


# HB LIGHT CRANE SYSTEMS

**Tailor-made, flexible material transport solutions for loads up to 2 t.**
**Efficient, cost-effective overhead material flow.**

ABUS
CRANE SYSTEMS





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ABUS HB light crane systems

# YOU CAN ALWAYS EXTEND A REALLY SMART SYSTEM

ABUS HB is a modular system which allows you to build up a complete tailor-made material handling solution to suit your requirements. The system can be adapted to the conditions and dimensions of almost any application and reliably fitted on a wide variety of different buildings. The main advantage of an ABUS HB light crane system is that it can easily be extended and adapted at any time, allowing it to grow with your business.

Monorail | Double-rail system
Single-girder crane EHB | Stooled-up single-girder crane EHB-X
Double-girder crane ZHB | Stooled-up double-girder crane ZHB-X
Single-girder crane EHB-I | Double-girder crane ZHB-I

## AT A GLANCE

Flexible modular principle for individual solutions

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For the lifting of loads up to 2 t

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Choose from strong steel profiles and light aluminium profiles to suit applications – profiles can also be combined

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Profile lengths independent of suspension points

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# CONSULTATION OPTIONS

## Why a consultation with ABUS makes the difference

Whether it's a straightforward lifting task or a more involved arrangement – each application is different. We at ABUS Crane Systems know this and are happy to help find the optimal solution for you. Ergonomic as well as cost-effective, adapted to your application. Let us advise you. ABUS Crane Systems: the only point of contact you need.



### Consultation with ABUS
### Personalised solutions for your crane installation

Our consultation begins with a detailed examination of your building conditions. Whether it's a straightforward or involved lifting application, we develop ergonomic and cost-effective designs tailored precisely to your needs. Whether it's skilled consultation from our locally-based site engineers or expert planning from our Estimating team at Head Office, we offer you fast and reliable solutions from the planning stage right through to implementation.

### Consultation in the KranHaus
### Experience technology live

See crane and lifting technology up close over a 1600 m² area. Find out for yourself how high-quality and easy to use our ABUS systems are. We also offer seminars on operation, maintenance and repair in our crane workshop and adjacent training rooms. Visit us – we're delighted to help you plan your visit





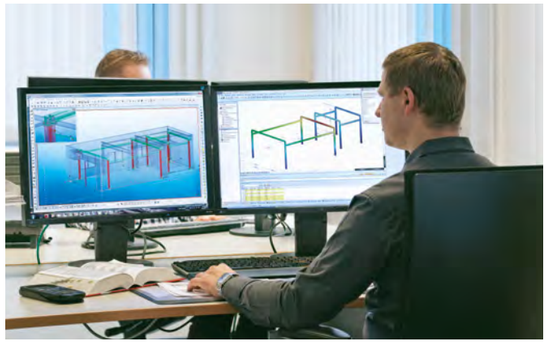
### Consultation with ABUS DirectService
### Fast, reliable, around the clock

Whether it's for an emergency or precautionary maintenance, our 24/7 service is there for you and ensures maximum availability for your crane systems. We guarantee minimal downtimes and maximum efficiency thanks to readily available spare parts and strong logistics. We also provide you with comprehensive service documentation, technical data and drawings so you can have all the important information within reach at all times.





# LIFTING SOLUTIONS FROM ONE SOURCE: CRANE SYSTEMS AND SUPPORT STEELWORK "MADE IN GERMANY"



### Engineering – good, detailed planning

You tell us your requirements – we supply the required crane solution. If standard solutions don't quite fit the bill, we will develop an individual, tailored crane installation. Our computer-assisted planning ensures precision from analysis through to product manual and forms the basis for a clear, coherent solution.



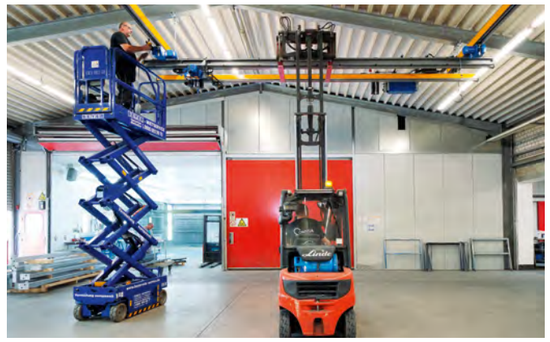
### Production – precision every step of the way

We produce ABUS crane systems with the utmost precision and to the latest standards at our production facilities in Gummersbach; Germany. We can guarantee quality and a timely delivery thanks to the latest technology and flexible production operations. Your cranes will be thoroughly checked down to the last detail for maximum reliability and service life.



