

Demag KBK light crane system

Overhead transport, exact positioning, ergonomic handling



Perfect combination – Demag KBK light crane system with steel and aluminium profile sections

Track and crane installations from the KBK crane construction kit by Demag Cranes & Components have a successful track record going back many years. Countless KBK installations are in operation in companies and workshops of almost any type and size all over the world.

Characteristic for the KBK crane construction kit is the modular system that can be used to meet a wide variety of customer requirements with ease. The high flexibility of the system enables KBK installations to be integrated easily into any production infrastructure at a later date.

The KBK crane construction kit offers many possibilities for handling loads quickly, safely and efficiently above the working and production level – without the need to use any of the available floor space for crane runway supports or travel paths. Consequently, all workplaces can be arranged for maximum productivity.

If required, KBK ergo components can be used to accommodate kick-up or horizontal forces, such as those which occur on cranes with a large overhang or manipulator arms.

Besides the modular construction kit with steel profile sections, aluminium profiles are also available. KBK Aluline is the name used for a range of parts in the construction kit that can be employed to implement installations for convenient and smooth handling of loads weighing up to 1,000 kg.

Perfect combination

KBK Aluline components can be simply combined with the internationally renowned KBK steel profile sections. The connecting components are compatible. They make it possible to achieve logistics solutions



with an even lower deadweight and optimum travel characteristics – featuring state-of-the-art industrial design and an attractive benefit-to-cost ratio.

For a wide range of applications

Whether for industrial, retail or service facilities, for individual workplaces, linear transport or area-serving crane applications – KBK installations make it possible to achieve highly effective, non-accumulating transport processes to meet specific requirements. They can be built in load capacity ranges up to 3,200 kg.

Also ideal for complex material flow processes

The KBK system also meets demanding requirements for positioning accuracy and operating speeds. For this reason, it is ideally suited as a load-bearing system for complex handling systems as used in series

production lines, such as in the automotive industry.

Rugged design and flexibility

Thanks to the large number of series components, the KBK construction kit can be tailored to meet individual equipment requirements. The components also make it easy and cost-effective to extend and convert KBK installations as your business grows or when production requirements change.

Simple installation, reliable and efficient

A further typical benefit is simple and fast assembly thanks to standardised connection dimensions and plug or bolted connections. Installations are easy to commission and maintenance work can be quickly carried out.

Made of standardised products manufactured in large series, KBK components offer

- optimum benefit-to-cost ratio,
- high functional reliability,
- long service life.

Comprehensive service worldwide

We offer you comprehensive services for your KBK project:

- Consultation on site
- Project engineering including state-of-the-art IT support; design for special solutions
- Delivery, assembly and commissioning
- Demag Service to maintain the high safety, reliability and value of your installation, including compliance with all accident prevention regulations and guidelines

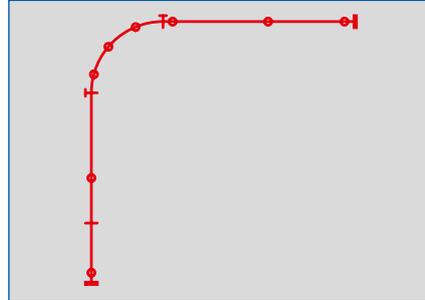
Contents

| | | | | | |
|---------------------------------|-------|---------------------------------|-------|---------------------------|-------|
| Overview | 4–7 | Stacker cranes, portal cranes | 16 | Compact hoists | 26–27 |
| Suspension monorails | 10–11 | Crane runway support structures | 17 | Control components | 28–29 |
| Single-girder suspension cranes | 12 | KBK components | 18–20 | Load handling attachments | 30–31 |
| Double-girder suspension cranes | 13 | KBK ergo components | 21 | Pillar and wall-mounted | |
| Overhung and extending cranes | 14 | KBK Aluline | 22–24 | slewing jibs and cranes | 32–33 |
| Manipulator cranes | 15 | KBK Aluline components | 25 | KBK Designer | 34 |
| | | | | Enquiry form | 35 |

Suspension monorails – for wide-ranging overhead material transportation

Suspension monorails

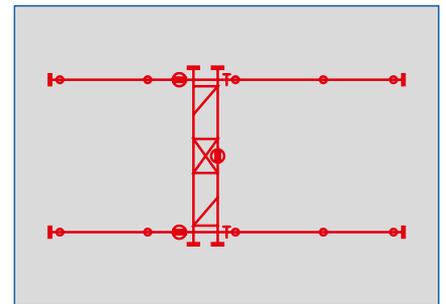
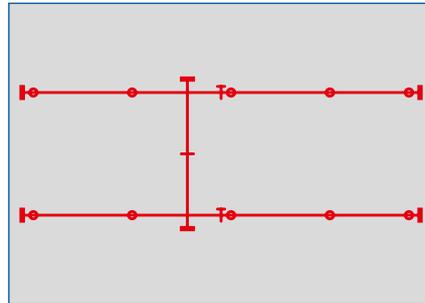
For linear handling and to provide a direct link between pick-up and deposit points in reversing operation or a closed circuit. Many designs can be implemented from simple, manually operated straight sections to complex, semi- or fully automated circuits; flexible routing is achieved using straight and curved track sections, track switches and turntables.



Suspension cranes – to link production processes

Single-girder suspension cranes

For area-serving transportation; minimum approach dimensions, low deadweight; easily moved by hand. Articulated connections between the crane girder and end carriages for smooth operation; cranes can even operate on tracks that are not parallel.



Double-girder suspension cranes

For handling heavier loads and bridging greater spans; favourable installation dimensions, also as **manipulator cranes**, optimum design for use in state-of-the-art handling systems. Maximum possible hook paths are achieved by arranging the hoist between the crane girders; large spans can be bridged by cranes running on more than two runways.



Overhung and extending cranes – with a large overhang for extended overhead handling



Overhung bridge cranes

Crane girders that have an overhang extending up to 2.5 m beyond the runway span.

Extending cranes

Variable working area: crane girder fitted with an intermediate girder that can be extended by up to 2.5 m on one or both sides. Optimum design for serving areas added at a later date or featuring ventilation pipes, radiant heaters, cables and similar items, or areas otherwise inaccessible due to columns or supports.



