



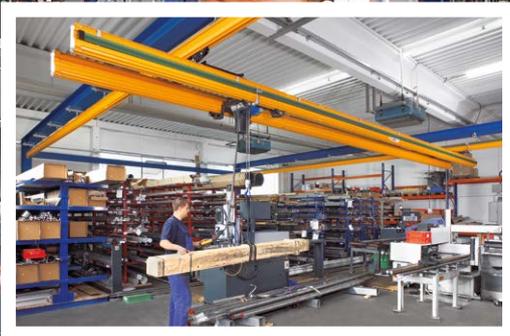
**Tailor-made modular crane systems  
for Safe Working Loads up to 2000 kg**

**ABUS**  
CRANE SYSTEMS

**HB-System**

# The ABUS HB-System in practice – A versatile workhorse





## Crane solutions from a single source the crane system ...

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

## ...and the appropriate support structure above

Regardless of whether your ceiling structure is suitable or if a separate support structure is required, the HB system provides a suitable attachment solution for almost all conditions.

Whether a standardised connection attachment with its short lead time, or a bespoke support structure is required, you need only one contact - ABUS.

Detailed information and examples of solutions can be found in our brochure 'HB support structures'.



Double-girder crane ZHB

# ABUS HB-System

## Features you can use to the full



ABUS monorail



ABUS EHB single-girder crane



ABUS ZHB double-girder crane

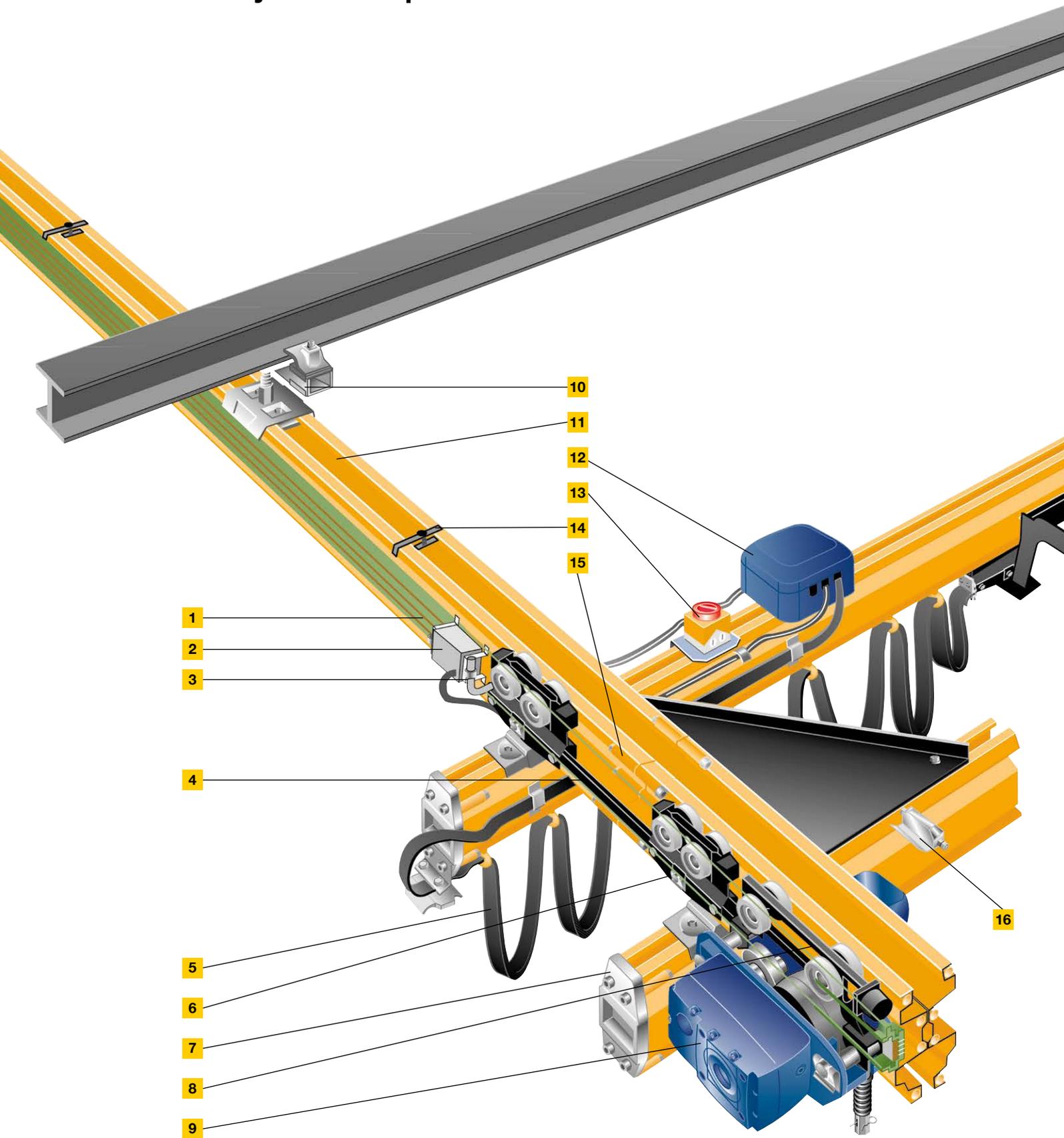
The practical design features of the ABUS HB-System bring perceptible benefits for users and their applications:

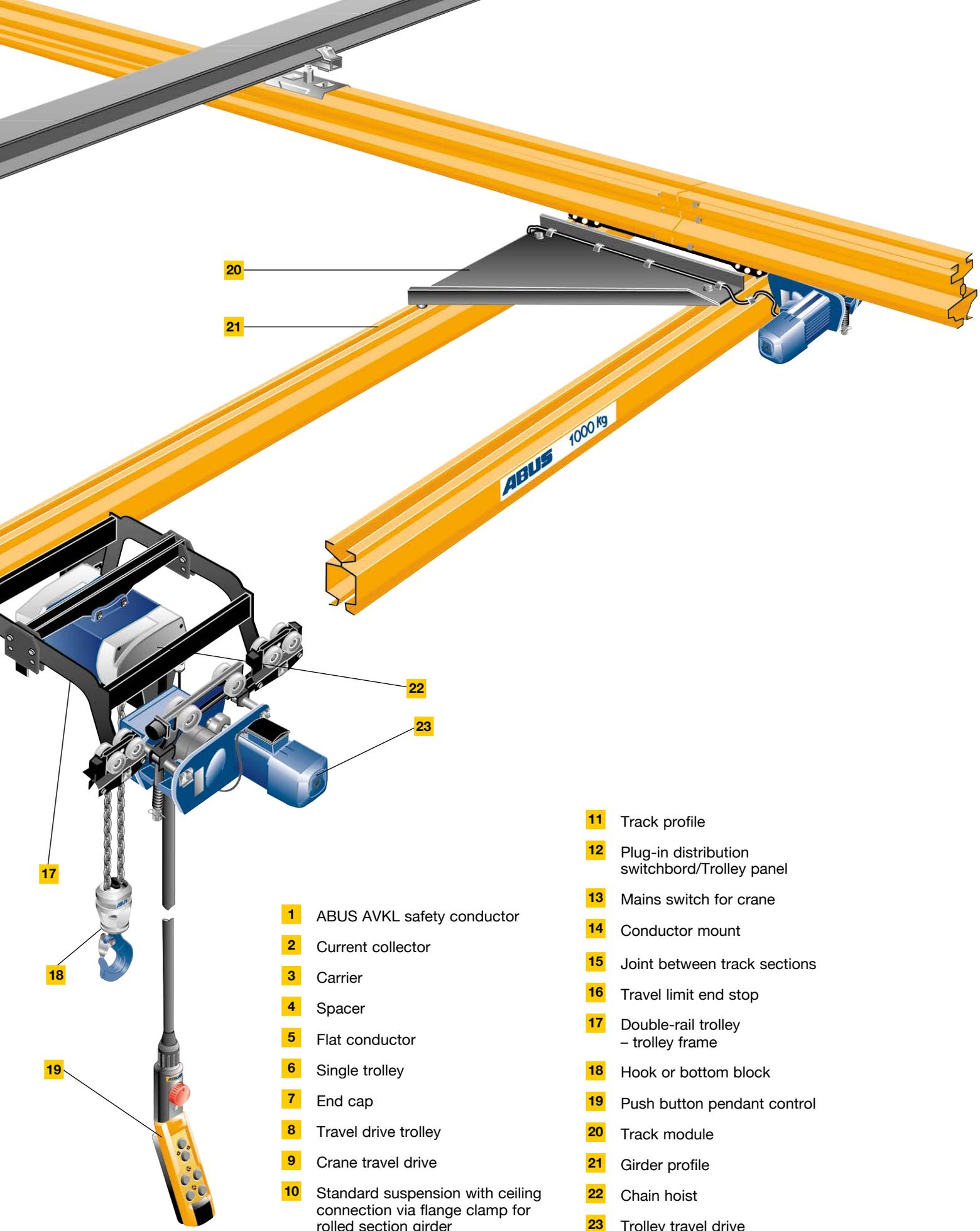
- With its modular design, the system can simply be tailored to provide cost-effective solutions for users' applications.
- A wide variety of suspension designs are available, permitting installation in conditions which you would scarcely have thought possible.
- Load capacities can be defined in accordance 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 double-rail track, ZHB, ZHB-X, ZHB-I 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 updated efficiently and cost-effectively.