### Delivery – everything from one source

With ABUS you get everything from a single source. The crane system and the support steelwork are produced in parallel and delivered at the same time, eliminating the need for additional planning. We make sure that everything runs smoothly and your project is implemented on time.



### Installation - our experience: your safety

You can trust in our experience of installation and commissioning work. We take care of planning, installation and statutory tests..
We have nationwide service points available around the clock to ensure your crane installation works as it should.

# WE PROVIDE THE FULL SERVICE

With complete solutions from a single source, progress can be controlled significantly better.

## Crane installations (see from page 12 onwards)

- The light crane system economically combines the advantages of a stationary hoist with the mobility of a main girder - the secret to its success lies in the individual fulfilment of user requirements.
- At ABUS, the light crane system is developed completely internally from concept to implementation. This enables ABUS to combine decades of experience with hoists and overhead travelling cranes with high-quality production technology and engagement to ensure greater efficiencies and cost-effectiveness in the workplace.
- Steel and aluminium profiles in combination enable statically and ergonomically optimised systems.
- The aim is for ABUS light crane systems to enable all users to lift and transport loads efficiently and safely, whether that's at a work station, warehouse, workshop or production facility.
- In short: the ABUS light crane system is all about technology, cost-effectiveness, flexibility, quality and ease-of-use in working environments.

## Steel support structures (see from page 25 onwards)

Whether it's standardised ceiling constructions or individually planned attachment solutions, you only ever need one point of contact: ABUS.

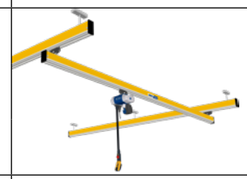
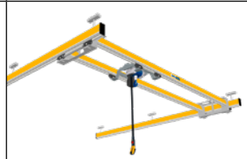
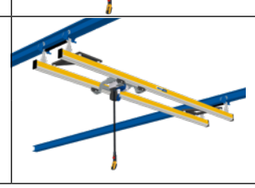


## MODULAR DESIGN

The modular design enables a customised, and at the same time economical realisation of application solutions for load capacities up to 2000 kg.




# PRODUCT RANGE

| Movement | Type | Figure | Load capacity up to | Max. crane girder length |
|---|---|---|---|---|
| Linear transport | Monorail system<br>see page 12 |  | 2,000 kg | - |
| | Double-rail system<br>see page 13 |  | 2,000 kg | - |
| For area-wide coverage | Single-girder crane EHB<br>see page 14 |  | 800 kg | 10.0 m |
| | | | 1,000 kg | 9.8 m |
| | | | 1,250 kg | 3.8 m |
| | Stooled-up single-girder crane EHB-X<br>see page 15 |  | 1,000 kg | 8.0 m |
| | Double-girder crane ZHB<br>see page 16 |  | 1,600 kg | 12.0 m |
| | | | 2,000 kg | 10.8 m |
| | Stooled-up double-girder crane ZHB-X<br>see page 17 |  | 1,000 kg | 8.0 m |
| | | | 2000 kg | 7.0 m |
| | Single-girder crane EHB-I (on crane track made from rolled section girders), see page 18 |  | 800 kg | 10.0 m |
| | | | 1,000 kg | 9.8 m |
| | Double-girder crane ZHB-I (on crane track made from rolled section girders), see page 19 |  | 1,600 kg | 12.0 m |
| | | | 2,000 kg | 10.8 m |

# LINEAR TRANSPORT




Fitted to a wooden support beam using an embracing bracket

## ABUS monorail system

Linear transport
Load capacity: up to 2 t

- Low headroom
- Wide suspension distances
- Easy to move manually
- Options, see page 30



ABUS light crane system | Linear transport

# LINEAR TRANSPORT




Fitted to a rectangular tube using an embracing bracket

## ABUS double-rail system

Linear transport
Load capacity: up to 2 t

- Wide suspension distances
- Easy to move manually
- Chain hoist installed between rails for improved lifting height
- Ultra-low headroom
- See page 30 for options

# FOR AREA-WIDE COVERAGE



Fitted to a reinforced concrete support beam using an embracing bracket

## ABUS single-girder crane EHB

For area-wide coverage
Load capacity: up to 1.25 t
Crane girder length: up to 10 m (depending on load capacity)

- Very light crane; ideal for use in lightweight buildings
- Easy to move manually
- Low headroom
- Short end approach dimensions
- Wide suspension distances
- See page 30 for options



