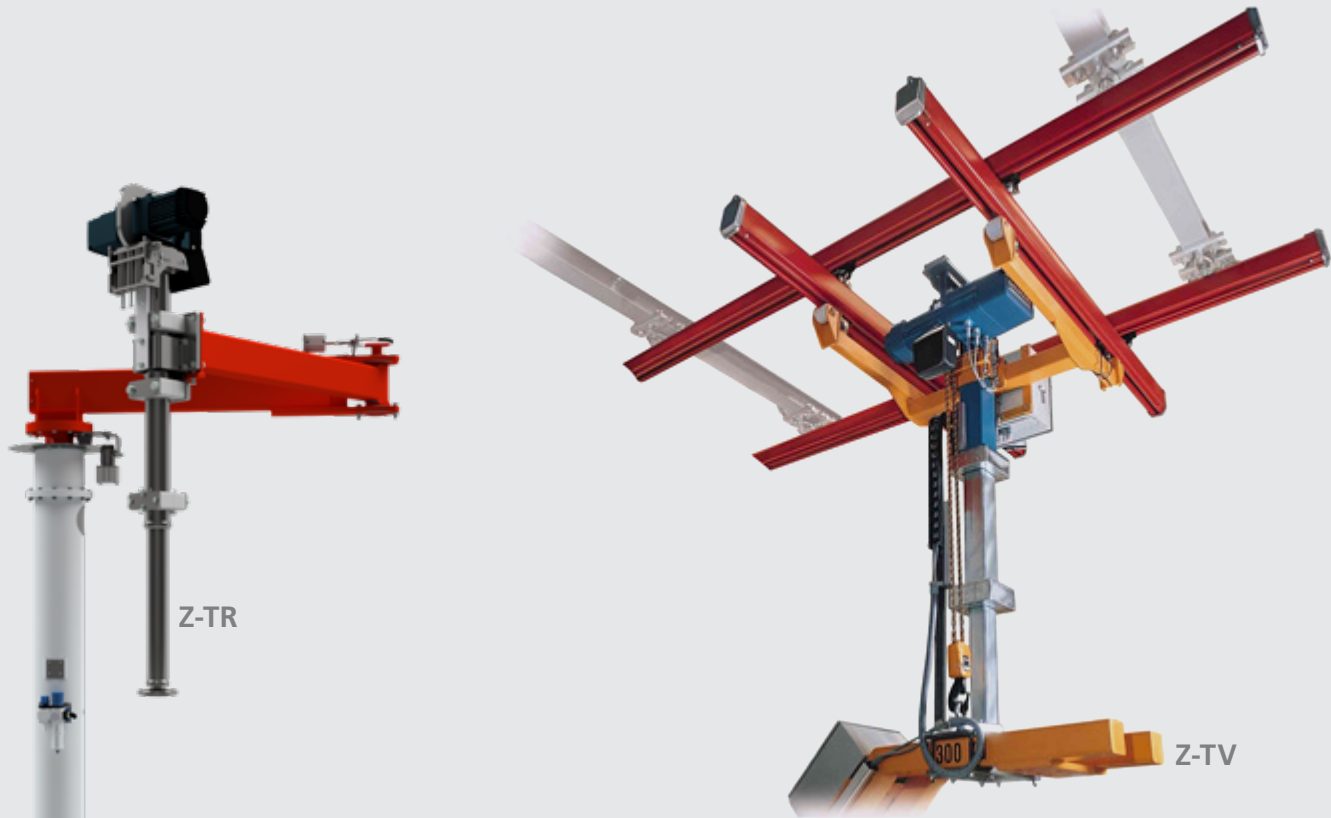
- » ceiling-mounted and traversable in a suspension crane or rail system
- » floor-mounted with a heavy-duty pivot arm

Control options

- » up/down
- » safety features, such as gripper safety release

Features / Benefits

- » brakes
- » positioning scanning
- » travel drive in x/y axis



Basic unit	Load capacity [kg]	Stroke [mm]	Load flange torque [Nm]
Z-TR	475	1800	750
Z-TV	1000	2000	1500

Custom designs are available upon request!

Stacker cranes

Available as overhead or floor-mounted systems, our stacker cranes may be used to reach off-centered pick-up positions and to perform large strokes beyond the operators' reach. The control unit will remain within easy reach regardless of the long distances between the pick-up and stacking positions.

The lifting capacities and torques of the stacker cranes can be specially designed to suit your application.