Slewing jib cranes – workplace cranes integrated into the material flow



Pillar-mounted jib cranes

Simple traversing of the jib at any load position thanks to their low deadweight. Free-standing workplace cranes at almost any location; wide operating radius.

Wall-mounted jib cranes

Workplace cranes mounted on walls, columns or machinery; also as tool tracks for handling test equipment, tools, etc. as well as cable or hose suspension tracks.

Stacker cranes and portal cranes – ideal workplace units



Portal cranes

Ideal for repair and assembly work. Travelling on the floor, not rail-bound; good manoeuvrability; easily dismantled and re-erected.

Stacker cranes

For storing and retrieving unit loads, containers or pallets. Double-girder suspension cranes with special rotating stacker trolleys. Easily moved and turned by hand.

Demag KBK light crane system –
all possible types and designs at a glance





Suspension monorails – the right solution for linear transport

Suspension monorails from the KBK construction kit are the optimum solution for linear, overhead handling.

Highly adaptable

A wide range of components makes it possible to adapt the route precisely to meet the structural requirements of your workshop. At the same time, the system ensures that all specific product and workplace requirements of your production facility are met.

KBK suspension monorails can be built to almost any design: from simple, manually controlled straight sections to complex, semi- or fully automated closed-circuit monorail systems. Transfer between suspension monorails and adjacent suspension cranes is also possible using latching devices.

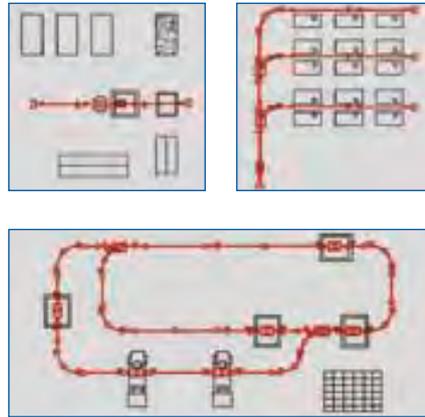
Ideal equipment carriers

For practical handling requirements, the special profiles of the KBK system are particularly suitable for applications such as tracks for load balancers fitted with test equipment and electric and pneumatic tools, etc., and power supply lines for cranes and other mobile equipment.



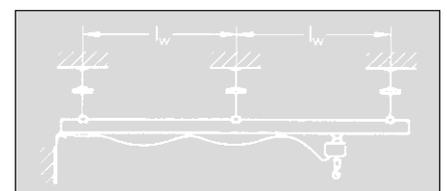
36147

Cable trolleys can also be used to suspend hoses for transporting fluids or gases.



Profile selection: maximum distances between supports, headroom dimensions

| KBK profile | Adjustable headroom dim. (mm) | Distance between supports for suspension monorail l_w (m) | Load capacity (kg) | | | | | | | |
|-------------|-------------------------------|---|--------------------|-----|-----|-----|------|------|------|--|
| | | | 80 | 125 | 250 | 500 | 1000 | 1600 | 2000 | |
| 100 | 220 | | 3.0 | 2.4 | | | | | | |
| I | 250 | | 5.0 | 4.1 | 2.5 | | | | | |
| II-L | 370 | | | 7.0 | 5.8 | 3.5 | | | | |
| II | 400 | | | | 8.0 | 5.4 | 3.2 | | | |
| III | 446 | | | | | 8.0 | 5.7 | 4.1 | 3.4 | |



Single-girder suspension cranes – favourable dimensions, low deadweight

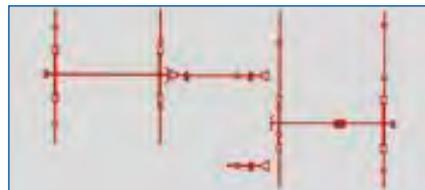
Single-girder suspension cranes are used for fast and safe area-serving overhead handling and exact positioning of a wide variety of goods.

Simple and cost-effective

KBK single-girder suspension cranes can be simply suspended from the building roof or superstructure. Additional supports for the crane runway are not necessary. Even partial areas of a workshop may be easily fitted with suspension cranes at low cost.

Smooth and reliable handling

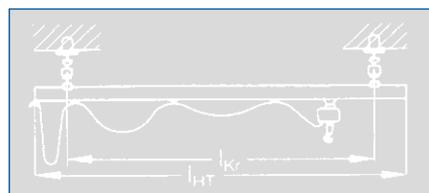
Thanks to their low deadweight and smooth-running trolleys, the cranes can be easily moved by hand. Therefore, they ensure that heavy and awkward workpieces can also be handled safely and reliably.



The benefits of KBK single-girder suspension cranes also include latching devices that allow direct transfer of the hoist trolley between the crane and suspension monorails.



Articulated connections ensure that the crane girder cannot snag. Single-girder cranes can also travel on angled or converging crane runways.



Profile selection: maximum distances between supports, crane spans, girder lengths

| KBK profile | | Load capacity (kg) | | | | | | |
|-------------|------------------------|--------------------|-----|------|-----|------|------|------|
| | | 80 | 125 | 250 | 500 | 1000 | 1600 | 2000 |
| 100 | Crane span I_{kr} | 2.85 | 2.6 | | | | | |
| | Girder length I_{HT} | 3.0 | 3.0 | | | | | |
| I | Crane span I_{kr} | 4.65 | 4.6 | 2.75 | | | | |
| | Girder length I_{HT} | 6.0 | 5.0 | 3.0 | | | | |
| II-L | Crane span I_{kr} | | 7.0 | 6.1 | 3.7 | | | |
| | Girder length I_{HT} | | 8.0 | 7.0 | 4.0 | | | |
| II | Crane span I_{kr} | | | 7.45 | 5.9 | 3.5 | | |
| | Girder length I_{HT} | | | 8.0 | 7.0 | 4.0 | | |
| III | Crane span I_{kr} | | | | 8.4 | 6.3 | 4.3 | 3.6 |
| | Girder length I_{HT} | | | | 9.0 | 7.0 | 5.0 | 4.0 |

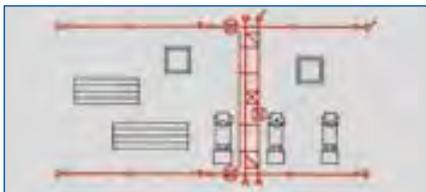
Double-girder suspension cranes – Large lifting heights, spans and high load capacities



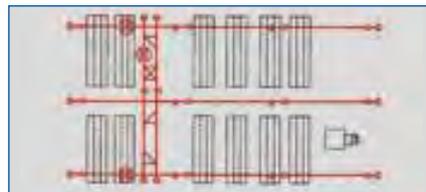
KBK double-girder suspension cranes also feature a low deadweight and favourable structural dimensions. In addition, the pendulating suspension largely absorbs the horizontal forces caused by starting, braking and stopping. They can even be installed in buildings of light steel construction.

