



# ALUMINIUM LIGHT CRANE SYSTEM ***LiFT LiNE***





## WHY ALUMINUM CRANE RAILS?

The use of aluminum crane rails offers numerous advantages, particularly in terms of weight, ergonomics and handling. The PXH aluminum crane rails in the PLANETA *LiFT LiNE* series have been specially developed to meet modern requirements for efficiency and user-friendliness.

### 1. LIGHTER WEIGHT

Aluminum is only about 35% the weight of steel, which significantly reduces the overall load of the crane system. This not only makes assembly and installation easier, but also reduces the load on the supporting structures.

### 2. SMOOTH RUNNING & ERGONOMICS

A lighter crane system means less effort is required to move loads. This makes work more pleasant, reduces fatigue and is easier on the health – a decisive advantage for ergonomic workplaces.

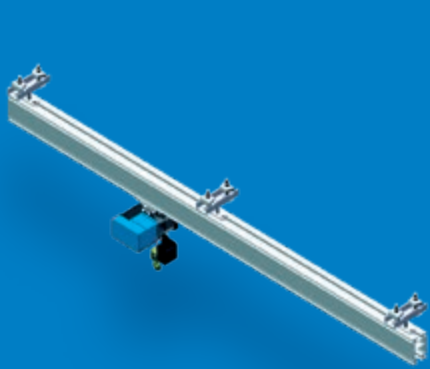
### 3. EASIER HANDLING & EFFICIENCY

The lower weight means that aluminum crane rails can be controlled more precisely and more easily, which increases efficiency and safety during operation. They are also corrosion-resistant, which extends their service life and reduces maintenance.

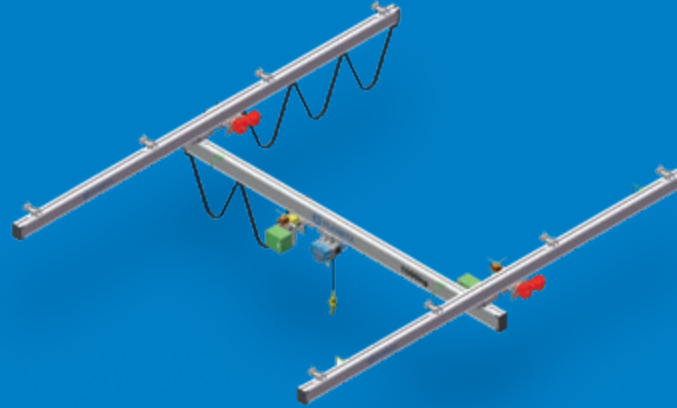
VERSATILE MODULAR SYSTEM FOR NUMEROUS APPLICATIONS

## ***LiFT LiNE* MODEL OVERVIEW**

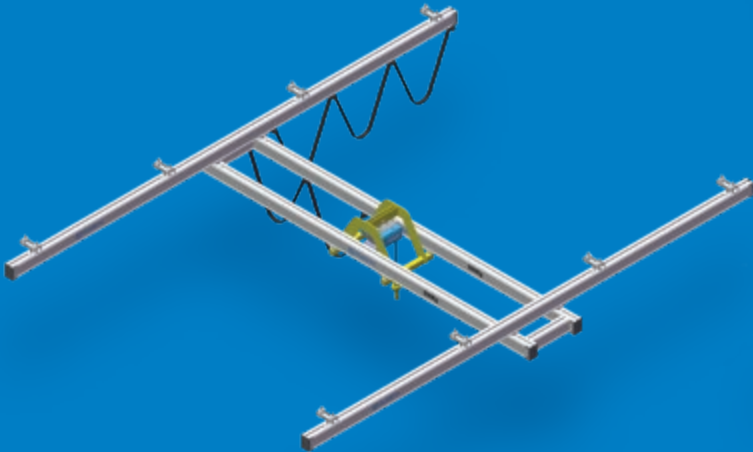
The PLANETA *LiFT LiNE* rail system is a flexible solution for a wide range of industrial requirements. The modular system makes it individually adaptable and expandable, making it ideal for a variety of applications.