Design variations

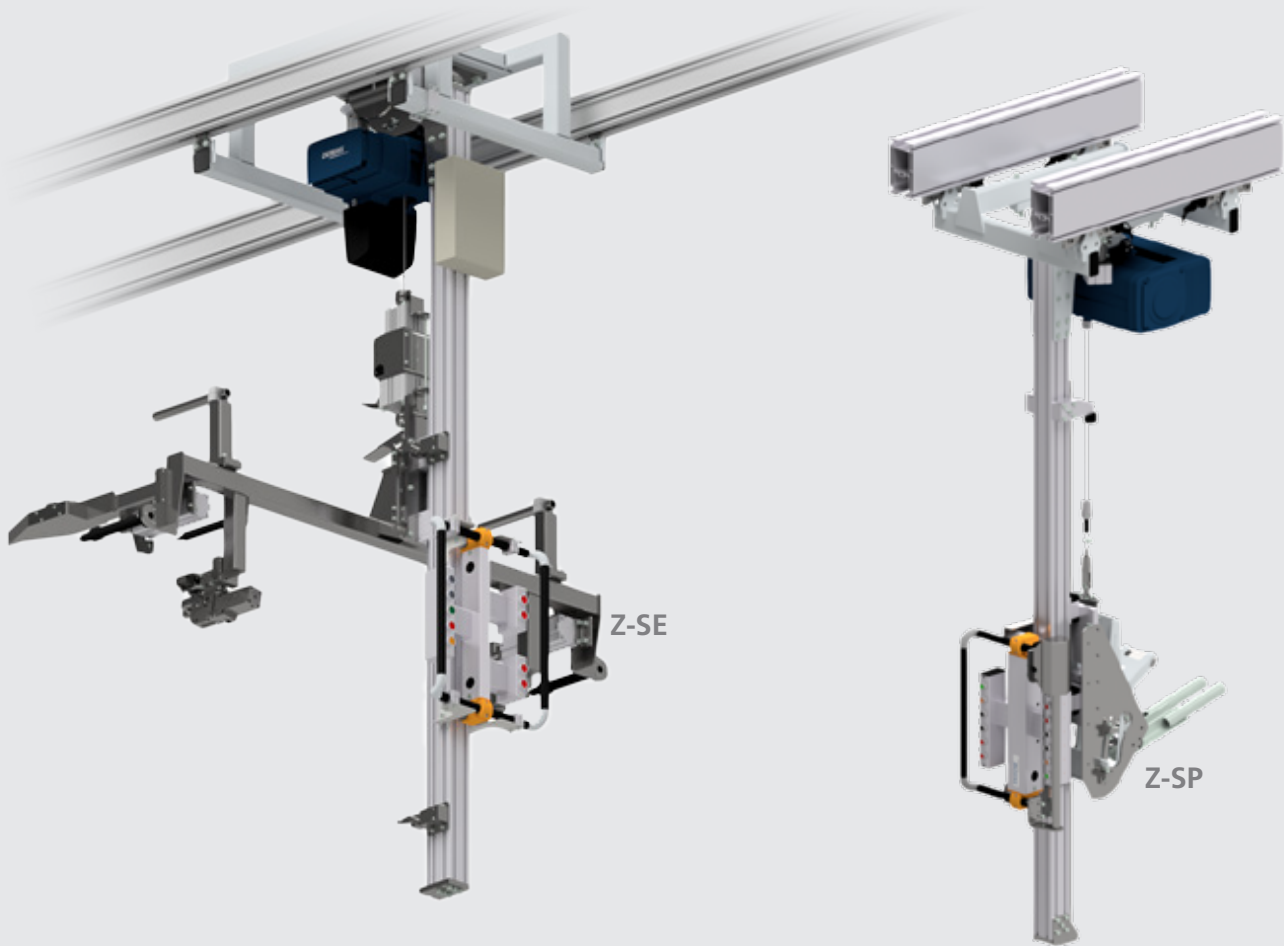
- » ceiling-mounted and traversable in a suspension crane or rail system
- » floor-mounted with a heavy-duty pivot arm

Control options

- » up/down
- » safety features, such as gripper safety release

Features / Benefits

- » positioning scanning
- » travel drive in x/y axis



Basic unit	Load capacity [kg]	Stroke [mm]	Load flange torque [Nm]
Z-SP	100*	2500	800
Z-SE	500	3000	3000

Custom designs are available upon request!



Torque supports

Torque supports from ZASCHE strike with their simple and robust design and are suitable for almost all screwdriving applications.

Due to the consistent lightweight construction of the T-Lift, it enables extremely easy guidance of screwdrivers or tools and absorbs safely reaction of torques.

By using a polygonal shaft and a sophisticated modular system, different screw joints can be integrated into one device and making your process more productive and safer.

Depending on the application, the stroke is powered by a rope balancer or with a pneumatic cylinder.

