

Tailor-made modular crane systems
for Safe Working Loads up to 2000 kg

The ABUS HB-System in practice – A versatile workhorse





The HB-System, not a near miss ...

The HB-System is one of the most successful developments in lifting and material handling technology, combining the effectiveness of a stationary hoist with the mobility of an overhead crane, efficiently and cost-effectively.

ABUS have all the resources it takes to develop systems like the HB in-house: experience with hoists and overhead cranes, high-quality production facilities and,

perhaps most important of all, the determination to develop more user-friendly workplaces free from unnecessary burdens. The task of ABUS was, and still is, to offer the HB-System with as many useful features as possible at as low a cost as possible. Anyone who needs assistance with lifting and handling loads at their place of work, in warehouses, workshops or factories, should have an ABUS

HB-System available, which means that these systems must be affordable. Today's HB-Systems feature a combination of advanced technology, economy, flexibility, quality and ergonomics which has gained full recognition in our market. The secret of our success has been to fulfil the individual requirements of each customer's application.



ABUS single girder
crane EHB

...but right on target from ABUS!
right down to the nuts and bolts



ABUS deliberately specialises in off-floor lifting and load handling systems for loads up to 120 t. Not only because this load range includes by far the majority of all materials handling applications, but also because specialisation enables us to utilise rationalisation potential most effectively. ABUS offers a comprehensive range of readily available, efficient load handling systems: jib cranes, overhead cranes, monorail trolley tracks, electric wire rope and chain hoists, a wide variety of components and, last but certainly not least, the HB-System. Our services range from the development of solutions for bespoke applications right through to implementing complete materials handling systems.

And all our services are characterised by the special ABUS attitude: we offer not only a bare product, but also practical advice and assured quality. The product guarantee which we offer is still unique in our field and individual user support and a nationwide after-sales service network with rapid, effective response are all part of the ABUS service.

ABUS crane systems and components



Overhead Cranes



Jib Cranes



HB-System



Lightweight mobile gantry LPK



Electric Wire Rope Hoists



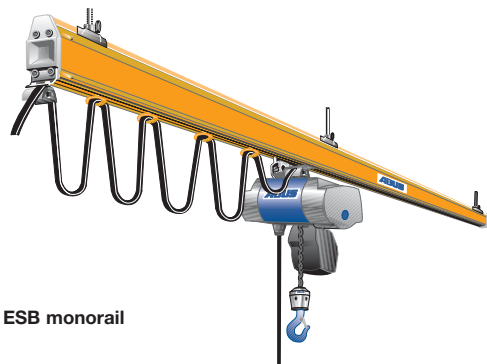
Electric Chain Hoists



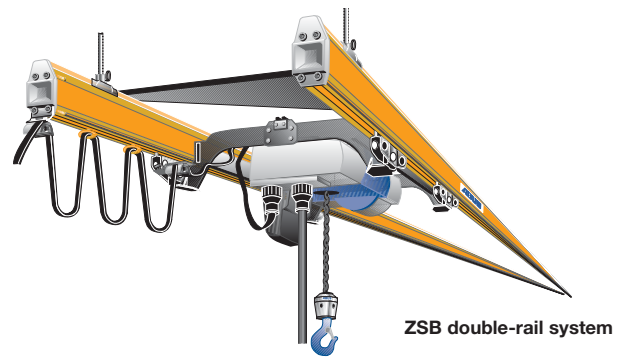
High-Performance Components

ABUS HB-System

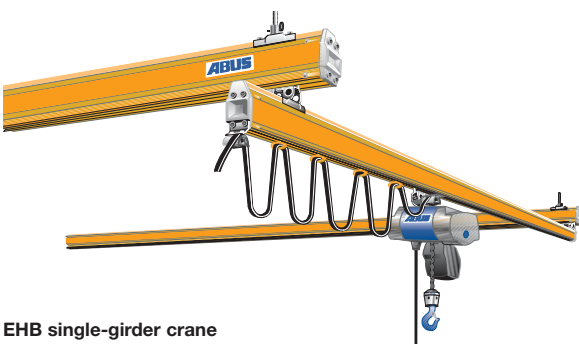
The systematic approach to ideal solutions