Optimum lifting heights

Arrangement of the hoist unit between the two crane girders provides KBK double-girder cranes with a greater useful lifting height.



Power supply cable trolleys travel in the KBK runway or crane girder sections. If required, the control pendant can also travel independently of the hoist when fitted to a separate travel rail.



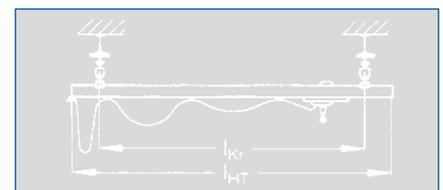
Cranes operating on several runways provide larger spans to cover extensive storage and production areas.

Large working areas

KBK double-girder cranes provide maximum span dimensions to cover extensive storage and production areas, since they can also operate on several runways.

Profile selection: maximum distances between supports, crane spans, girder lengths

| KBK profile | | Load capacity (kg) | | | | | | | |
|-------------|------------------------|--------------------|-----|------|------|------|------|------|------|
| | | 80 | 125 | 250 | 500 | 1000 | 1600 | 2000 | 3200 |
| 100 | Crane span l_{kr} | 4.4 | 3.8 | | | | | | |
| | Girder length l_{HT} | 5.0 | 5.0 | | | | | | |
| I | Crane span l_{kr} | | 6.2 | 5.0 | 3.1 | | | | |
| | Girder length l_{HT} | | 9.0 | 6.0 | 4.0 | | | | |
| II-L | Crane span l_{kr} | | | 7.6 | 6.5 | 4.3 | | | |
| | Girder length l_{HT} | | | 10.0 | 7.0 | 5.0 | | | |
| II | Crane span l_{kr} | | | | 8.8 | 6.1 | 4.6 | 3.6 | |
| | Girder length l_{HT} | | | | 11.0 | 7.0 | 5.0 | 4.0 | |
| III | Crane span l_{kr} | | | | | 9.1 | 7.4 | 6.3 | 4.2 |
| | Girder length l_{HT} | | | | | 14.0 | 9.0 | 7.0 | 5.0 |

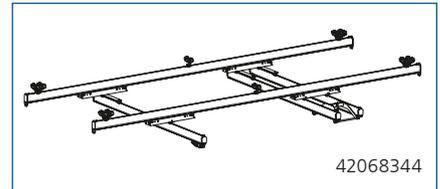


Overhung and extending cranes – large overhang, constant or variable

KBK cranes make it possible to move loads also outside the crane runway.

Overhung bridge cranes

For efficient utilisation of the available space, KBK ergo overhung cranes are fitted with crane girders that extend up to 2.5 m beyond the crane span. This enables bays to be reached that are added at a later date, for example.



42068344

Maximum permissible overhang dimensions*

*depending on profile and extension type; also dependent on the load.

| | I _{A1} | | |
|---------------------|-----------------|----------|--------|
| | KBK I | KBK II-L | KBK II |
| Single-girder crane | – | 1.5 m | 1.8 m |
| Double-girder crane | 1.6 m | 2.3 m | 2.5 m |



70246

Overhung cranes can also handle loads below ducts, radiant heaters, pipes or similar obstacles between the wall and roof which result in the crane runway having to be positioned at a distance to the wall.

Extending cranes

KBK ergo extending cranes feature additional girders that are arranged between or beneath the crane girders.

Depending on the design, they can be extended to one or both sides beyond the width of the crane runway. These cranes can also be used for precisely lifting and positioning loads in almost inaccessible areas, such as between pillars and columns.

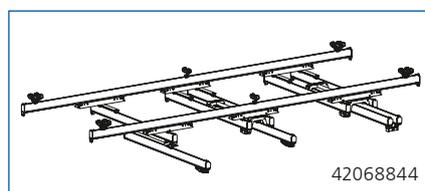
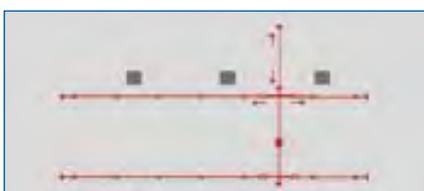


37701-2

Maximum permissible overhang dimensions*

*depending on profile and extension type; also dependent on the load.

| | I _{A1max} | |
|------|--------------------|--------|
| | KBK II-L | KBK II |
| A1/1 | 1.5 m | 1.8 m |
| B2/1 | 1.5 m | 2.0 m |
| B2/2 | 2.3 m | 2.5 m |

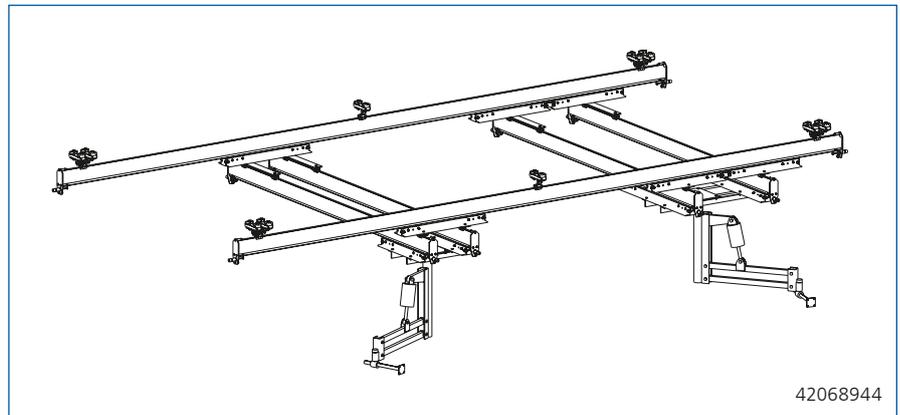


42068844

Manipulator cranes – optimum ergonomic load handling

Double-girder suspension cranes can also be designed as manipulator cranes using KBK ergo components. They can be designed to meet the exact needs of the relevant loads, processes and production conditions. They make it possible to

- move workpieces and sub-assemblies into the most favourable positions for the relevant process,
- serve workplaces, machinery and installations from any direction,
- perform operations outside the suspension area, thus increasing the operating range.