***LiFT LiNE* MONORAIL SYSTEM**



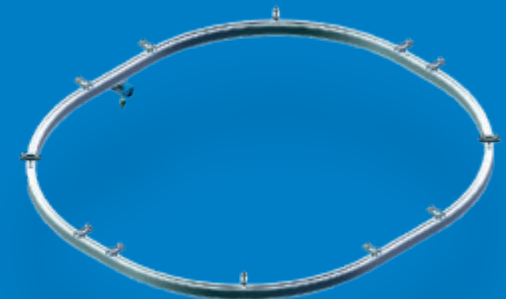
***LiFT LiNE* SINGLE-GIRDER SYSTEM**



***LiFT LiNE* DOUBLE-GIRDER SYSTEM**



***LiFT LiNE* EXTENSION SYSTEM**



***LiFT LiNE* ANNULAR SYSTEM**

### **MODULARITY & ADAPTABILITY**

#### **1. Flexible application options**

- Connect two workstations or completely cover entire production areas.
- Use in factories, production lines, assembly lines and demanding environments.

#### **2. Easy expansion & customization**

- Special load handling devices and end connectors allow the system to be customized.
- Modular design enables quick integration and expansion without major reconstruction.

#### **3. High load capacity & safety**

- Designed for loads up to 2,000 kg.
- Robust construction ensures high reliability and durability.

# OPTIMIZED COMPONENTS FOR MAXIMUM EFFICIENCY AND SAFETY

The PLANETA *LiFT LiNE* crane system is equipped with a range of well-thought-out components that ensure a stable, safe and durable construction. Each of these components contributes to the efficiency and ergonomics of the entire system.

## 0° OR 90° TRACK SUSPENSION

- 90° suspension: a stable, movable construction.
- 0° suspension: used especially for jib cranes.

## END CAP

- Ensures a secure closure of the crane rail and protects it from damage.

## END STOP – MAXIMUM SAFETY & PRECISION

- Prevents the crane from traveling off the end of the crane runway – increases operational safety.

## CABLE TROLLEY – RELIABLE CABLE ROUTING

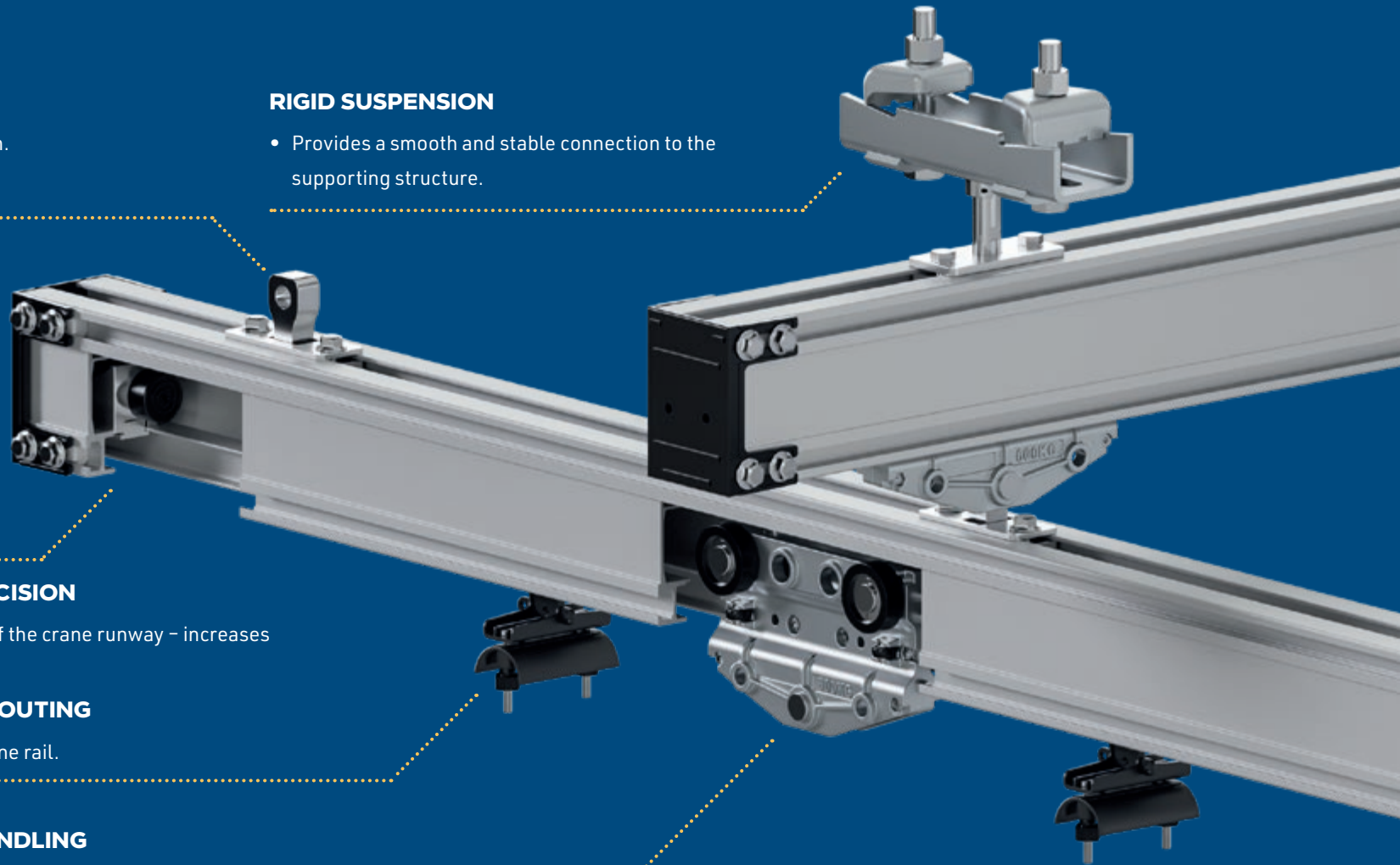
- Efficient transportation of cables along the crane rail.