Design variations

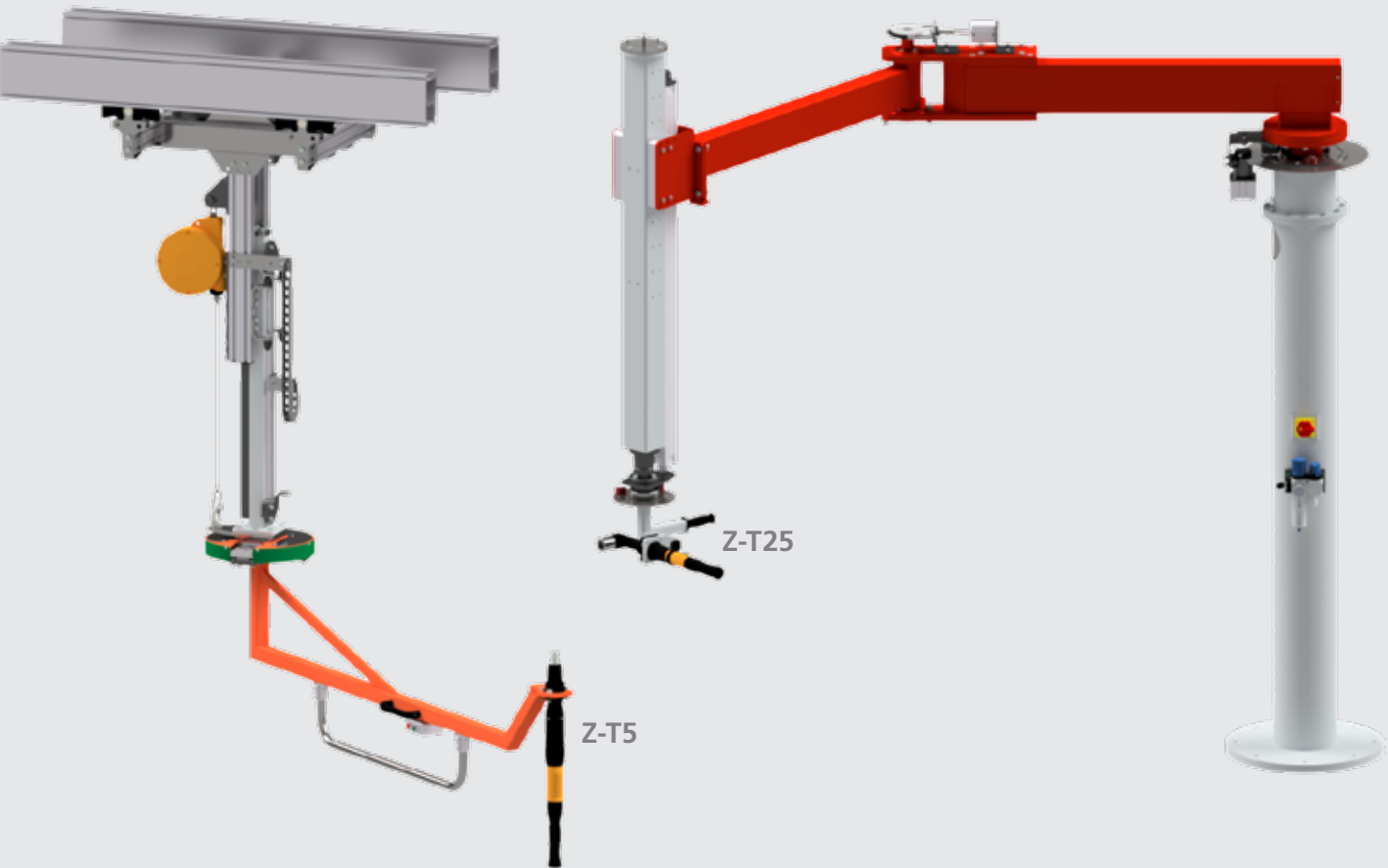
- » floor-mounted
- » ceiling-mounted and traversable in a suspension crane or rail system