ABUS light crane system | Area-wide coverage

# FOR AREA-WIDE COVERAGE




Fitted to rolled section I-beam using clamps

## ABUS stooled-up single-girder crane EHB-X

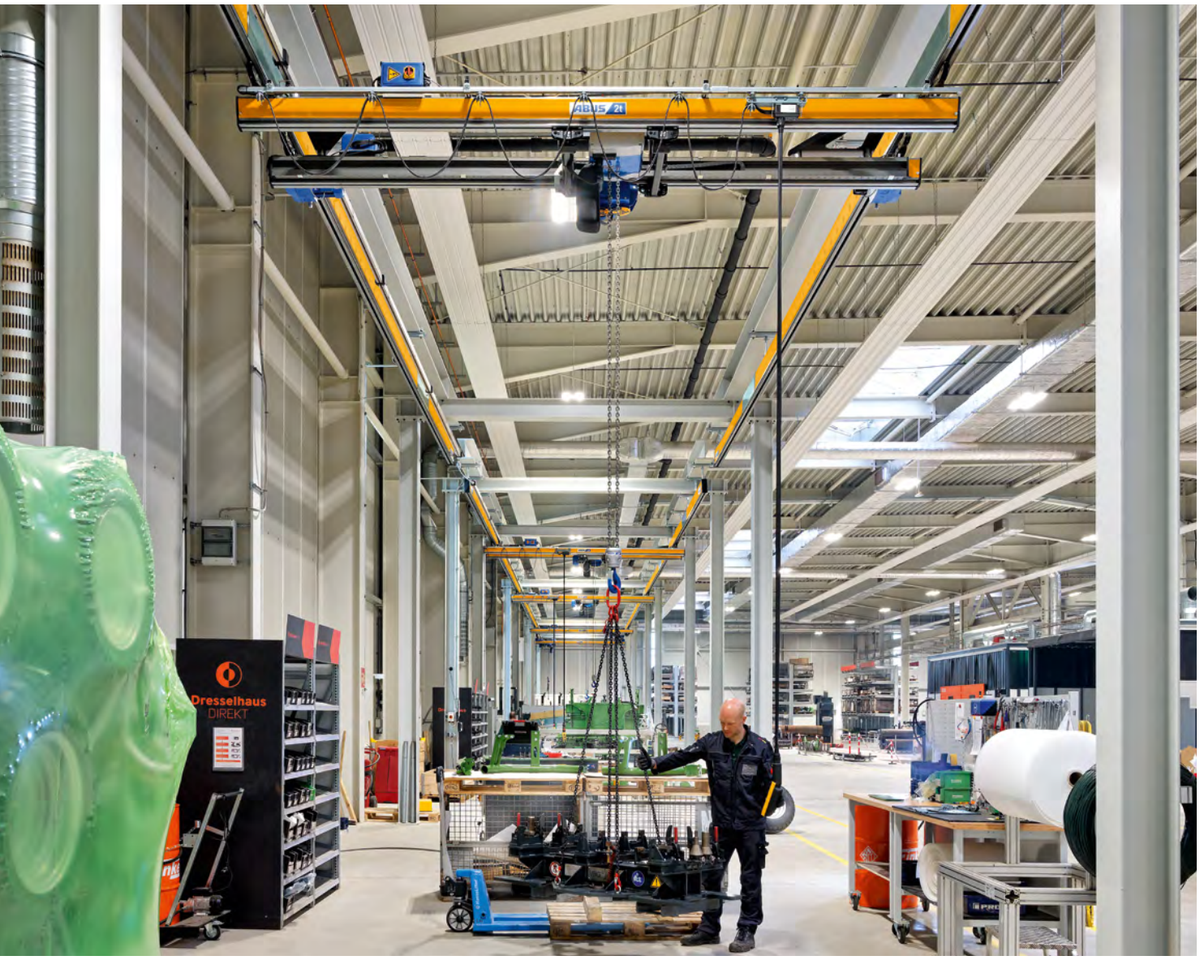
For area-wide coverage
Load capacity: up to 1 t
Crane girder length: up to 8 m (depending on load capacity)

- Stooled up crane for optimum use of available space
- Easy to move manually
- Ultra-low headroom
- Short end approach dimensions
- Wide suspension distances
- See page 30 for options




Difference in achievable hook heights between single-girder crane EHB and stooled up single-girder crane EHB-X

# FOR AREA-WIDE COVERAGE




Fitted to rolled section I-beam using clamps

## ABUS double-girder crane ZHB

For area-wide coverage
Load capacity: up to 2 t
Crane girder length: up to 12 m (depending on load capacity)

- Wide suspension distances
- Ultra-low headroom
- Chain hoist installed between crane girders for improved lifting height
- See page 30 for options



ABUS light crane system | Area-wide coverage

# FOR AREA-WIDE COVERAGE




Fitted to rolled section I-beam using clamps and including preparation for vacuum hoist unit