## SINGLE TROLLEY – PRECISE LOAD HANDLING

- Ideal for light applications that require precise control.

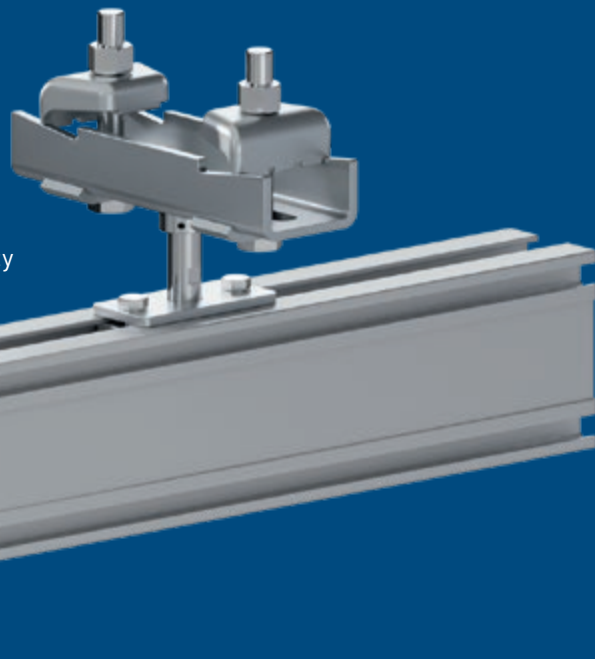
## RIGID SUSPENSION

- Provides a smooth and stable connection to the supporting structure.