Innovative and ready to meet tomorrow's needs

Manipulator cranes are built using selected KBK ergo components. They feature the ability to accommodate kick-up forces.

In addition, they offer outstanding positioning accuracy, together with high operating speeds. In this way, handling operations can be optimised in line with ergonomic requirements for maximum efficiency.

Fast upgrade

If you already have double-girder suspension cranes from the KBK crane construction kit, they can be quickly and easily modified with KBK ergo components to become manipulator cranes.

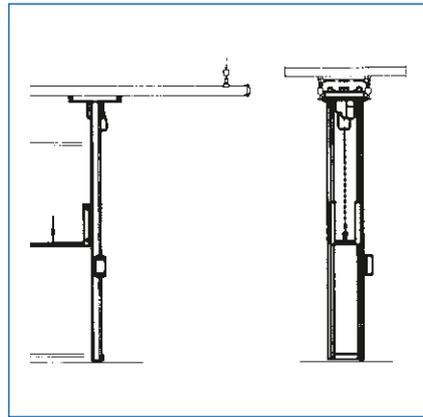
Stacker cranes, portal cranes – specialised handling equipment for warehouses and factories

Stacker cranes

Stacker cranes make it possible to complete all tasks in one operating cycle without the need for ladders, order picking trolleys or similar equipment.

They mainly consist of a KBK double-girder suspension crane and a special stacker trolley. And they are used wherever unit loads, containers or pallets weighing up to 500 kg have to be transported, sorted and stored.

The stacker crab can be fitted with forks, prongs, gripper tongs or other load handling attachments in accord-



ance with the specific load handling requirements. The mast with its trolley is easily moved by hand and can rotate through 360°.

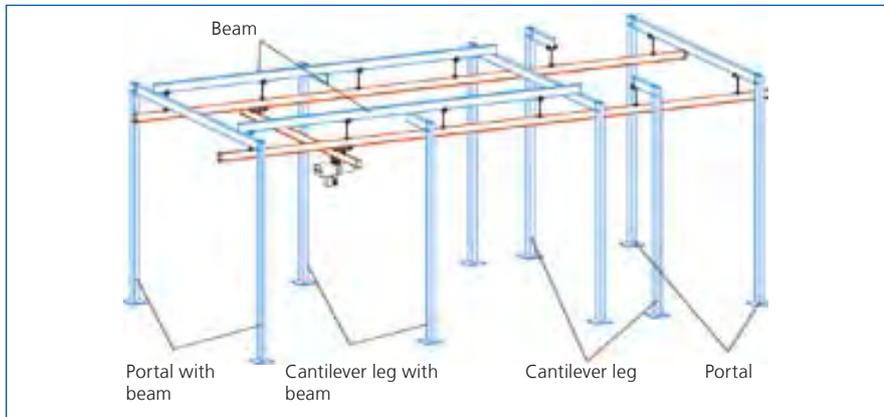


Portal cranes

Portal cranes with load capacities up to 1,000 kg can be used wherever a suspension crane is not cost-effective or cannot be installed. They run on solid, even surfaces and can be manoeuvred easily in all directions, making them ideal for repair and assembly work.

A particular advantage in many applications is that KBK portal cranes can be easily dismantled, transported and quickly re-erected elsewhere. The crane girder span can also be adjusted.

Crane runway support structures – tailor-made solutions



KBK installations can even be built in facilities where the workshop ceiling and roof structures cannot bear loads. Support structures tailored to meet your needs can be built quickly and efficiently using a range of standardised steel superstructure components. The required crane runways or suspension monorails can be attached direct to the supports or beams.

| Design | KBK suspension | Section |
|--------------------------|----------------|---|
| Cantilever leg | direct | HE-A (leg), IPE (cantilever arm) |
| Cantilever leg with beam | on the beam | HE-A (leg), HE-A (cantilever arm), IPE (beam) |
| Portal | direct | HE-A (leg), IPE (crossbar) |
| Portal with beam | on the beam | IPE (leg), IPE/HE-A (crossbar), IPE (beam) |

All supports are supplied with foot plates that are dimensioned according to the design. They can be secured to the floor using foundations featuring anchor rods or by means of anchor bolts.



As an alternative to conventional steelwork, the Hilti MI rail system can be used to create a support superstructure for installations with a load capacity up to 500 kg. This system is also of modular design, can be adapted to meet your specific needs and is also easy to assemble.

KBK steel components and assemblies – Demag KBK light crane system

Profile sections

The basic elements are special cold-rolled steel track sections available in five different sizes:

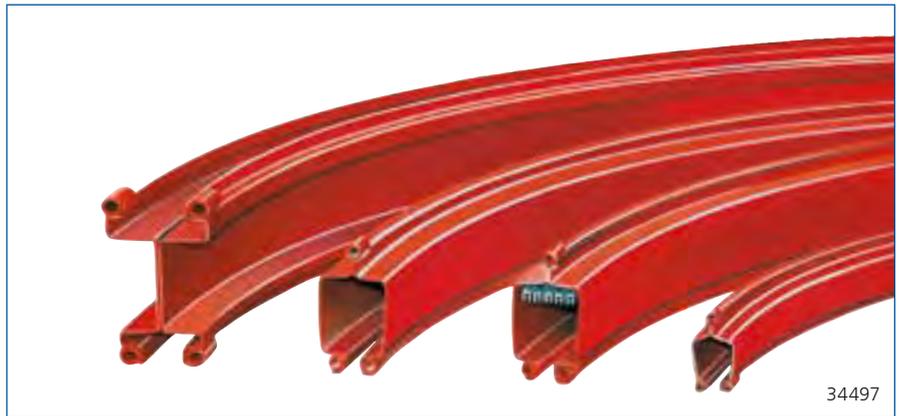
- KBK 100 Load capacity up to 125 kg
- KBK I Load capacity up to 500 kg
- KBK II-L Load capacity up to 1,000 kg

- KBK II Load capacity up to 2,000 kg
- KBK II-R KBK II with internal 5-pole power supply
- KBK II-T reinforced KBK II profile section, for single and double-girder suspension cranes
- KBK III Load capacity up to 3,200 kg

For each size, all standardised components and assemblies, such as straight and curved track sections, track switches, turntables, drop sections, etc., have the same uniform joint dimensions. Self-centring plug-in and bolted connections allow them to be easily assembled in any combination.