# ABUS HB-System - Product Range

Movement	Design	Illustration	Capacity	Max. crane girder length
Linear transport	Monorail track		to 2.000 kg	-
	Double-rail track		to 2.000 kg	-
Comprehensive transport	Single-girder crane EHB		to 500 kg	10,0 m
			800 kg	10,0 m
			1.000 kg	9,0 m
			1.250 kg	3,3 m
	Single-girder crane EHB-X (stooled up crane)		to 500 kg	8,0 m
			800 kg	8,0 m
			1.000 kg	7,3 m
	Single-girder crane EHB-I (on crane track made of rolled profiles)		to 500 kg	10,0 m
			800 kg	10,0 m
			1.000 kg	9,0 m
	Double-girder crane ZHB		to 1.000 kg	12,0 m
			1.600 kg	10,3 m
			2.000 kg	8,9 m
	Double-girder crane ZHB-X (stooled up crane)		to 1.000 kg	8,0 m
			1.600 kg	7,0 m
			2.000 kg	7,0 m
	Double-girder crane ZHB-I (on crane track made of rolled profiles)		to 1.000 kg	12,0 m
			1.600 kg	10,3 m
			2.000 kg	8,9 m
	Double-girder crane ZHB-3 (crane on three-track runways)		to 250 kg	22,0 m
500 kg			21,0 m	
800 kg			21,0 m	
1.000 kg			15,0 m	

# HB-System components





- 1** ABUS AVKL safety conductor
- 2** Current collector
- 3** Carrier
- 4** Spacer
- 5** Flat conductor
- 6** Single trolley
- 7** End cap
- 8** Travel drive trolley
- 9** Crane travel drive
- 10** Standard suspension with ceiling connection via flange clamp for rolled section girder

- 11** Track profile
- 12** Plug-in distribution switchboard/Trolley panel
- 13** Mains switch for crane
- 14** Conductor mount
- 15** Joint between track sections
- 16** Travel limit end stop
- 17** Double-rail trolley – trolley frame
- 18** Hook or bottom block
- 19** Push button pendant control
- 20** Track module
- 21** Girder profile
- 22** Chain hoist
- 23** Trolley travel drive

# ABUS HB-System Keeping a high profile

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



## Distinctive features:

### enclosed-track profiles

The entire load range of ABUS HB-System up to 2000 kg is covered by three profile types. 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.