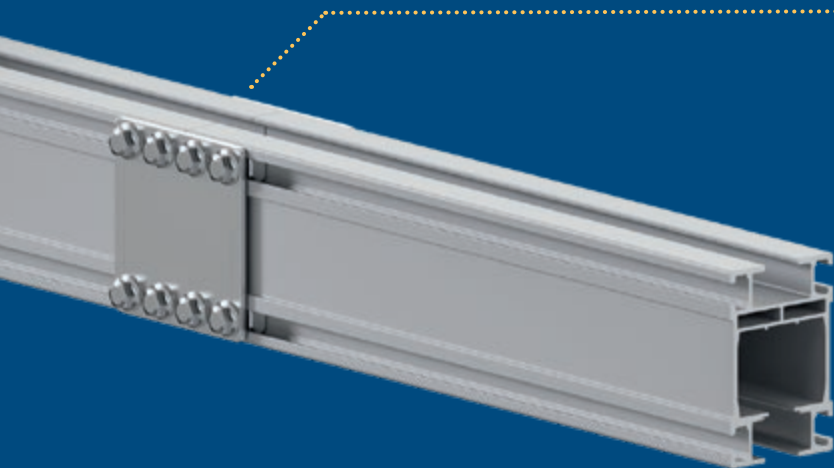
**ALUMINUM TRACK PROFILE –  
MAXIMUM STABILITY AND  
PRECISION**

- Developed for loads of up to 2,000 kg and large spans without losing stability



**PROFILE CONNECTORS – SEAMLESS EXTENSION OF  
THE RUNWAY**

- Stable connection of the rails for individual adjustment of the crane runway.
- Smooth passage of the trolley over the connection area.

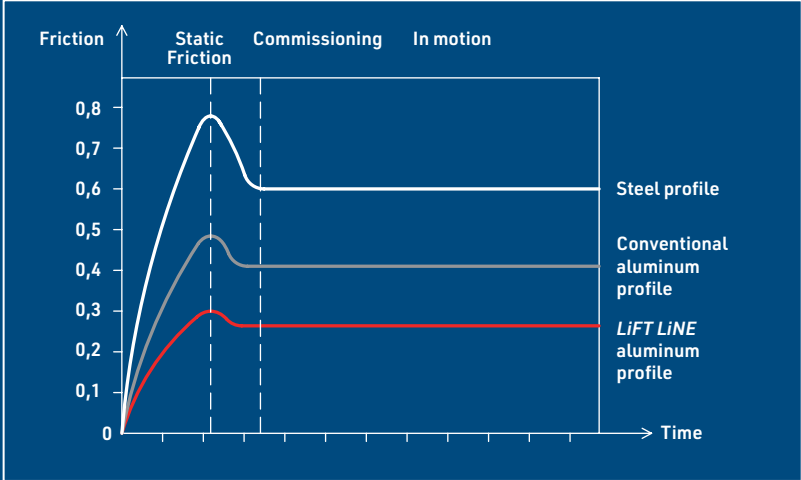
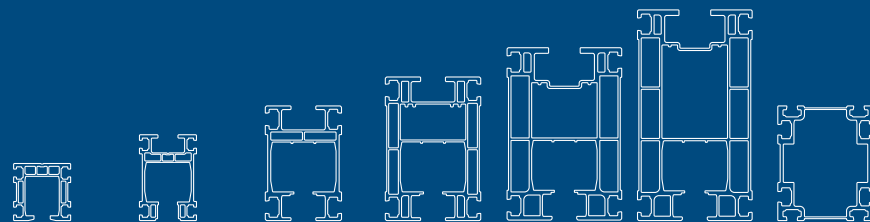
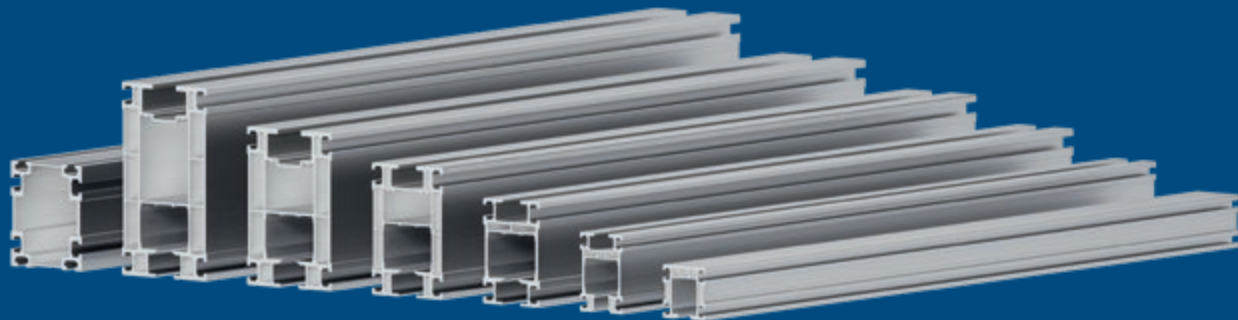


# ALUMINUM CRANE SYSTEM PLANETA *LIFT LINE*

The PLANETA *LiFT LiNE* aluminum crane system offers a powerful and ergonomic solution for a wide range of applications in industry and production. Thanks to high-quality materials and precise manufacturing, it meets the highest safety and quality standards.