## ABUS stooled-up double-girder crane ZHB-X

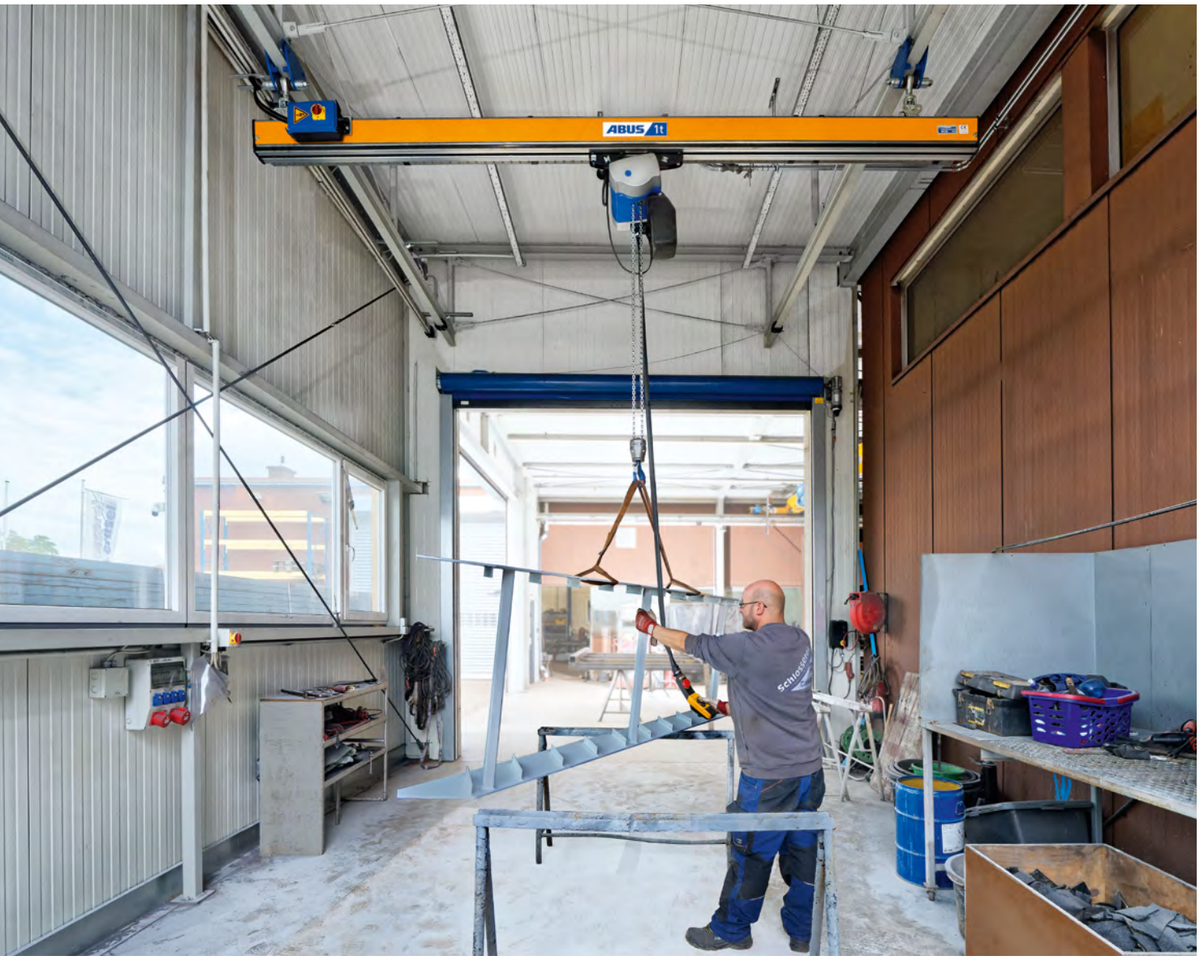
For area-wide coverage
Load capacity: up to 2 t
Crane girder length: up to 8 m (depending on load capacity)

- Stooled up crane for optimum use of available space
- Ultra-low headroom
- Wide max. suspension distances
- See page 30 for options




Difference in achievable hook heights between double-girder crane ZHB and stooled-up double-girder crane ZHB-X

# FOR AREA-WIDE COVERAGE



Mobile due to push-pull trollies on steel support beams

## ABUS single-girder crane EHB-I

For area-wide coverage
Load capacity: up to 1 t
Crane girder length: up to 10 m (depending on load capacity)

- Very light crane; ideal for use in lightweight buildings
- Easy to move manually
- Crane track made from standard rolled section girders
- Short end approach dimensions
- See page 30 for options