24465



34497

Suspensions

To prevent bending stresses and to minimise horizontal forces in the superstructure, KBK track sections are suspended so as to allow pendulation.

Plastic shells in the ball joints reduce impacts and noise. They also reduce maintenance to a minimum. The track height can be easily and precisely adjusted by means of the threaded suspension rods that connect the ball joint heads.

Straight and curved sections

Profile sections for loads weighing up to 2,000 kg are hollow track sections with protected inside running surfaces.

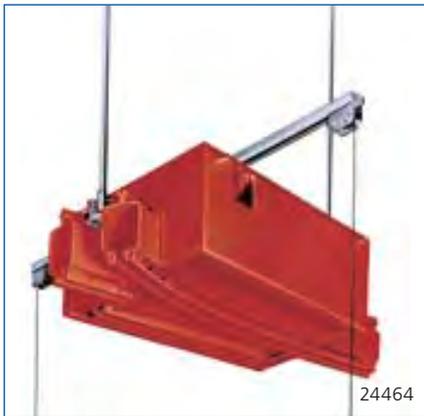
The KBK III profile of outside-running design is available for loads weighing up to 3,200 kg. KBK II and KBK III profile sections can also be supplied with integrated conductor lines.



Different profile section sizes can be used for single and double-girder suspension crane runways and girders. All components are protected against corrosion – they are either finished with a coat of paint, galvanised or coated with KTL.



29463



24464

Track switches

Of compact, enclosed design, track switches are branching or converging components in the material flow. They can be supplied for manual, electric or pneumatic switching for semi- or fully automatic control.



24463

Turntables

Turntables make it possible to change direction in a minimum of space. Integrated mechanical locking devices prevent trolleys from leaving or entering the turntable section while it is turning. Turntables can be manually or electrically operated.



39091

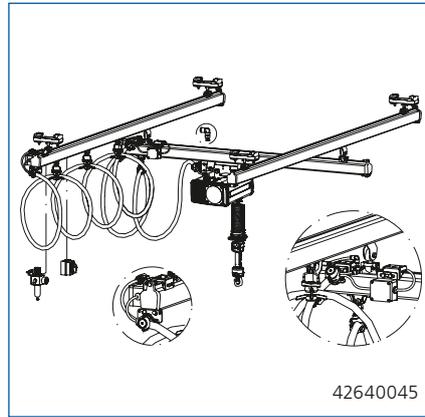
Push travel trolleys

Fitted with bearing-mounted plastic wheels, push travel trolleys are easy to move. The rollers are maintenance-free and designed for a long service life. They effectively absorb all impacts and are silent-running.





39208-1



42640045



24736

Friction wheel travel drives

Friction wheel travel drives with large friction wheels and a high friction coefficient ensure that the drive forces are transmitted efficiently. Springs provide constant pressure between the drive wheels and the running surface of the track. Therefore, the connection between the friction wheel and the track does not depend on the position and weight of the suspended load. At the same time, friction wheel travel drives are quiet in operation.

Various drives are available depending on the load to be moved and the required travel speed. In addition, variable-speed travel drives and a pneumatic drive can be supplied to support the movement of handling devices.

Power supply

Flat cables are preferably used to supply power. With more than two cranes on a runway or more than two travelling hoists on a suspension monorail and in the case of track systems with switches, turntables, latching devices or drop sections, power is supplied via conductor lines: with 5 internal conductors for KBK II-R track sections, with up to 10 individual conductor lines for KBK III track sections. All power supply lines are robust and require little maintenance.

Compressed air or electric power and compressed air are frequently required for the operation of modern handling equipment. They can be supplied by means of a particularly smooth-running trailing helical cable system.

Drop sections

Drop sections are mainly used in closed-circuit tracks to pick up and deposit loads at predetermined positions. This eliminates the need for hoist units. When lowered in the drop section, the trolley is mechanically locked in place. Mechanical locks in the track stop other trolleys on either side of the drop section.

Latching device

Latching devices make it possible to connect single-girder suspension cranes and suspension monorails so that the hoist trolley can transfer between them. When disengaged, the crane travels past the end of the monorail without any mechanical contact.



24205

KBK ergo components – Demag KBK light crane system

KBK ergo components can be used to build cranes that have to accommodate kick-up forces. This may be the case for overhung, extending and manipulator cranes.



Travel units

KBK ergo trolleys feature articulated axles and correspondingly dimensioned rollers for lateral guidance. They reliably absorb any upward and lateral forces and moments.

Suspensions

Fitted with integrated damping elements, KBK ergo suspensions absorb energy from various directions.



End carriages

End carriages provide improved rigidity and increased positioning accuracy.



End caps

Special shock absorbers are required on rigid systems with uncompensated loads. Shock absorbers integrated in the end caps dissipate the energy transmitted by the loads to all components and assemblies as well as the support superstructure.



Crab frame

The specially developed crab frame is a rugged, high load bearing system for mounting specially equipped hoists and manipulators.



KBK Aluline – simple ergonomic handling

KBK Aluline can be used to construct both single and double-girder suspension cranes for area-serving transport requirements as well as straight suspension monorail systems for straight connections between workplaces. Standard lengths are suspended from articulated fittings.

KBK ergo components are used for overhung and manipulator cranes.

Perfect combination

Compatibility throughout the KBK system permits a large number of possible combinations of steel and aluminium profile sections within an

installation. All suspension components and trolleys of the KBK Aluline range are based on components employed for the Demag KBK steel profile sections, which are successfully used in thousands of installations all over the world.



38450-8



39034-3



38450-10

Outstanding benefits of KBK

Aluline:

- technically advanced system that is easy to assemble
- compact design and low dead-weight
- can be integrated and extended to provide versatile solutions
- optimum combinations with steel profiles
- state-of-the-art industrial design thanks to anodized aluminium profile surfaces



Smooth and reliable handling

Thanks to their low deadweight and smooth-running trolleys, the cranes can be easily moved by hand. This ensures that heavy and awkward workpieces can also be handled safely and reliably.