ESB monorail



ZSB double-rail system



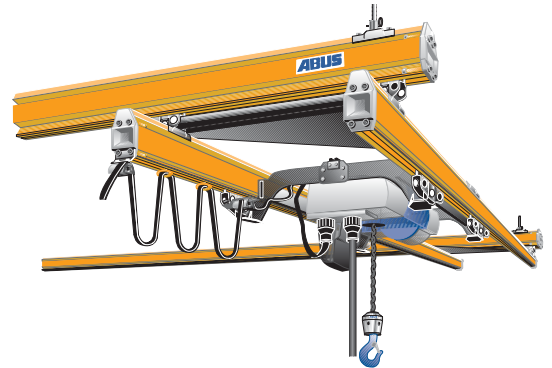
EHB single-girder crane



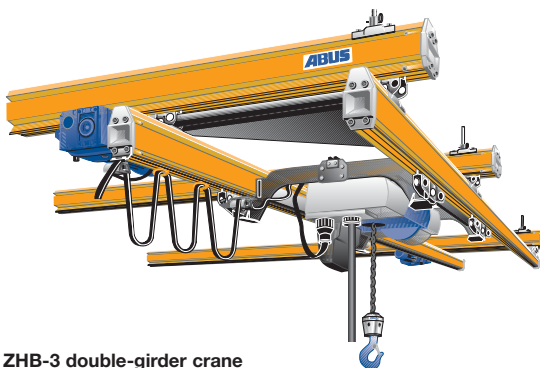
EHB-X stooped up single-girder crane

The ABUS HB-System offers tailor-made modular solutions. The components of the system are both practical and cost-effective and can be combined to build just the system which the application demands. All HB-Systems feature an extremely low-build design, ensuring that maximum hook height can be reached in the space which is available. Three types of profiles cover a load capacity range up to 2000 kg. All electrical connections are made using an easy plug-in connector system.

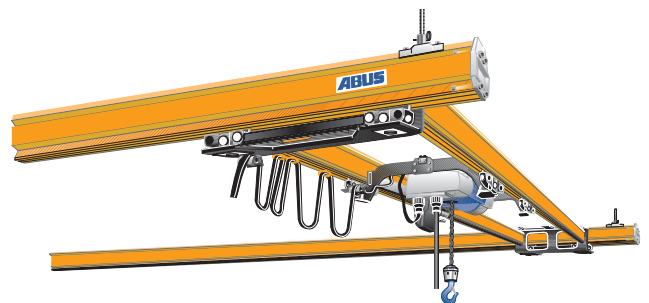
And the system can be adapted and individually fitted to almost any type of room or ceiling design.