ABUS light crane system | Area-wide coverage

# FOR AREA-WIDE COVERAGE



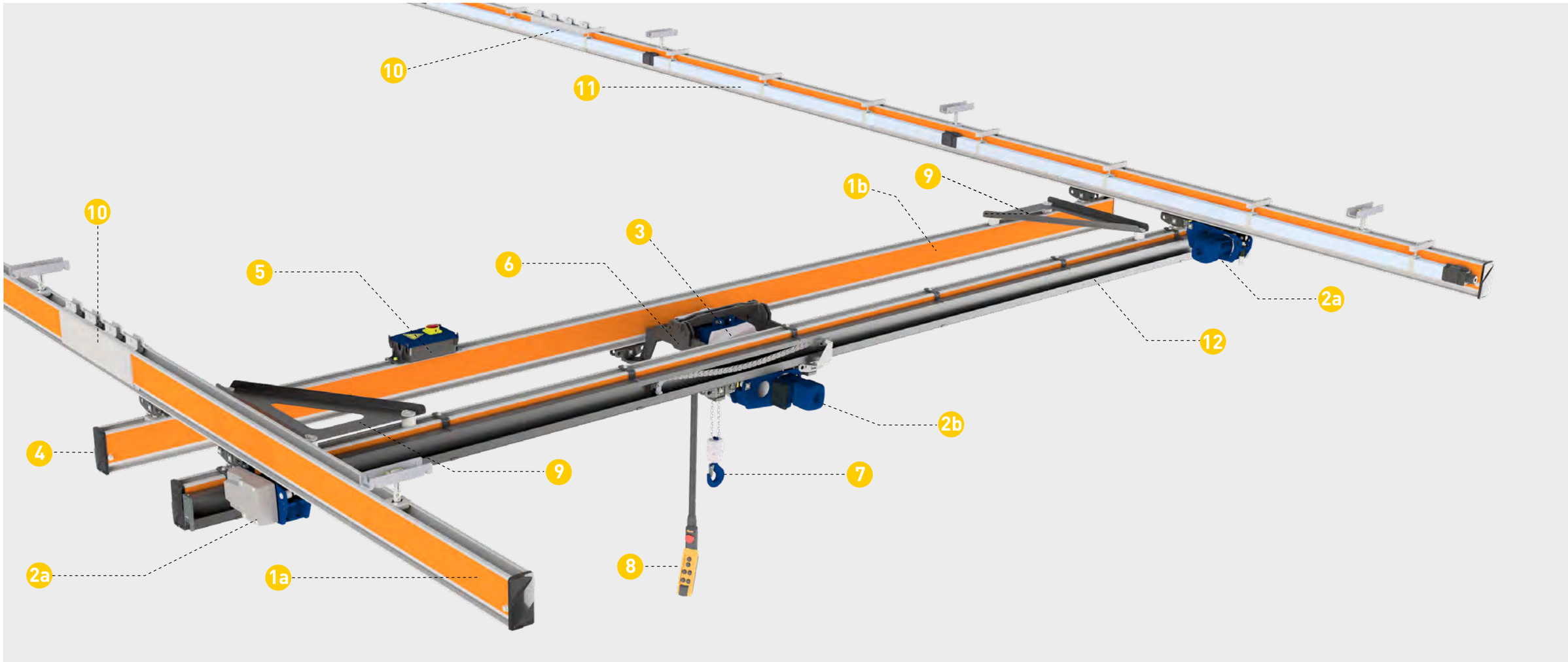
Mobile due to powered trollies on steel support beams

## ABUS double-girder crane ZHB-I

For area-wide coverage
Load capacity: up to 2 t
Crane girder length: up to 12 m (depending on load capacity)

- High load capacity
- Chain hoist installed between crane girders for improved lifting height
- Crane track made from standard rolled section girders
- See page 30 for options