Control options

- » one load balancing
- » up/down control

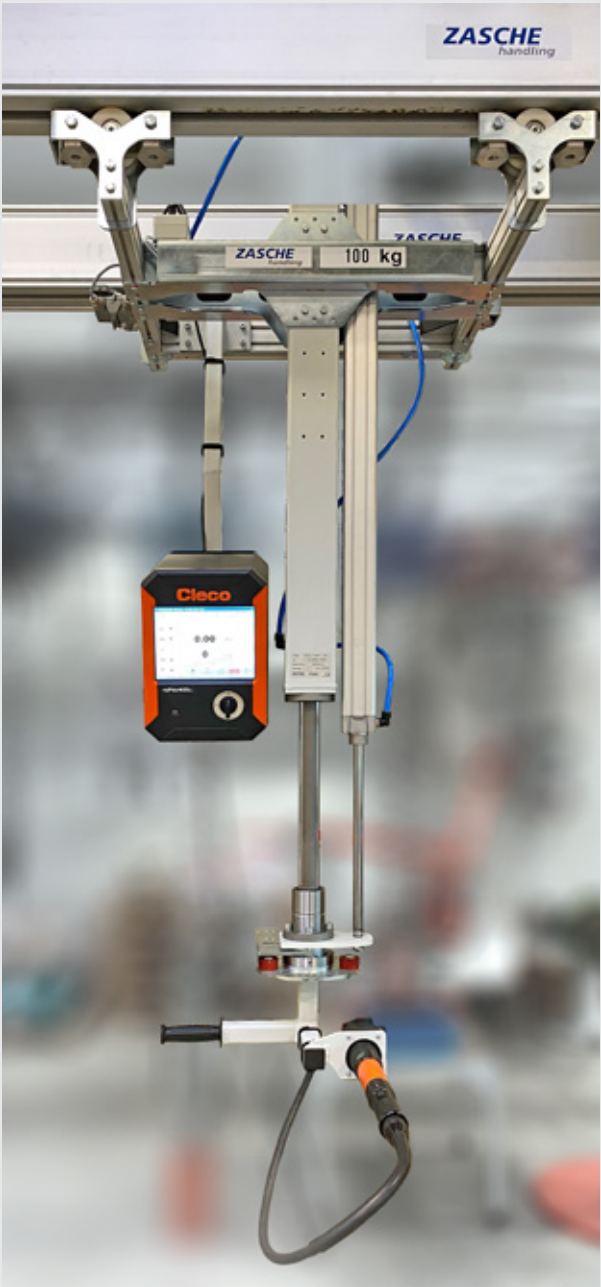
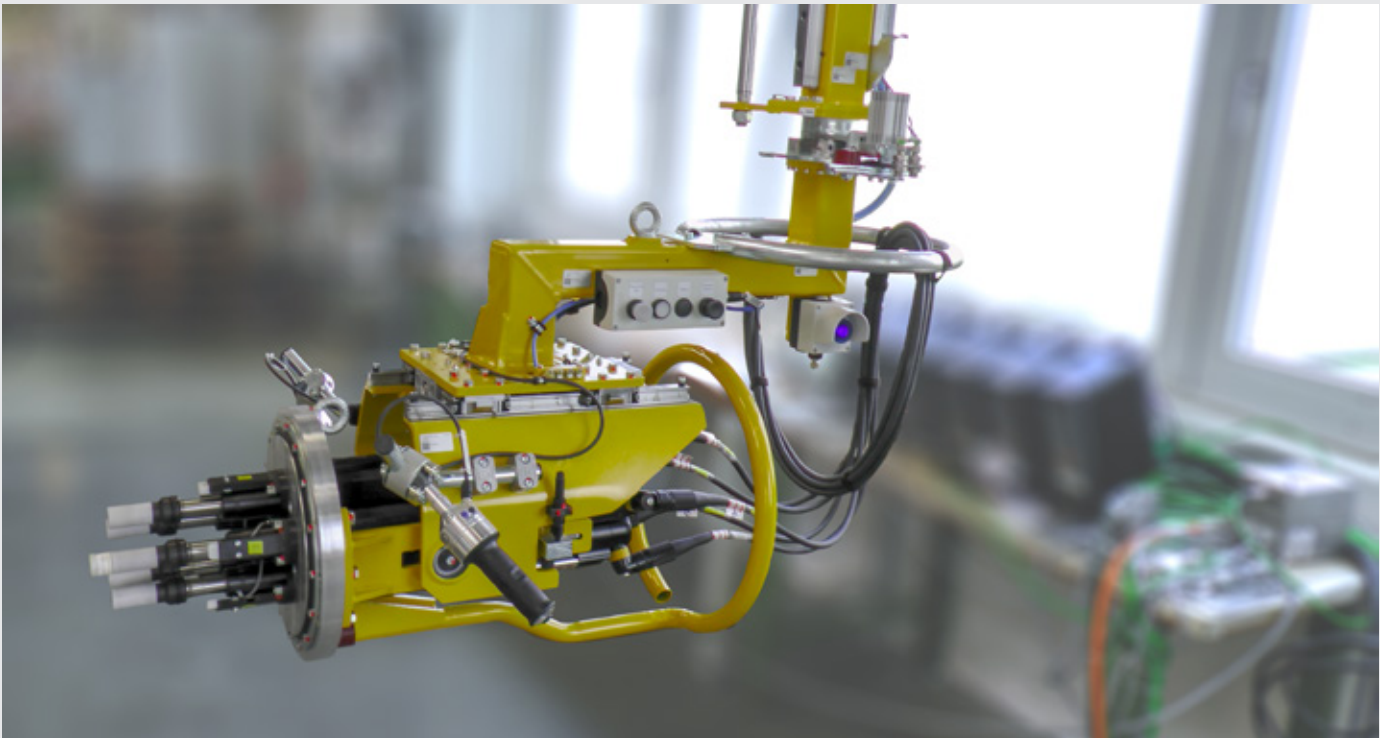
Features / Benefits