ZHB double-girder crane



ZHB-3 double-girder crane



ZHB-X stooped up double-girder crane

ABUS HB-System

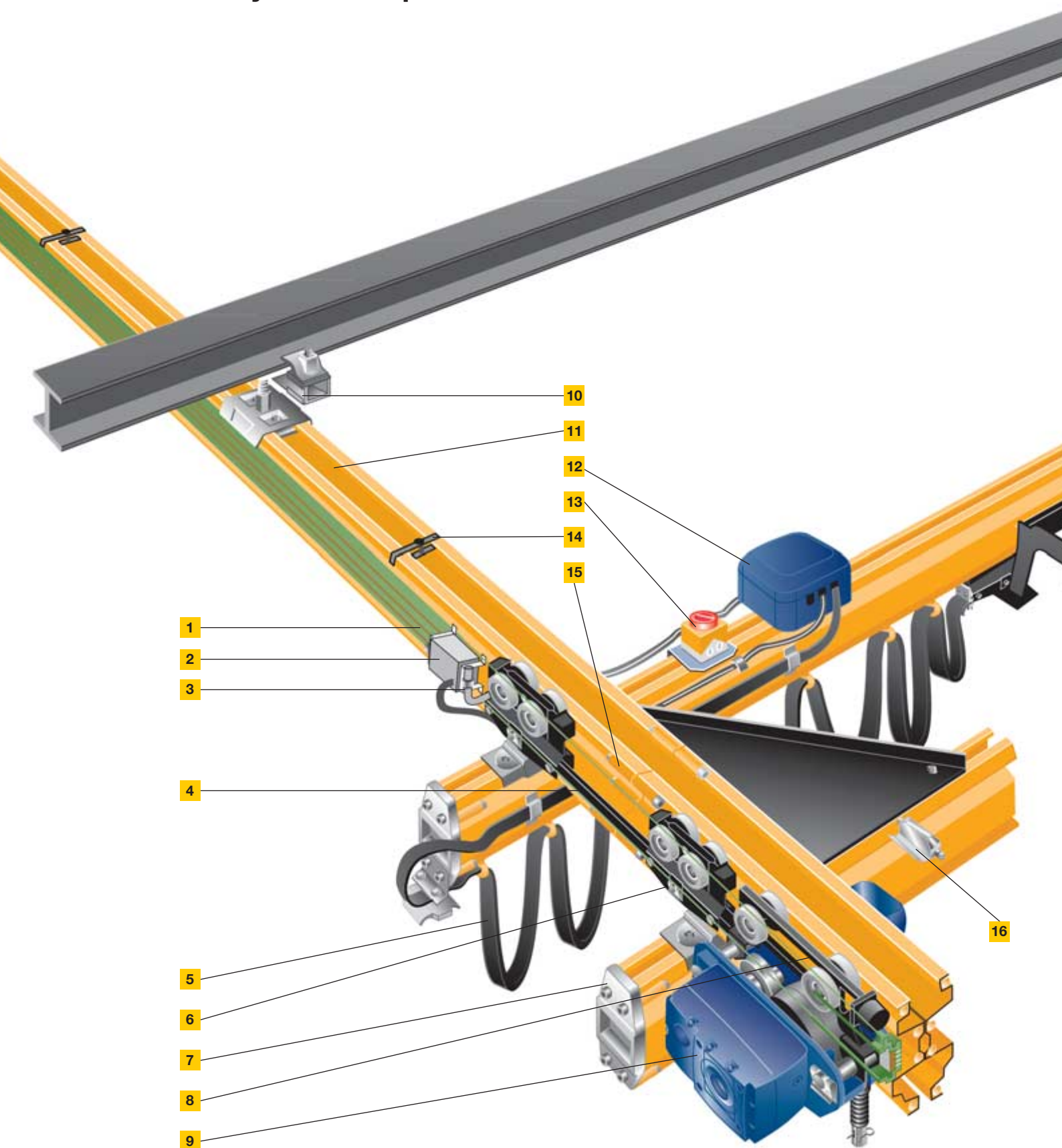
Summary of types, ratings and key dimensions