# THE COMPONENTS OF THE ABUS LIGHT CRANE SYSTEM




1 HB profile: 1a) Track profile 1b) Crane profile

2 Drives: 2a) Crane travel drive 2b) Cross travel drive

3 Chain hoist

4 Combined end stop and end cap

5 Junction box

6 Double-rail trolley frame

7 Load hook / hook assembly

8 Pendant control

9 Track bracing bracket

10 Joint connection

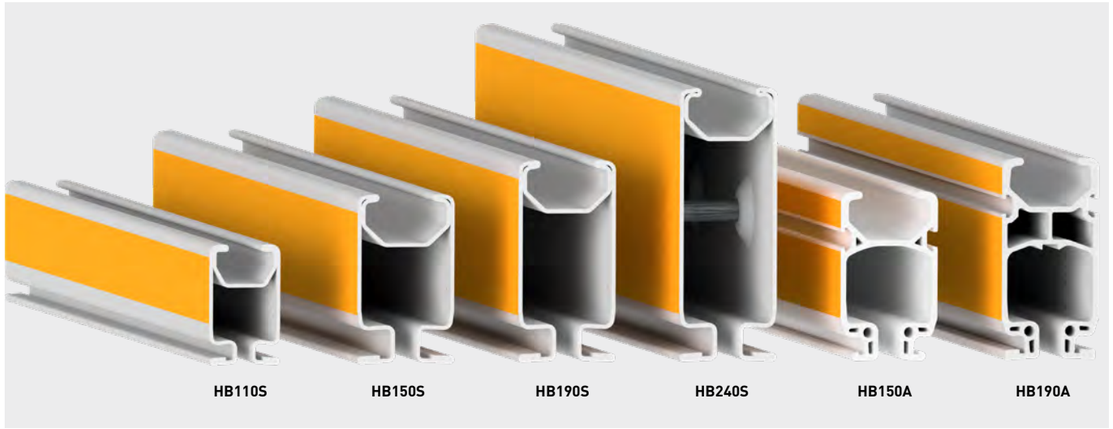
11 Safety conductor KBH

12 ABUPowerline energy chain

**The advantages of ABUPowerline as a default cross bridge power supply for our HB light crane systems at a glance:**

- **Safety:** Travel above obstacles without risk of cable snagging.
- **Reliability:** Enclosed system, unaffected by dust or moisture, no open cable trays.
- **Performance:** Significantly improved approach dimensions with increasing crane girder length compared to festoon cabling, as no cable bunching area required. Effortless utilisation of the entire area beneath the crane.
- **Ergonomics:** Smooth and quiet operation, minimum manual force required to move the chain hoist.
- **Delivery times:** Stocked components enable short delivery times and a rapid availability.

# SUCCESSFUL PROFILING - IN A NEW DESIGN




## 1 Internal runner profiles

The complete load capacity range of the ABUS suspended rail system up to 2000 kg is covered by six profile types.

- Precision-milled steel profiles or extruded aluminium profiles ensure maximum running surface quality and smooth system operation for every application, even under challenging conditions.
- The easy maintenance internal runner profile offers effective protection to the drives.



**Resilient profile joint**

- Good cross-sectional properties allow for greater suspension distances, even in larger load capacity ranges.
- Bend resistant joint connections allow flexible planning for crane runways, independent of statically required suspension positions.
- Galvanised profile rails do not scratch when lifted with the forklift.

### ABUS ADVANTAGES

Cranes and trolleys can be operated manually with minimal effort, but can be retrofitted with an electrically powered drive at any time.





# LOTS OF POWER PACKED IN

## 2 ABUS trolleys

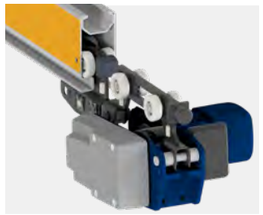
- Easy manual movement due to internal runner profile being protected against build-up of grime.
- Can be easily retrofitted with an electrically powered drive to further increase of use.



**Internal runner profile with trolley**

## ABUS drives

- Standard two-speed drive with main and slow speed.
- Frequency converter controlled stepless travel optional.
- No loss in side approach dimension if integrating a double-rail trolley.



**Light crane system drive**

## 3 ABUS electric chain hoists

- GMC 230 V 50 Hz for load capacities up to 250 kg with stepless lifting.
- ABUCompact 3PH 400 V 50 Hz for load capacities up to 2000 kg and lifting speed up to 20 m/min.
- Minimal maintenance thanks to brake linings with up to 1 million full-load braking procedures.
- Adjustable friction clutch.
- Lubrication for precision gearbox service life.
- Specially hardened, low-wear chains.
- Plug-in connection to allow safe installation or swift conversion




**ABUCompact GMC**




**ABUCompact GM2**




**ABUCompact GM4**




**ABUCompact GM6**

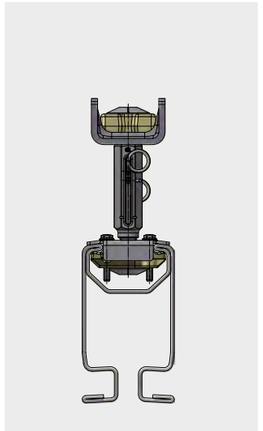
# SUSPENSIONS

## 4 Suspensions

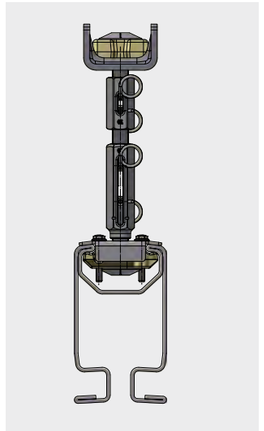
Various suspension types offer the required flexibility for your application.