- » screw joint slew able or with fixation
- » brakes
- » lifting lock
- » positioning scanning
- » travel drive in x/y axis



Basic unit	Mx/My [Nm]	Mz [Nm]	Stroke [mm]
Z-T5	500	600	800
Z-T15	1500	800	800
Z-T25	2500	1000	800

Custom designs are available upon request!

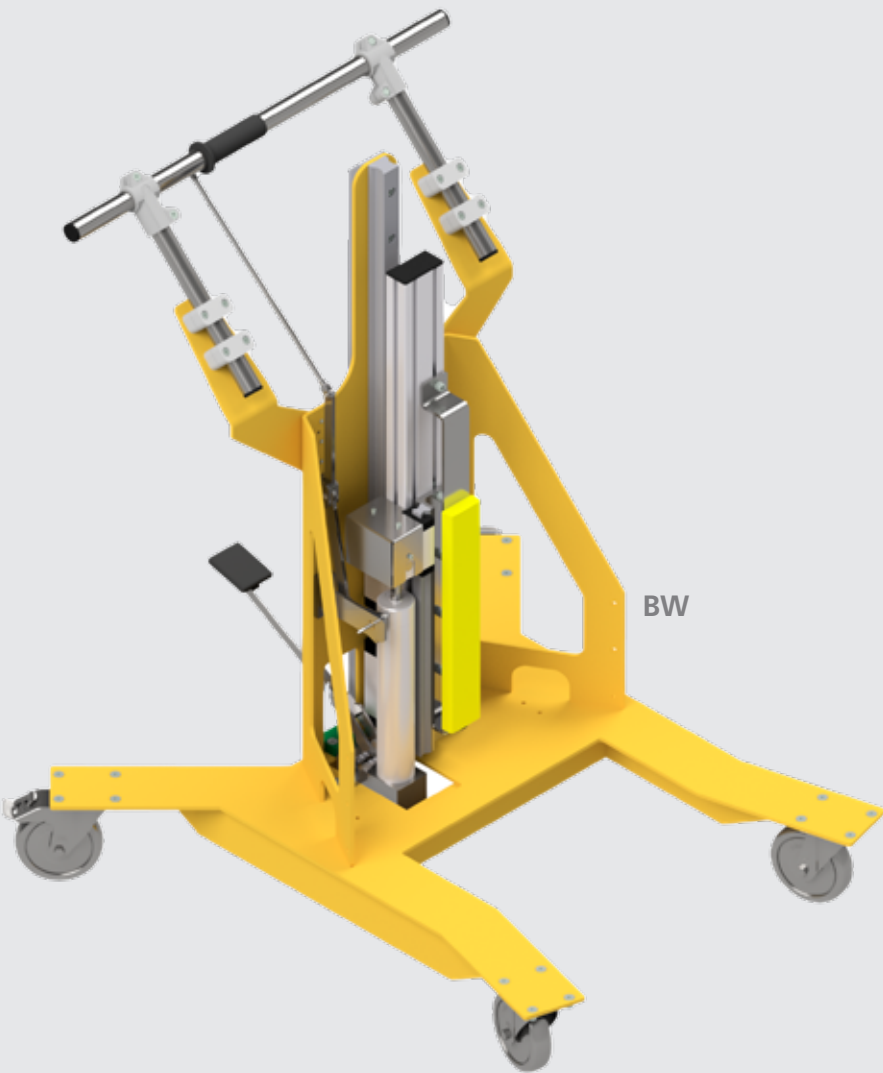


Floor-guided handling devices

Our floor-guided handling devices are special, mobile solutions that boast enormous lifting capabilities. These devices are ideal for situations where it's not possible or convenient to anchor a handling device to the floor, ceiling, or column.

Able to work independently of specific installation points, the floor-guided handling devices can be operated mechanically, electrically (e.g. battery), hydraulically, or pneumatically.

- Design variations**
- » electric, hydraulic, and pneumatic strokes available
 - » designed according to customers' requirements
 - » available with or without a gripper
- Control options**
- » up/down control using a button or foot pump
- Features / Benefits**
- » brakes



Basic unit	Load capacity [kg]	Stroke [mm]
BW	100	600

Custom designs are available upon request!

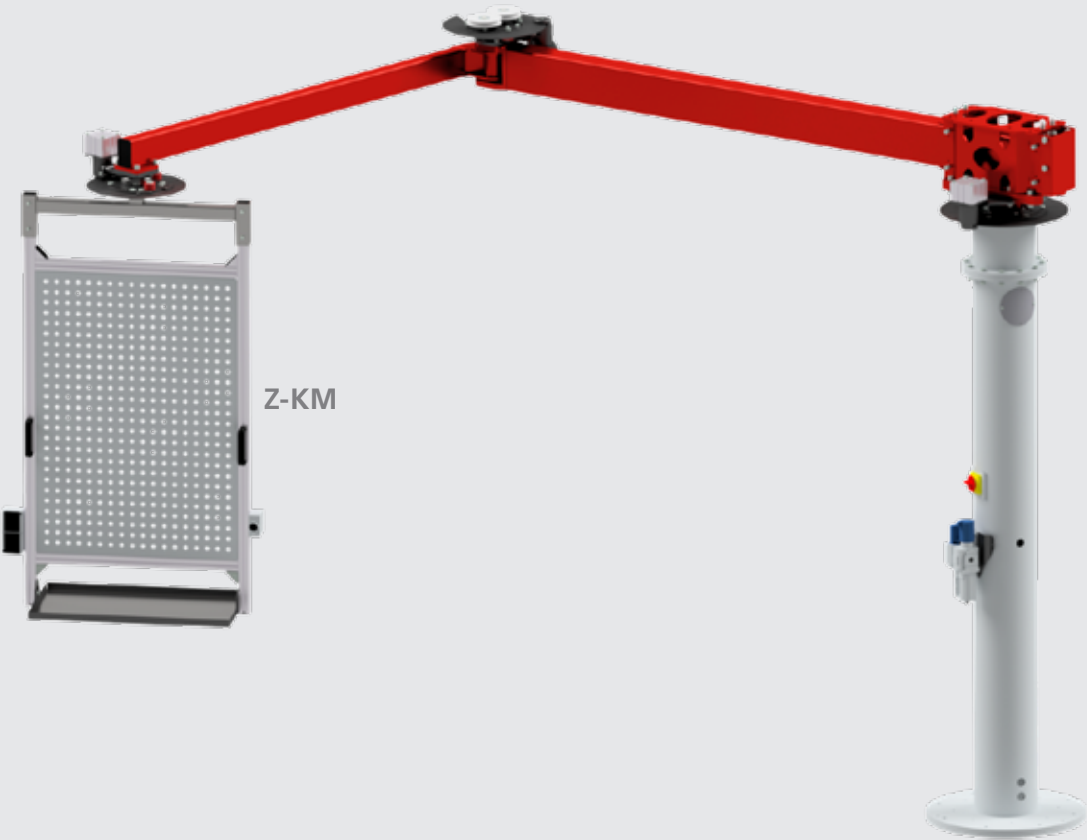


Tool handling / tool panels

Whether it is tool or fixture handling, we can provide the optimized tool panel for you and your process.