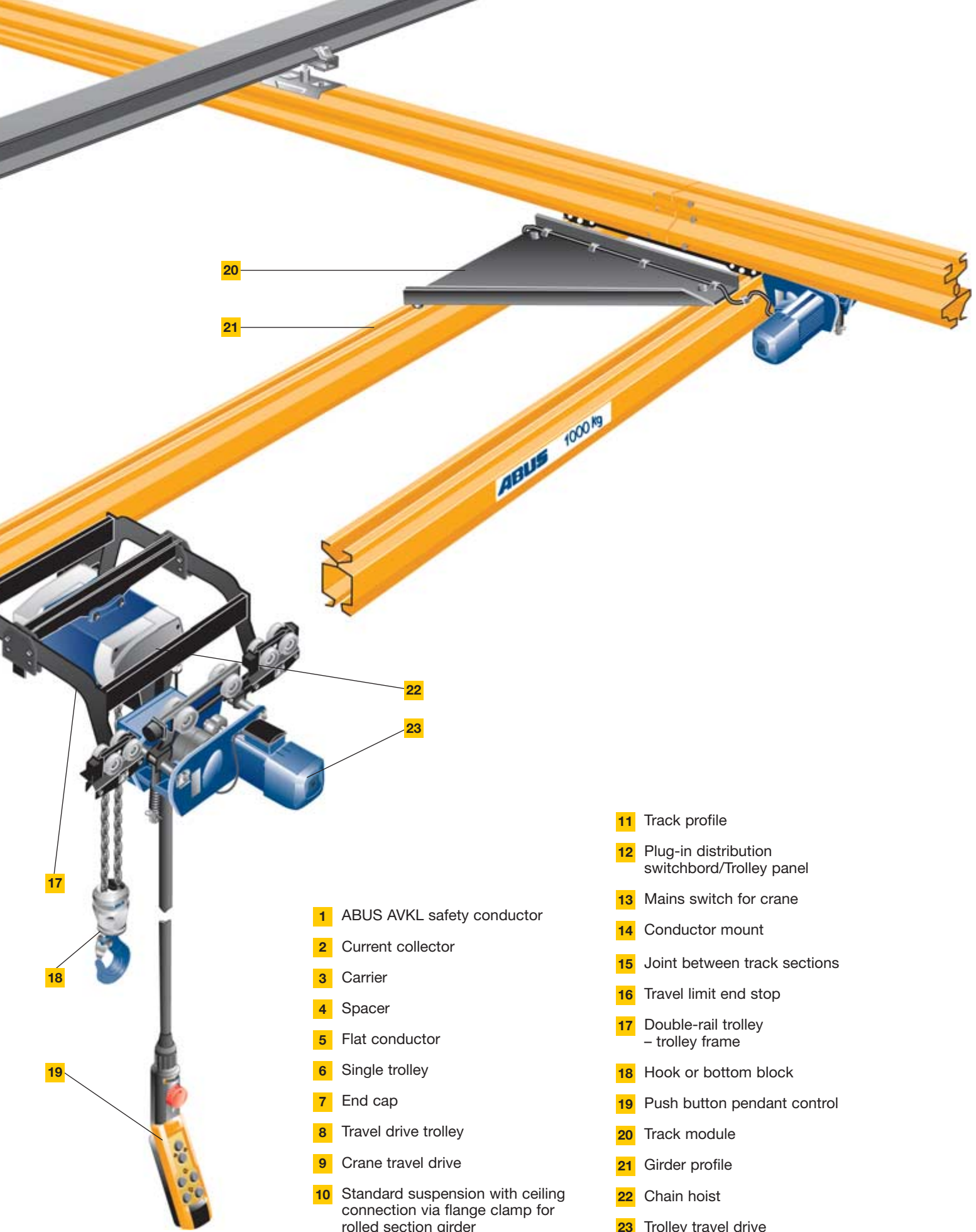
Type	Load capacity kg	Maximum crane girder length mm	Track length mm	Maximum suspension distance mm
ESB monorail	125 250 500 1000 2000	– – – – –	any	10500 10300 9000 7300 5100
ZSB double-rail system	125 250 500 1000 2000	– – – – –	any	10500 10500 10300 9000 7300
EHB single-girder crane	125 250 500 1000	10000 10000 10000 8000	any	10300 9500 8200 6900
EHB-X stooled up single-girder crane	125 250 500 1000	8000 8000 8000 7000	any	10500 9700 8600 7200
ZHB double-girder crane	125 250 500 1000 2000	12000 12000 12000 12000 8000	any	8900 8400 7300 6200 4100
ZHB-X stooled up double-girder crane	125 250 500 1000 2000	8000 8000 8000 8000 6000	any	9300 8800 7800 6700 5200
ZHB-3 double-girder crane	125 250 500 1000	22000 22000 21000 15000	any	on request



ABUS ZHB double-girder cranes

HB-System components





ABUS HB-System

Features you can use to the full



ABUS ESB monorail



ABUS EHB single-girder crane



ABUS ZHB double-girder crane

The practical design features of the ABUS HB-System bring perceptible benefits for users and their applications:

- With its modular design, the system can simply be tailored to provide cost-effective solutions for users' applications.
- A wide variety of suspension designs are available, permitting installation in conditions which you would scarcely have thought possible.
- Load capacities can be defined in accordance with individual requirements, up to 2000 kg; later extension is often possible.
- The number of component parts is reduced to the bare minimum, simplifying erection, saving time and helping to prevent errors – just what you need if your own specialists are to erect the system.
- No special tools are required for erection.
- With the special plug-in connectors typical of ABUS systems, electrical installation is also quick and safe.
- ABUS drives and hoists provide a variety of electrical functions for more rational, safer working – with low noise, smooth starting and lifting and smooth switching between speeds.
- In addition, all components are designed for optimum interaction. For example, a low headroom ABUS electric chain hoist combined with a double rail trolley on an HB-System (types ZSB, ZHB, ZHB-X or ZHB-3) ensures optimum space utilisation and maximum hook height.
- The fundamental advantages of the ABUS HB-System continue to bear fruit in the period following initial investment. The system can be maintained, modified, modernised and uprated efficiently and cost-effectively.

ABUS HB-System

Keeping a high profile



Track profiles:
a) HB160
b) HB200
c) HB250

Distinctive features:

enclosed-track profiles

Advanced CAD¹⁾ and FEM²⁾ systems were used to design and optimise the track profiles of the HB-System. The results are three types of profile covering the entire load capacity range of the HB-System up to 2000 kg. All the profiles are made from cold-rolled halves welded together to form a high-grade enclosed-track profile, within which the load trolley is housed.