KBK Aluline suspension cranes can be simply suspended from the building roof or superstructure. Additional supports for the crane runway are

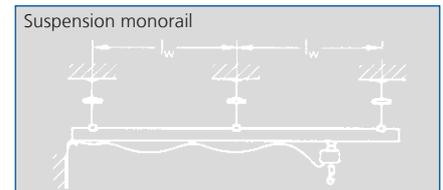
then not needed. In this way, sections of a factory building can also be served by cranes.

Single-girder cranes, manual travel for smaller loads, double-girder cranes for larger loads and spans; electric or pneumatic travel drives can be fitted.

Compared to single-girder cranes, **double-girder cranes** have more favourable installation dimensions and provide maximum possible hook paths thanks to the arrangement of the hoist between the crane girders. In combination with KBK Aluline ergo components, they are also ideally suited as **manipulator cranes** for the use of state-of-the-art handling systems.

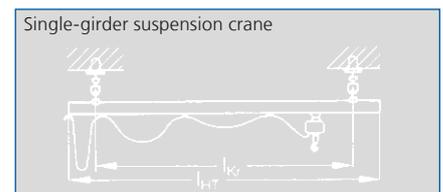
Suspension monorail

| Section | Hoist load G_H (kg) | | | | |
|-----------------------|-----------------------|-----|-----|-----|------|
| | 80 | 125 | 250 | 500 | 1000 |
| Aluline 120 l_w (m) | 5.1 | 4.2 | 3.1 | 2.0 | |
| Aluline 180 l_w (m) | | 8.0 | 6.5 | 4.6 | 2.8 |



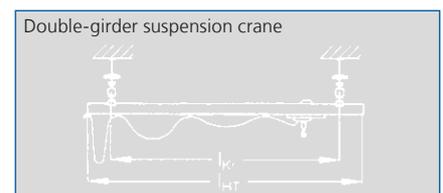
Single-girder suspension crane

| Section | | Hoist load G_H (kg) | | | | |
|-------------|--------------|-----------------------|-----|-----|-----|------|
| | | 80 | 125 | 250 | 500 | 1000 |
| Aluline 120 | l_{kr} (m) | 4.8 | 3.9 | 2.9 | | |
| | l_{HT} (m) | 5.0 | 4.0 | 3.0 | | |
| Aluline 180 | l_{kr} (m) | 7.9 | 7.9 | 6.3 | 4.5 | 2.9 |
| | l_{HT} (m) | 8.0 | 8.0 | 7.0 | 5.0 | 3.0 |



Double-girder suspension crane

| Section | | Hoist load G_H (kg) | | | | |
|-------------|--------------|-----------------------|-----|-----|-----|------|
| | | 80 | 125 | 250 | 500 | 1000 |
| Aluline 120 | l_{kr} (m) | | 5.5 | 4.2 | 3.1 | |
| | l_{HT} (m) | | 7.0 | 5.0 | 4.0 | |
| Aluline 180 | l_{kr} (m) | | | 7.9 | 6.3 | 4.6 |
| | l_{HT} (m) | | | 8.0 | 8.0 | 5.0 |



l_w = Spacing between track supports

l_{kr} = Crane span dimension

l_{HT} = Crane girder length

KBK Aluline components – Demag KBK light crane system

Simple and reliable assembly

The KBK Aluline crane construction kit enables you to design almost any overhead suspension crane or mono-rail system. The track sections, which measure up to eight metres in length, are simply and reliably connected. They can also be assembled quickly and precisely by hand as a do-it-yourself kit.



Profile sections

The basic element is a profile section rail that is available in two sizes. The unique matt silver look of anodized aluminium gives KBK Aluline an almost weightless appearance. Cavities in the upper and lower parts of the track sections ensure great mechanical rigidity. Slots along the track sections make it easy to mount attachments.



Trolleys

The trolleys run smoothly and quietly on plastic travel wheels mounted in anti-friction bearings that are lubricated for life. KBK trolleys feature an articulated, torque-free pin connection. KBK ergo trolleys can also accommodate kick-up forces.



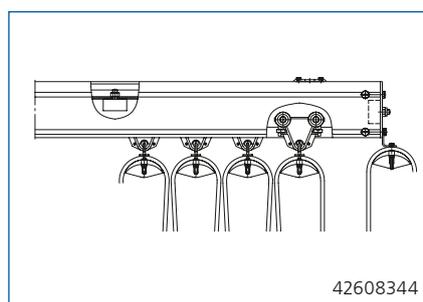
Joint connections

Matching interface dimensions and precise bolted connections enable KBK Aluline profile sections to be connected quickly and easily.



Suspensions

Standard systems are fitted with KBK suspensions. Equipped with articulated joints, they provide a low-torque connection to the support superstructure. Special systems designed to accommodate offset loads are fitted with KBK ergo suspensions.



Power supply

Highly flexible and cold-resistant flat cables are individually suspended from cable sliders or cable trolleys in groups.

Demag compact hoist units – as chain hoists, rope winches or balancers

Demag compact hoist units offer a wide variety of load capacities, speeds and features for maximum safety and reliability. They can be used to meet individual application requirements in industry, workshops and the trade sector. Compact hoists are supplemented by a wide range of load handling attachments for every application.



DCM-Pro/DCMS-Pro

The **Demag DC-Pro chain hoist** is available in two versions for loads weighing up to 5,000 kg: as the DC-Pro with a DSC control pendant switch and as the **Demag DCM-Pro Manulift** for quickly handling loads with only one hand. Both versions feature a wide range of integrated standards, offer outstanding ease of operation and maintenance as well as high standards of safety and optimum efficiency.

Thanks to the infinitely variable speed control of the **Demag DCS-Pro chain hoist**, sensitive parts can be lifted, lowered and positioned more gently and carefully.

Hoist motions can be performed much more quickly thanks to the higher lifting speed in the partial load range due to their Pro-Hub function.

The variable speed type is also available as the **DCMS-Pro Manulift** for single-handed operation.

The **Demag DC-Com chain hoist** is an inexpensive, high-quality entry-level variant with basic features, just right for everyday use for loads weighing up to 2,000 kg.