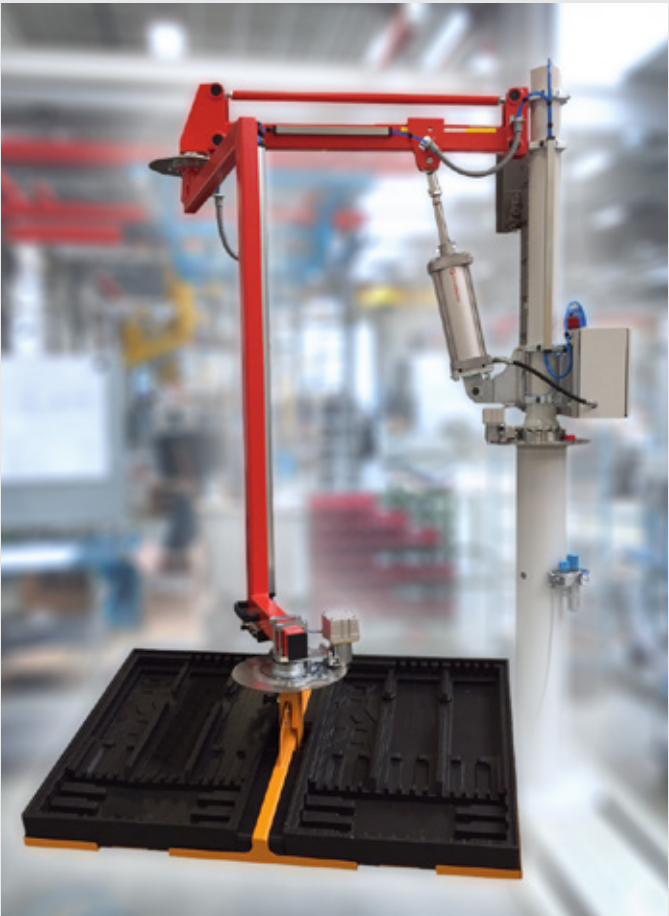
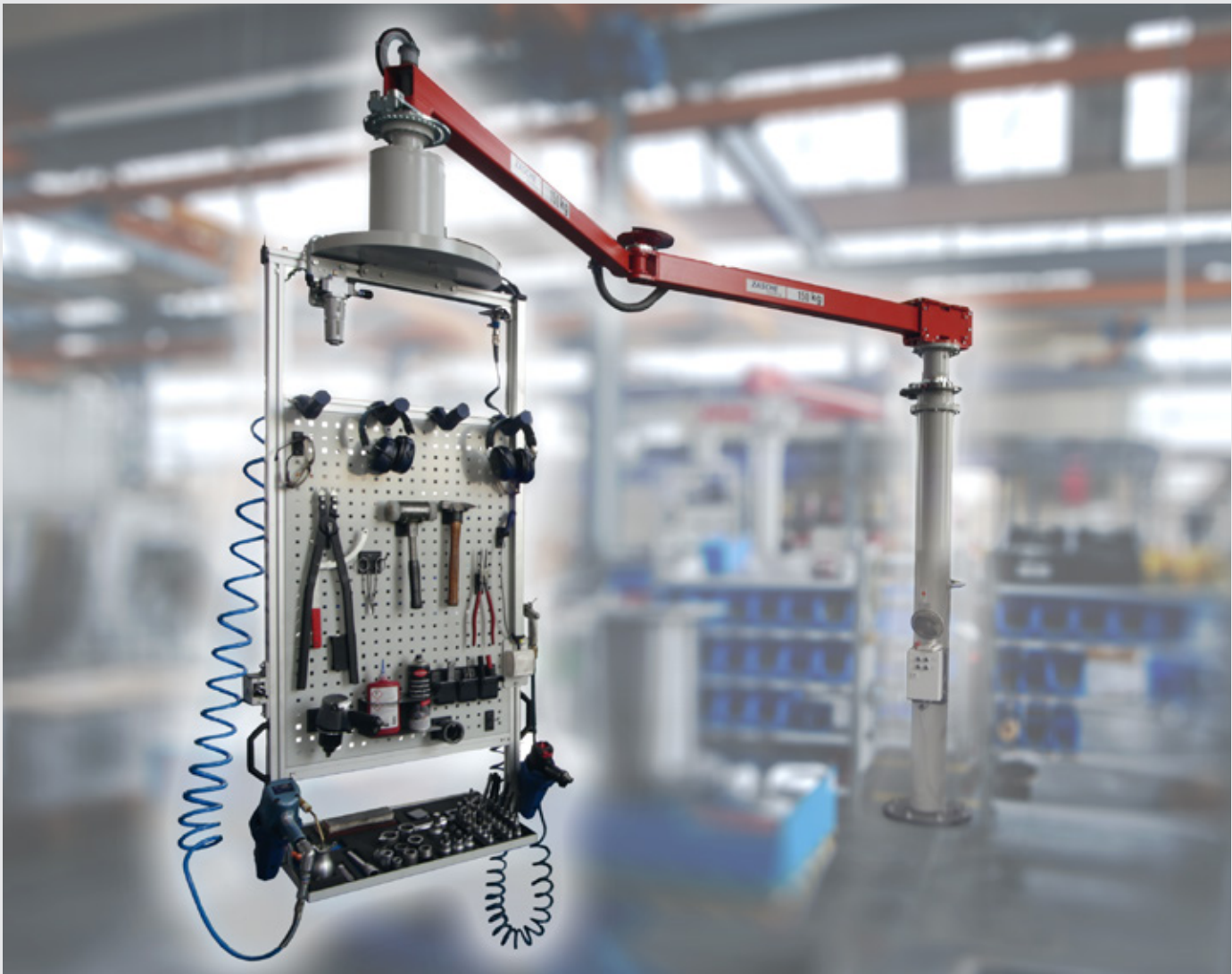
An ergonomic and efficient workplace design allows you to reduce the tool supply to a minimum. The risk of tripping that is caused by loose cables and hoses is thereby avoided and the rapid accessibility of tools, power supply, small parts and attachments as well as fixtures is guaranteed. This shortens your cycle times thanks to a reduction in travel distances.

- Design variations**
 - » floor-mounted
 - » wall-mounted, with a mounting console
- Media supply**
 - » compressed air
 - » electricity
 - » EDV
 - » nutrunner controls
 - » process monitoring
 - » Scanner
- Features / Benefits**
 - » pneumatic brakes on all pivot bearings
 - » compressed air supply incl. maintenance unit (pressure reducer, fine filter, oil separator, etc.)
 - » compatible with all common operating equipment suppliers
 - » comprehensive range of tool holders, clamps, trays, and boxes
 - » endless rotation at column and tool panel



Basic unit	Load capacity [kg]	Working radius [mm]	Slewing range [°]
Z-KM	150	4000	330

Custom designs are available upon request!