The ABUS engineers have paid special attention to the profile connection with rubber-cushioned suspension, which can be inserted into the profile from above at any point.

- Minimised installation effort, especially for crane system extensions and load increases to existing systems, as well as for servicing. All components for height adjustment are secured with clearly visible spring pins.
- The non-wear rubber mounting makes the suspension largely maintenance-free.
- A vibration-reducing effect reduces swinging in the system.



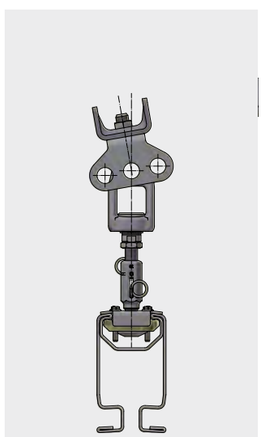
Short suspension



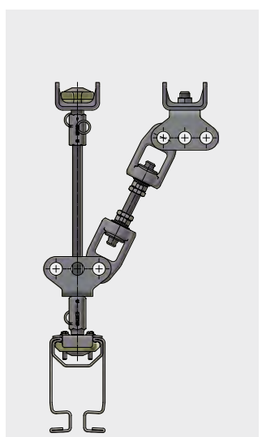
Normal suspension



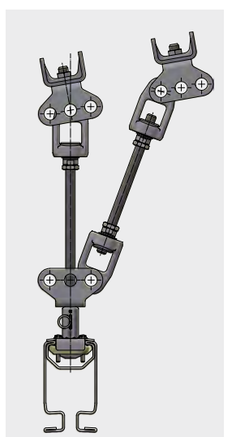
Profile connection can be inserted from above



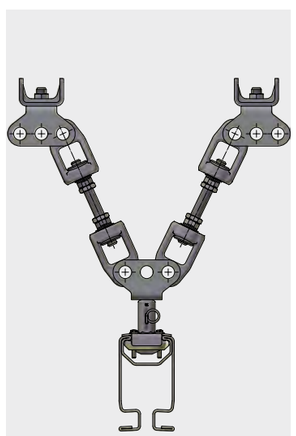
Inclined suspension



Standard stiffener



Inclined stiffener



V-suspension





# SUSPENSIONS AND STEEL SUPPORT STRUCTURES

## 4 Suspensions

For attaching to the lower flange of a steel girder.
The following attachment variants are possible:

- **Flange clamp**

Do you have existing I-beam steelwork above your application? Then you can install an HB light crane system directly onto the I-beam using flange clamps. The clamp can be fitted to the lower flange of various profiles, such as on I, INP, IPE, HEA, HEB or HEM beams.




Flange clamp

Alternative attachment variants:

- **Weld-on block**
- **Bolts**

## 5 Steel support structures

For attaching to a reinforced concrete ceiling.
The following attachment variants are possible:

- **Dowel (resin anchor)**

Do you have a reinforced concrete ceiling or a composite deck (filigree ceiling) onto which you would like to fit the light crane system?
Dowels are the most common type of attachment for such a ceiling construction. Drill holes are made in the concrete ceiling and then resin anchors are inserted, to which a dowel plate is attached. The ABUS suspension can then be attached to this plate. You will receive all of the required mounting materials, consisting of the dowels, dowel plates and connection material.




Dowel (resin anchor)

Alternative attachment variants:

- **Cast-in anchor channel**
- **Anchor bolts**

For further details, see online at:

# FLEXIBLE MOUNTING SYSTEM

## 5 Steel support structures

For attaching to a reinforced concrete wall or support beam, or to wooden support beams. The following attachment variants are possible:

- **Standard bracket**

Does the ceiling construction in your building consist of reinforced concrete or wooden support beams?
You can use our standard brackets as a solution for mounting the light crane system. These are attached to the sides of the building girders.

The light crane system is then mounted on the standard brackets using flange clamps.




Standard bracket on reinforced concrete support



View of rear of standard bracket fitted to reinforced concrete support




Standard bracket on wooden support beam



View of rear of standard bracket fitted to wooden support beam

Alternative attachment variant:

- **Stooled-up bracket**

For further details, see online at:





# FLEXIBLE MOUNTING SYSTEM

## 5 Steel support structures

For attaching to reinforced concrete or wooden support beams. The following attachment variants are possible:

- **Embracing bracket**

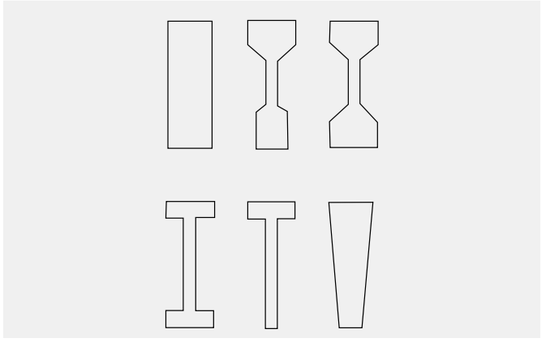
Does your building consist of reinforced concrete or wooden beams which cannot be drilled through?
The ABUS embracing brackets are the solution here. We will also supply you with steel plates for these which are connected using threaded rods. The top plate has an especially narrow design so that it can also be used if a ceiling made out of trapezoidal plate lies on top of the building girders.