## 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

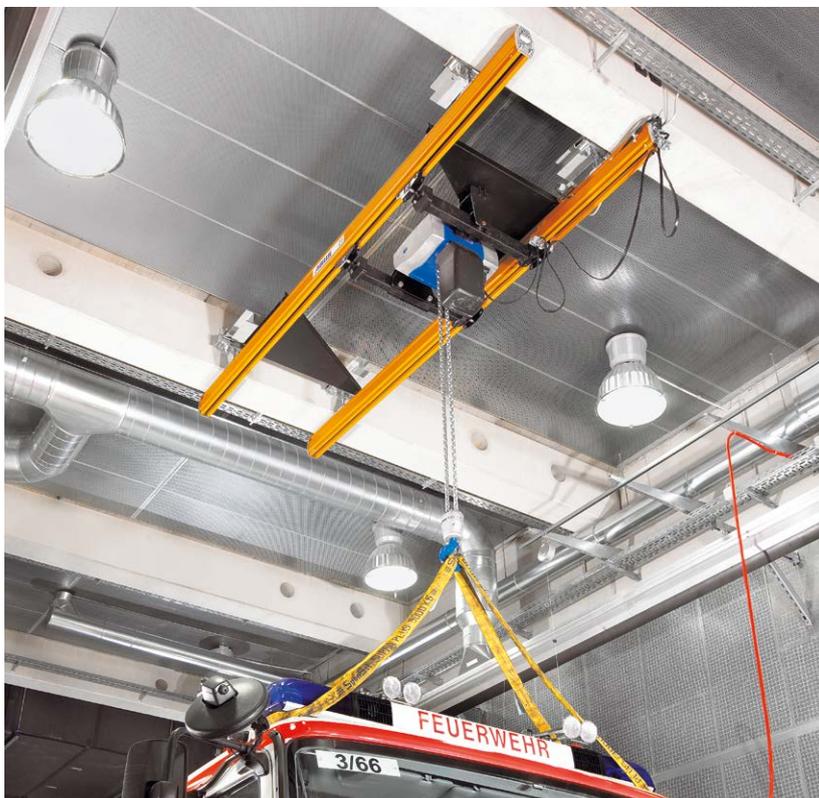
## Variations on a powerful theme



### ABUS 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 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 HB-System

## Variations on a powerful theme

### ABUS EHB single-girder crane



#### Area 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 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 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

## Variations on a powerful theme

### ABUS single girder rolling beam crane system EHB-I



#### Area coverage

**Load capacity: up to 1 t**

**Crane girder length: up to 10 m**  
(depending on load capacity)

- Very low self weight, ideal for lightweight construction buildings
- easy to move manually
- standard 'I' beams utilised as downshop crane tracks
- favourable approach dimensions



### ABUS double girder rolling beam crane system ZHB-I



#### Area coverage

**Load capacity: up to 2 t**

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

- High load capacity
- Particularly favourable hook heights due to the arrangement of the chain hoist stooled up
- standard 'I' beams utilised as downshop crane tracks
- Electrically powered motions (Option)
- 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.

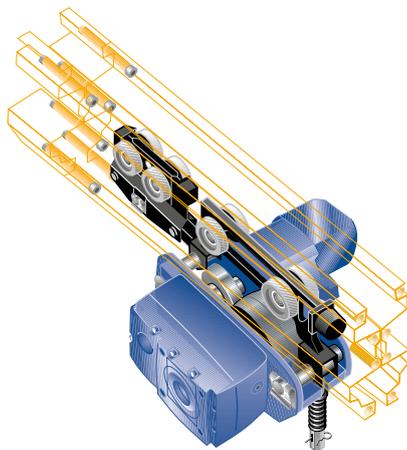
The motor and the gear unit are of modular design, allowing us to produce a wide variety of versions for lifting speeds up to 20 m/min and FEM groups up to 4 m at attractive prices.

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.

## Further product information...

... regarding the ABUS light crane systems and our entire product range can be forwarded to you on request. They are also available to view and download directly from our homepage.



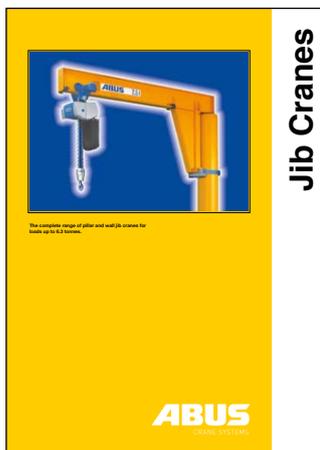
ABUS Image brochure



The product overview



HB support structures



Jib cranes



Mobile gantries



Electric chain hoists

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