ABUS opted for enclosed-track profiles because they effectively protect the trolley running gear and also offer advantages in terms of maintenance.

They also have two additional major advantages. The favourable structural design of the track girder system means that wide suspension spacing is possible, even with high load capacities. And high-grade bolted joints warrant high joint factors and improved load capacity.

In combination, these two features significantly reduce the work involved in installing an HB-System and enhance the productivity of the system.

Manual operation of cranes and trolleys is almost effortless.

- 1) CAD = Computer Aided Design
- 2) FEM = Finite Element Method



Our masterpiece: the suspension

Our engineers have paid particular attention to the suspension, and for good reasons too. The quality of the suspension and connections is an essential feature in ensuring the quality and availability of the entire HB-System.

A characteristic feature of the ABUS HB-System is a flexible suspension using ball-and-socket joints. These low-build systems are adjustable in height and are therefore particularly versatile. The pendulation motion of the suspension absorbs horizontal forces from the crane system, reducing loads on roof structures and buildings.



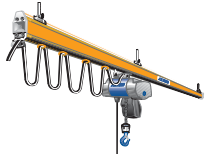
Enclosed-track profile with trolley

ABUS has a whole range of connections for attaching HB-Systems to ceilings or other elements of buildings. Together, the suspension and the ceiling mount ensure that an HB-System can be installed in almost any conditions.

ABUS HB-System

Variations on a powerful theme

ABUS ESB monorail



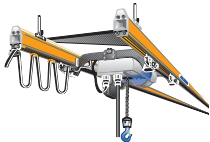
Linear point-to-point coverage

Load capacity: up to 2 t

- curved sections available as an option
- low headroom
- wide suspension spacing
- optional electric hoist travel



ABUS ZSB double-rail system



Linear point-to-point coverage

Load capacity: up to 2 t

- wide suspension spacing
- chain hoist installed between rails for improved lift height
- extremely low-build design
- optional electric hoist travel
- optional mobile control





ABUS EHB single-girder crane

Area 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
- low headroom
- short end approach dimensions
- wide suspension spacing



ABUS EHB-X stooled up single-girder crane

Area coverage

Load capacity: up to 1 t

Crane girder length: up to 8 m
(depending on load capacity)

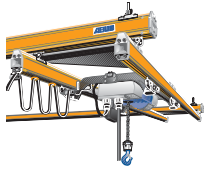


- stooled up crane for optimum use of available space
- easy to move manually
- ultra low headroom
- short end approach dimensions
- wide suspension spacing
- optional electric long + cross travel
- optional mobile control

ABUS HB-System

Variations on a powerful theme

ABUS ZHB double-girder crane



Area coverage

Load capacity: up to 2 t

Crane girder length: up to 12 m
(depending on load capacity)

- wide suspension spacing
- very low headroom
- chain hoist installed between crane girders for improved lift height
- optional electric long + cross travel
- optional mobile control



ABUS ZHB-X stooled up double-girder crane



Area 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 maximum suspension spacing
- optional electric long + cross travel
- optional mobile control



ABUS ZHB-3 double-girder crane



Area coverage

Load capacity: up to 1,6 t

Crane girder length: up to 22 m
(depending on load capacity)

- long crane spans possible
- lower headroom compared with EOT
- wide suspension spacing
- electric long + cross travel
- optional mobile control



ABUS HB-System

The power house



Fig.
ABUCompact GM4

ABUS electric chain hoists

All ABUS HB-Systems are fitted with ABUS chain hoists ABUCompact. The new generation of ABUCompact chain hoists feature a fresh new design and convincing technical solutions. The 3 phase 400 volt hoists units are available in three different sizes to reliably handle loads up to 2000 kg with a low-build design for optimum utilisation of the space available and a precision lifting function for the careful lifting and lowering of sensitive goods.

The small GMC hoist rounds off the ABUCompact range. With infinitely variable lifting speed and a load capacity of 100 kg or 200 kg, this unit, supplied ready for connection to a 230 V power socket, is the ideal hoist for flexible and low capacity applications.