38988-2

The **SpeedHoist rope winch** is specially developed for fast handling applications with loads weighing up to 160 kg. This makes them ideal for fast transfer sequences in series production or in order-picking operations, for example.



39285-1

The D-Grip and rocker switch control handles facilitate precise, extremely light and fatigue-free control. The operator's hand motions are translated into exact lifting movements at infinitely variable speeds.

The **D-BP pneumatic rope balancer** can be used for weightless positioning and handling of loads. Load capacities range up to 110 kg. Various controls are available to ensure the unit meets the specific requirements of the given handling application:

- Up/down control with DSK control pendant or Manulift control element
- Balancer controls for constant loads
- Manual force control for intuitive operation

Here, too, various load handling attachments can be connected using the proven quick-change coupling.



38995-5

38997-3

Demag components – for manual and automatic controls

Installations made from the Demag KBK crane construction kit can either be fitted with manual controls or semi- or fully automatic control systems. All components correspond to the latest design and accident prevention regulations and meet the requirements of international rules and regulations.



DSK, DST and DSE control pendants

The ergonomic design and sloping housing facilitate fatigue-free operation and permit operators to work in a natural and comfortable position.

DST and DSE control pendant switches offer a wide variety of switch combinations for hoists, crabs and cranes. They can also be used to control machinery and installations.



DRC-MP radio control

For wireless control of KBK installations as well as other cranes, hoists, industrial doors, machinery or installations. Suitable for a maximum of three motion axes.

- Optional pushbutton or joystick transmitter units
- Impact and temperature-resistant housing design
- Reliable data transmission



Dematik IR infrared remote control

For wireless control of KBK installations as well as other facilities or machinery. Available in three sizes.

- Ergonomic transmitter enclosure with carrier
- Range limited to approx. 40 m
- Simple upgrade



Frequency inverters

Frequency inverters that can be adapted to specific operating sequences make it possible to implement infinitely variable speed control of drives, for example.

Integrated electrics

Arranged directly on the units to be controlled and featuring plug-and-socket connectors, integrated electrics guarantee fast and easy connection of control units and cables. Integrated electrics are also subjected to punishing long-term shock and vibration resistance tests as well as function tests at varying temperatures and under various climatic conditions.

PLC programmable logic control automation systems

These systems make it possible to implement optimum solutions with maximum efficiency for any materials handling automation requirements. Based on compact modules, existing control systems can be extended at any time. Operating sequences can also be visualised.

Load detectors

Optional electronic load detectors on hoist units provide overload protection for maximum safety and efficient utilisation. Additional load summation and digital load displays can be added.

Pulse generators

Pulse generators integrated into electric motors provide countable signals to measure speed and rotation in both directions. The units can be automated.

Demag load handling attachments – versatile and efficient



Mechanical load handling attachments

Grippers, load pins, load forks, load hooks and tongs are mainly employed as mechanical load handling attachments. They are primarily combined with versatile hoist units, e.g. Manu-lift or rope balancer units.

They are connected by means of a quick-change coupling. The load handling attachments are fitted with a connecting pin with a swivel lock, which snaps into the quick-change coupling.



Gripping devices as well as tongs are usually based on a scissor mechanism. Fitted with a variety of jaws, PGS parallel grippers can be used for many applications, e.g. for handling shafts, containers or bins.

Load handling magnets

The range of load handling magnets includes:

- DPMN compact permanent magnets, suitable for flat and round materials, operation independent of the mains
- DBM 34/68 rectangular battery magnets, operation independent of the mains
- R15–30 electro-magnets, round single magnets with outstanding power, with integrated rectifier and switch as standard



Vacuum load handling attachments

Vacuum load handling attachments can be operated by compressed air via injectors and electric vacuum pumps or fans. The latter operate with comparatively low underpressure, however, high volume flows and are particularly suitable for handling air-permeable workpieces such as textiles and cartons, for example.

Available options include: devices for supplying compressed air to suction pads for rapid load deposit, and safety circuits and underpressure reservoirs to maintain the suction energy in the event of a power failure.

Demag pillar and wall-mounted slewing jibs and cranes – efficient workplace units

Pillar and wall-mounted jib cranes help to cut setting-up and idle times and reduce unnecessary waiting times. With a wide range of sizes and designs, these cranes can be adapted to provide the optimum solution for the most varied requirements in terms of load capacity, slewing range, outreach and features – even including cranes with two jibs.

The main characteristic of all variants is the low jib deadweight and correspondingly large outreach and high load capacity. Demag jib cranes are normally supplied complete with the electrical equipment and hoist including the corresponding trolley, however, also without these components, if required. Special hook path dimensions can be achieved by

means of longer masts or pedestals. Parts are also available to anchor the mast to foundations or existing workshop floors.

Pillar-mounted slewing jibs

Slewing range 270°/300°

| SWL (kg) | Outreach (m)* | | | | | | | | | |
|----------|---------------|---|---|---|---|---|---|---|----|--|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| 80 | | | | | | | | | | |
| 125 | | | | | | | | | | |
| 250 | | | | | | | | | | |
| 500 | | | | | | | | | | |
| 1,000 | | | | | | | | | | |
| 1,600 | | | | | | | | | | |
| 2,000 | | | | | | | | | | |

Pillar-mounted slewing cranes

Slewing range n x 360°

| SWL (kg) | Outreach (m)* | | | | | | | | | | | |
|----------|---------------|---|---|---|---|---|---|---|----|----|----|--|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| 80 | | | | | | | | | | | | |
| 125 | | | | | | | | | | | | |
| 250 | | | | | | | | | | | | |
| 500 | | | | | | | | | | | | |
| 1,000 | | | | | | | | | | | | |
| 1,600 | | | | | | | | | | | | |
| 2,000 | | | | | | | | | | | | |
| 2,500 | | | | | | | | | | | | |
| 3,200 | | | | | | | | | | | | |
| 4,000 | | | | | | | | | | | | |
| 5,000 | | | | | | | | | | | | |
| 6,300 | | | | | | | | | | | | |
| 8,000 | | | | | | | | | | | | |
| 10,000 | | | | | | | | | | | | |