Heavy-duty articulated arm

By high loads or large working radius, we can offer you our heavy-duty articulated arm.

Where no suspension crane or standard device can be used, our device with the massive construction could be integrated.

Therefor can be fitted on the end of the jib a simple chain hoist up to a lifting axis or telescope.

Design variations

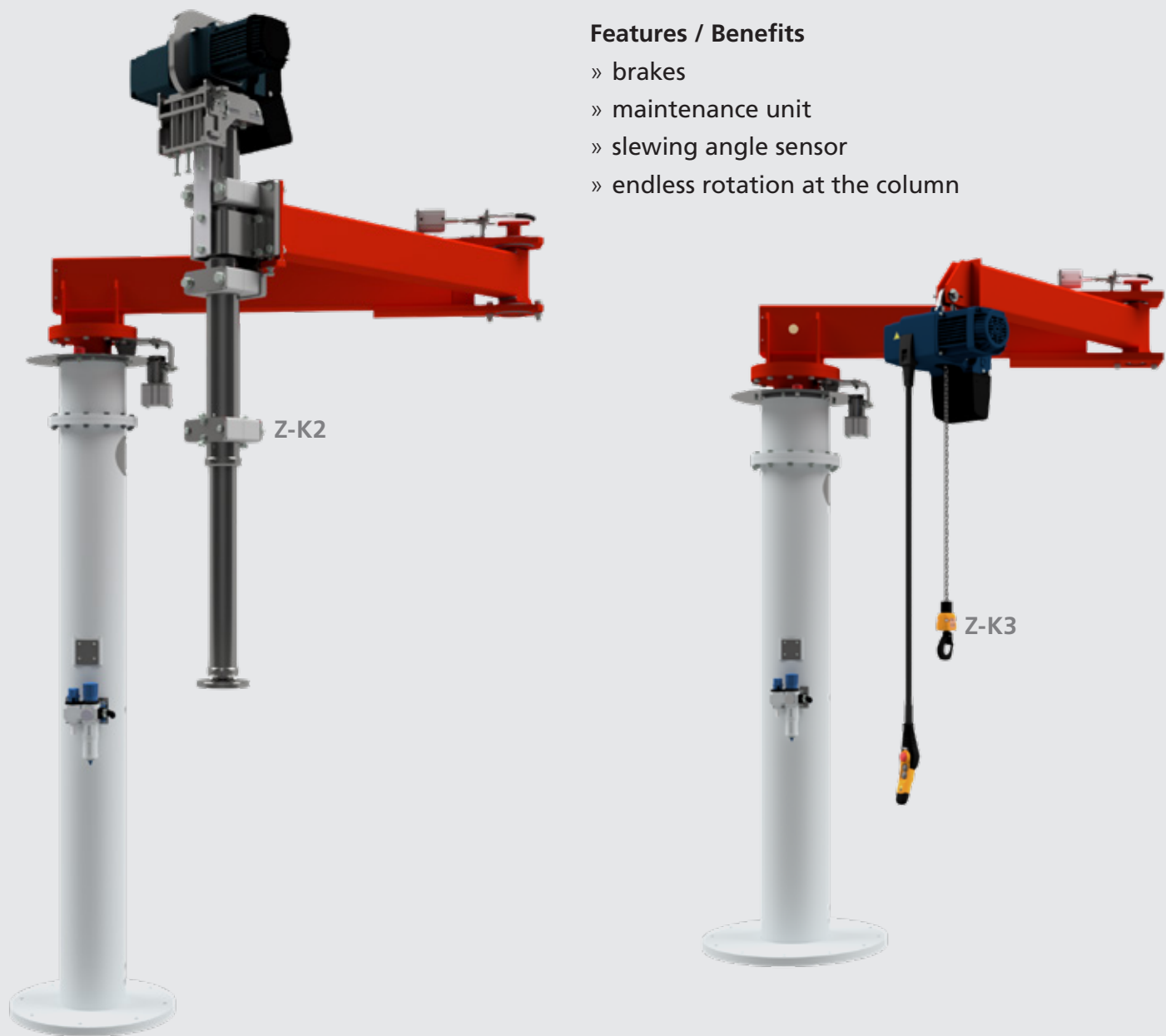
- » floor-mounted
- » ceiling-mounted stationary
- » ceiling-mounted and traversable in a suspension crane or rail system

Control options

- » one, two, or multiple load balancing
- » up/down control, with and without no-load balancing
- » intuitive hand force detection

Features / Benefits

- » brakes
- » maintenance unit
- » slewing angle sensor
- » endless rotation at the column



Basic unit	Load capacity [kg]	Working radius [mm]	Slewing range [°]
Z-K2	160	4000	330
Z-K3	400	3000	330

Custom designs are available upon request!

Steel superstructure / crane supporting structure

Light crane systems

Where required, single- or double-girder light crane systems of your choice may be combined with our components — such as manipulators and lifting equipment — to form a comprehensive modular system.



To operate suspension cranes systems or ceiling-mounted handling devices, you usually need a steel structure in order to be able to install them.

If required, we will be happy to plan and implement this for you.

For this we have in-house specialist engineers, certified welding personnel and the appropriate equipment in our production.