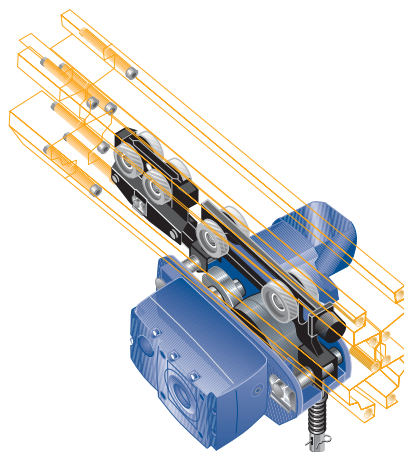
The motor and the gear unit are of modular design, allowing us to produce a wide variety of versions for lifting speeds up to 20 m/min and FEM groups up to 4m at attractive prices.

The chain hoists have a number of features which are particularly beneficial in terms of reduced maintenance requirements; long-life brake linings (normally, adjustment is only required after 1 million full-load braking operations); permanently lubricated precision gearbox; adjustable sliding clutch; specially hardened low-wear chain; plug-in connectors for easy installation and maintenance and many other features.

Where single girder trolleys are used, the chain hoist is simply suspended from the trolley and is ready for operation as soon as the connectors have been plugged in.

ABUS travel drives

When needed, the HBF friction wheel drive provides the power for an HB-System. The drive motor has a smooth performance curve for soft starting and braking. Where loads in excess of 500 kg are handled and the crane girder is longer than 6 m, the HBF drive is an almost indispensable component of the system. These compact units can be integrated in the trolley itself if a double girder trolley is used, saving approach dimensions.

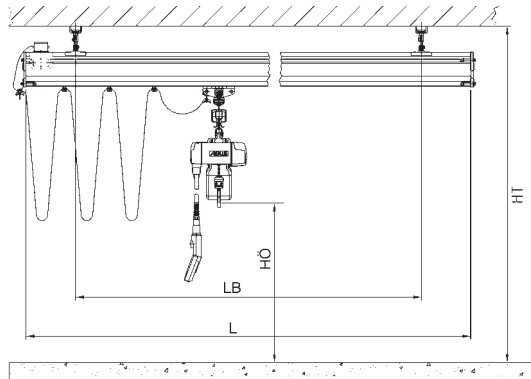


The ABUS electric chain hoist used in connection with double-girder crane systems is built directly into the crab frame without a suspension eye. This will achieve optimum hook height in tight applications.

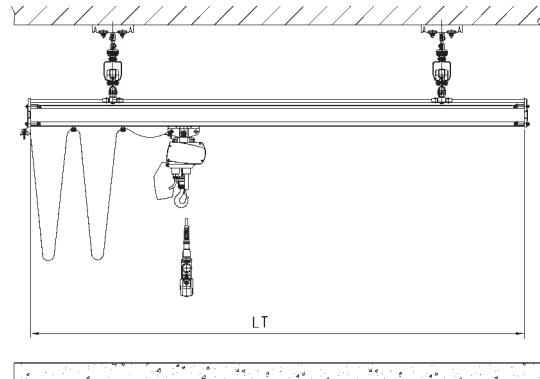
The first step towards your HB-System

Just copy this form, complete it and fax it to us for an initial quotation without obligation.

Company _____	Postcode/Town _____
Name _____	Phone/extension _____
Address _____	Fax no. _____
e-mail _____	



View A



View B

Please provide:

- | | |
|--|--|
| <input type="checkbox"/> Advice by telephone | <input type="checkbox"/> A site visit from ABUS representative |
| <input type="checkbox"/> ABUS quotation | <input type="checkbox"/> ABUS brochure "The product overview" |

Technical data for desired crane installation:

A. B. Point-to-point travel

Load capacity: _____ kg
 Track length (L): _____ mm
 Suspension distance (LB): _____ mm
 Number of trolleys on one track: _____
 Electrical hoist travelling: ☐ Yes ☐ No

B. Area-coverage travel

Load capacity: _____ kg
 Crane girder length (LT): _____ mm
 Track length (L): _____ mm
 Suspension distance (LB): _____ mm
 Number of cranes on one track: _____
 Electrical hoist travelling: ☐ Yes ☐ No
 Electrical crane travelling: ☐ Yes ☐ No

On-site conditions:

Connection height (HT): _____ mm
 Highest hook position required (HÖ): _____ mm
☐ Steel beams in ceiling from which to hang
☐ Concrete ceiling from which to hang