Embracing bracket on reinforced concrete support beam




Embracing bracket on reinforced concrete support beam



The embracing bracket works on all these girder shapes.

For further details, see online at:

# FLEXIBLE MOUNTING SYSTEM

## 5 Steel support structures

For attaching to reinforced concrete or wooden support beams. The following attachment variants are possible:

- **Tie brackets**

Would you like to fit a light crane system directly beneath building girders which cannot be clamped around?
Using ABUS tie brackets, light crane systems can be fastened directly underneath your supporting structure. Here the girders are drilled through at the side - it is not necessary to have access to the assembly area from above.
The tie brackets can be used for various types of reinforced concrete trusses and wooden beams with rectangular profiles.




**Tie bracket on reinforced concrete beam**




**Tie bracket on wooden beam**




For further details, see online at:

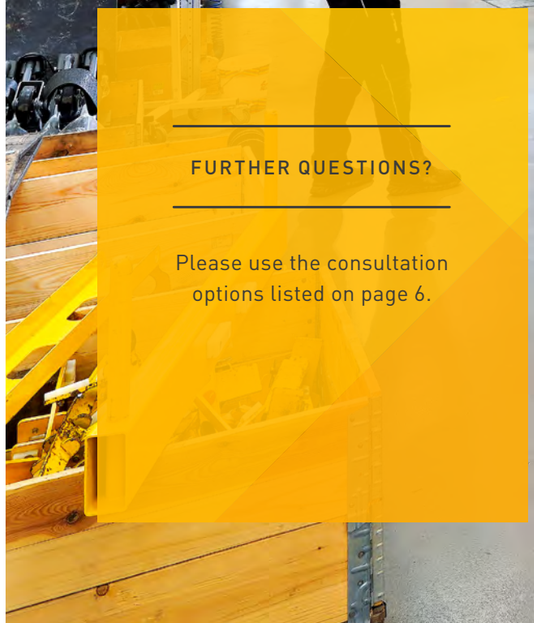
# ADDITIONAL EQUIPMENT

## Overview of delivery options for additional equipment

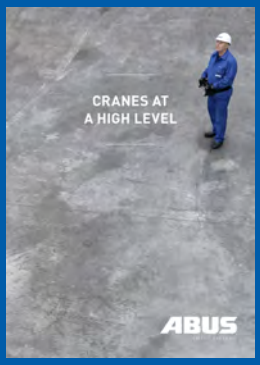
| Function / Functional unit | Additional equipment | Possible for the following types | | |
|---|---|---|---|---|
| | | Linear transport | Area-wide coverage | |
| | | Monorail and double-rail system | Single-girder crane EHB | Stooled-up single-girder crane EHB-X<br>Double-girder crane ZHB<br>Stooled-up double-girder crane ZHB-X |
| Electric chain hoist | Comprehensive additional equipment | X | X | X |
| Operation | Mobile pendant control independent of hoist position | - | - | X |
| | Operational element on load hook | X | X | X |
| | ABURemote radio remote control | X | X | X |
| Power supply | Via conductor system | X | X | X |
| | Via festoon cable system in separate C-rail | - | - | X |
| Electric drives | Powered cross travel | X | X | X |
| | Powered long travel | X | - | X |
| Control | Contactor control with 48 volt control voltage | X | X | X |
| | Stepless lifting speed via frequency converter | X | X | X |
| | Stepless travel movement via frequency converter | X | X | X |
| Motion restrictor | Cross travel limit switch | X | X | X |
| | Long travel limit switch | - | - | X |
| | Photoelectronic anti-collision device | - | - | X |
| | Bypass control for obstacles | - | - | X |
| | Hoist limit switch for electric chain hoist | X | X | X |

**Combinations of various additional equipment options may be mutually exclusive in some circumstances. We would be pleased to advise you where this is the case.**

For further details, see online at:



## COMPLETE SOLUTIONS FROM ABUS



















You can find further product information on our entire product portfolio at:
**www.abuscranes.co.uk/downloads**

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ABUS CRANE SYSTEMS

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