Slewing cranes

Wall- or floor-mounted slewing cranes may be combined with rope balancers or chain hoists to manage simple handling operations. These slewing cranes are equipped with easy-to-manuever steel or aluminum jib arms, which hold a low dead weight despite their wide-reaching range and high load capacity.

Design variations

- » floor-mounted
- » wall-mounting available with the use of a mounting console

Control options

- » one, two, or multiple load balancing control
- » up/down control, with and without no-load balancing
- » touch-sensitive handle, allowing intuitive detection of hand force
- » safety features, such as gripper safety release

Lifting gear features

- » chain hoist
- » rope balancer (electrical or pneumatical)

Features / Benefits

- » maintenance unit
- » main switch
- » slewing angle limitation



Basic unit	Load capacity [kg]	Working radius [mm]	Slewing range [°]
SSK	500	5000	270

Custom designs are available upon request!

SMART Handling

What is Smart handling?

This system combines human labor with machines in production. With the help of our SMART handling technology, for example, workers can be relieved of heavy repetitive tasks, allowing them to concentrate on the actual work.

Advantages of SMART Handling

Compared to conventional robots, our system offers:

- » Compared to conventional robots, our system offers:
- » Higher payloads up to 1000 kg
- » Travel speed up to 2 m/s
- » Significantly larger working area possible
- » Working with people instead of without
- » No safety fences required
- » Possibility of **BIG BIN picking** integration

Load handling module

The usually individual design of the gripper enables the employee to pick up the components automatically or in human-machine collaboration

Everything from a single source

As a system supplier, we can offer you the complete solution - from steel construction to the final commissioning - for your application.

Operating the SMART Handling

There are several options for this:

- » The operator can use a push-button panel to perform simple automatic actions such as start, stop and confirm
- » There is also the option of attaching a push button or sensor to the end effector itself to perform an action.
- » To make more precise settings, the system can also be operated via a tablet or PC.

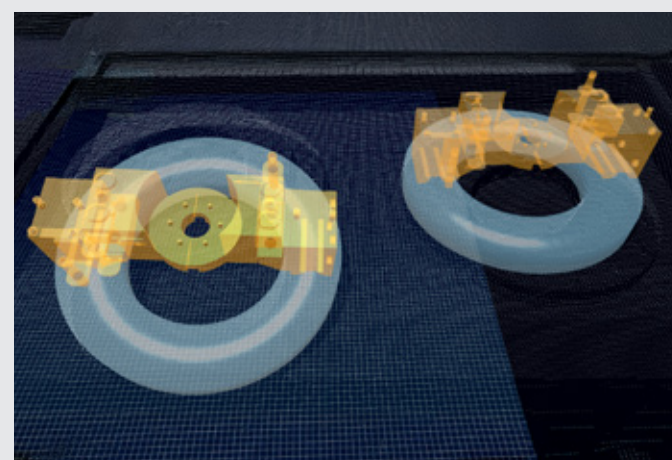
If you get stuck:

We can support you quickly and reliably with problems via remote maintenance and VPN connection.



BIG BIN Picking

In one sentence it would be: "The grip in the box". We make it possible to recognize the position of components that are lying disorderly in a box (e.g. mesh box) and to pass on the appropriate angle of contact for the gripper of the system. As a result, components can be positioned anywhere in a container.



Utilization of non-productive time through partial automation
e.g. Tailgate-Handling



Portal robot with Cobot and BIG BIN Picking
e.g. Brakedisc-Handling



Semi-automated heavy-duty device (1.5 t)
e.g. Cable reels-Handling



Complex handling in short cycle time
e.g. Rear seat-Handling

Showroom

If you have a material handling need you need help with, we welcome you to personally experience our handling devices at our showroom. Gain practical insights of the possibilities we have to offer and see how we can resolve some of your greatest handling challenges. As a special service, we also offer the option of carrying out tests with your workpieces or tools in our demonstration center, in order to jointly develop a tailor-made solution for you.



Virtual Showroom

Use our virtual showroom and dive into the world of manual handling. Discover our animated devices, starting from the simple articulated arm up to semi-automation. You can find important information at the info points or let us guide you through the showroom and advise you in a virtual meeting. We look forward to your call!



Full service – we do it for you.

Our experienced and qualified experts as well as crane experts authorized by the trade association are at your disposal for questions on technical matters, repairs, safety tests, training courses as well as spare and wear parts. On request, we can also offer you a maintenance contract. In this way you can ensure that your security check is carried out on time.

Service & Advice

Thanks to preventive, regular and predictive maintenance, danger spots can be identified and eliminated in advance. Get in touch with our service team. They will be pleased to support you!

Spare/wearing parts

We would be happy to define an individual spare parts package for you. By stocking up on wearing parts, you ensure the productivity of your device.

Safety test

The safety of your employees and the reliability of your system are our focus and are the subject of regular, legally required tests. These must be carried out at least once a year, for which you will receive appropriate proof. This not only increases the safety for your employees, but also the availability of your system.



Contact ZASCHE handling Service-Team:
phone: +49 9081 8017-0 • service@zasche.de

Training

Well-trained employees represent real added value for your company. For this, we offer specially tailored training courses for your system operators and maintenance staff.

At home worldwide

Thanks to a close network of service stations, we can offer you high-quality service and support worldwide. And of course, we also carry out tests on devices from our market competitors for you.



Smart solutions for every industry.



Printing



Automotive



Construction
Stones Ground soil



Chemicals



Electro-
mobility



Casting



Textiles



Clean room



Machine building



Logistics



Wood / Furniture



Metal
processing

ZASCHE
handling

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