Wall-mounted jib cranes

Slewing range 180°/270°

| SWL (kg) | Outreach (m)* | | | | | | | | | | | |
|----------|---------------|---|---|---|---|---|---|---|----|----|----|--|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| 80 | | | | | | | | | | | | |
| 125 | | | | | | | | | | | | |
| 250 | | | | | | | | | | | | |
| 500 | | | | | | | | | | | | |
| 1,000 | | | | | | | | | | | | |
| 1,600 | | | | | | | | | | | | |
| 2,000 | | | | | | | | | | | | |
| 2,500 | | | | | | | | | | | | |
| 3,200 | | | | | | | | | | | | |
| 4,000 | | | | | | | | | | | | |
| 5,000 | | | | | | | | | | | | |
| 6,300 | | | | | | | | | | | | |
| 8,000 | | | | | | | | | | | | |
| 10,000 | | | | | | | | | | | | |

- Type KBK 100 – slewing range = 270°. Specification to H2B3. See technical data sheet 203 565 44.
- Type KBK I/II – slewing range = 300°. Specification to H2B3. See technical data sheet 203 565 44.
- Type D-AS 270 – slewing range = 270°. Specification to H2B2. See technical data sheet 203 502 44.

- Type D-GS 360 – Manual slewing. Specification to H2B2. See technical data sheet 203 502 44.
- Type D-TS 360 – Manual slewing or with electric slewing drive. Specification to H2B2. See technical data sheet 203 502 44.
- Type D-MS 360 – Manual slewing or with electric slewing drive. Specification to H2B3. See technical data sheet 203 502 44.

- Type KBK 100 – Manual slewing. Slewing range = 270°. Specification to H2B3. See technical data sheet 203 565 44.
- Type KBK I/II – Manual slewing. Slewing range = 270°. Specification to H2B3. See technical data sheet 203 565 44.
- Type D-AW 180 – Manual slewing. Slewing range = 180°. Specification to H2B2. See technical data sheet 203 502 44.
- Type D-GW 180 – Manual slewing or with electric slewing drive. Slewing range = 180°. Specification to H2B2. See technical data sheet 203 502 44.

* Intermediate lengths possible



39043-1



39342-1



37660-2

Pillar-mounted slewing jibs and cranes

These cranes can be installed almost anywhere. They are completely free-standing and are ideal as workplace cranes as well as for outdoor storage areas, loading ramps and for workshops in which other handling equipment cannot be used for structural reasons.

The pillar requires only a minimum footprint. Even where only little headroom is available, pillar-mounted jib cranes provide maximum hook paths.

Wall-mounted jib cranes

They require no floor space as they are mounted on load-bearing concrete walls or pillars or machinery and installations. Thanks to the braced design, the jibs of KBK wall-mounted jib cranes have a low dead-weight and can be easily moved with the load by hand.



37636-1



39635

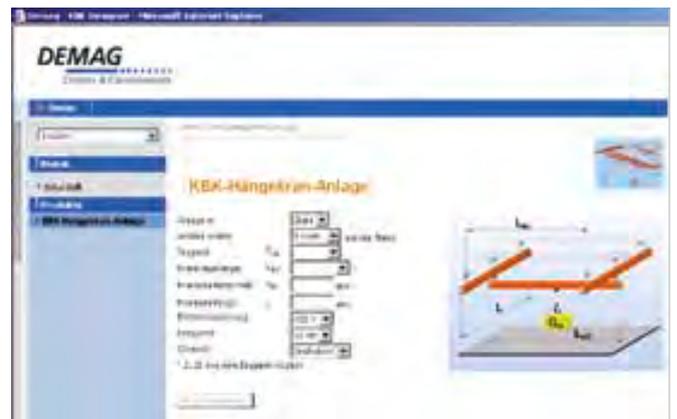
Fast and simple planning – with KBK Designer

You can find all important facts and data on the KBK crane construction kit at www.demagcranes.com.

Our online KBK Designer tool provides you with project engineering support for KBK crane installations made of steel and aluminium and for slewing jibs and cranes. You can download corresponding CAD drawings and integrate them into your design drawings. The practical and intuitive user interface ensures that you find the right solution to meet your needs quickly and easily. You can then send us your specific enquiry at a click.

We can help you

If you have any questions or want further information, please use the fax form on the opposite page or contact one of our experienced Demag sales engineers. Call the Demag information line on +49 (0) 2335 92-2922 to find a contact in your area.



Enquiry

Demag Cranes & Components GmbH
Product Promotion
P.O. Box 67
58286 Wetter/Germany

Please send an offer/the information to:

by fax to
+49 (0) 2335 92-2406

or by e-mail to
handling@demagcranes.com

Company

P.O. Box/Street

Town/post code

Contact

Telephone/extension

Telefax

E-mail

Project engineering for KBK installations

I am interested in

- | | | |
|--|--|--|
| <input type="checkbox"/> Suspension monorails | <input type="checkbox"/> Overhung cranes (KBK ergo) | <input type="checkbox"/> Stacker cranes |
| <input type="checkbox"/> Single-girder suspension cranes | <input type="checkbox"/> Extending cranes (KBK ergo) | <input type="checkbox"/> Portal cranes |
| <input type="checkbox"/> Double-girder suspension cranes | <input type="checkbox"/> Pillar-mounted slewing jibs | <input type="checkbox"/> Crane runway support structures |
| <input type="checkbox"/> Manipulator cranes (KBK ergo) | <input type="checkbox"/> Wall-mounted jib cranes | |

I require

- | | | |
|--|------------------------------------|--|
| <input type="checkbox"/> Telephone contact | <input type="checkbox"/> Quotation | <input type="checkbox"/> Detailed information on _____ |
|--|------------------------------------|--|

Details of the planned installation

Weight of the load _____ kg

Description of the load _____

Workshop dimensions

Width _____ mm

Height _____ mm

Length of the monorail/crane runway
_____ mm

Length of the crane girder _____ mm

Manipulator crane outreach length _____ mm

Overhung crane overhang length _____ mm

Extending crane intermediate girder length _____ mm

Pillar-mounted crane jib length _____ mm

Wall-mounted crane jib length _____ mm

Required hook path _____ mm

Additional information:

Demag Cranes & Components GmbH
P.O. Box 67 · 58286 Wetter/Germany
Telephone +49(0)2335 92-0
Telefax +49(0)2335 92-2406
www.demagcranes.com