## KEY FEATURES & BENEFITS

- European development – Designed to the highest technical standards.
- 6 aluminum rail series – Optimized for different load capacities.
- Load capacity from 40 kg to 2,000 kg – Versatile for light to heavy duty applications.
- External testing & safety factor of 6 – All components tested and extremely resilient.
- High-quality surface finish – Anodized, hardened, blasted & calibrated for maximum durability.



Aluminium track profile		PXH06	PXH09	PXH12	PXH15	PXH18	PXH22	Reinforcement
Profile height	mm	60	90	120	150	180	220	120
Profile width	mm	60	60	80	100	120	120	100
Weight L =1,000 m	kg/m	2.6	3.1	4.8	7.3	10.7	12.1	6.1
Weight L =2,000 m	kg/m	5.2	6.2	9.6	14.6	21.4	24.2	12.2
Weight L =3,000 m	kg/m	7.9	9.3	14.4	21.9	32.1	36.3	18.3
Weight L =4,000 m	kg/m	10.5	12.4	19.2	29.2	42.8	48.4	24.4
Weight L =5,000 m	kg/m	13.1	15.5	24	36.5	53.5	60.5	30.5
Weight L =6,000 m	kg/m	15.7	18.6	28.8	43.8	64.2	72.6	36.6
Weight L =7,000 m	kg/m	-	-	-	51.1	74.9	84.7	42.7
Weight L =8,000 m	kg/m	-	-	-	58.4	85.6	96.8	48.8
Weight L =9,000 m	kg/m	-	-	-	-	-	108.9	-
Weight L =10,000 m	kg/m	-	-	-	-	-	121	-
Moment of plane area (Iy/Iz)	cm <sup>4</sup> /cm <sup>4</sup>	43.1 / 39.7	103 / 85	269 / 139	657 / 307	1,590 / 498	2,541 / 794	-
Moment of resistance (Wy/Wz)	cm <sup>3</sup> /cm <sup>3</sup>	13.3 / 13.2	22.6 / 16.3	52.6 / 34.9	108 / 69	198 / 119	232 / 132	-





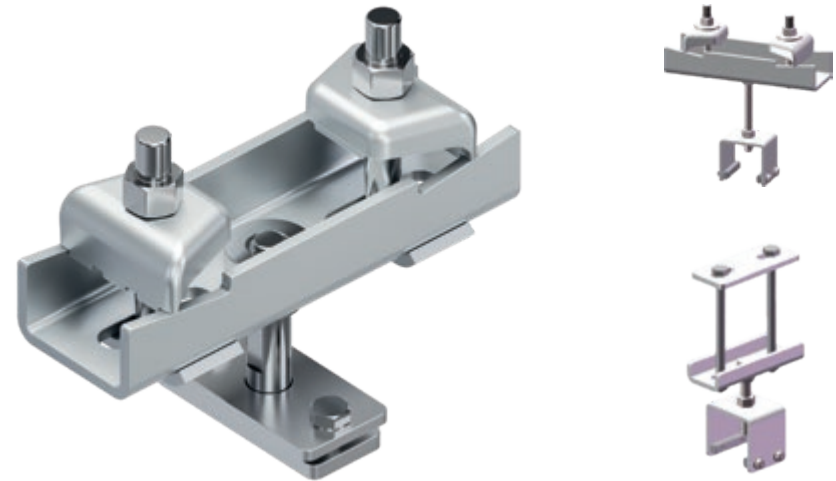
## RIGID SUSPENSION AND CONNECTING ELEMENTS FOR MAXIMUM STABILITY



The PLANETA *LiFT LiNE* crane system offers high-quality suspension and connection solutions to enable stable, safe and adaptable assembly.

### RIGID SUSPENSION – FLEXIBLE AND SECURE MOUNTING

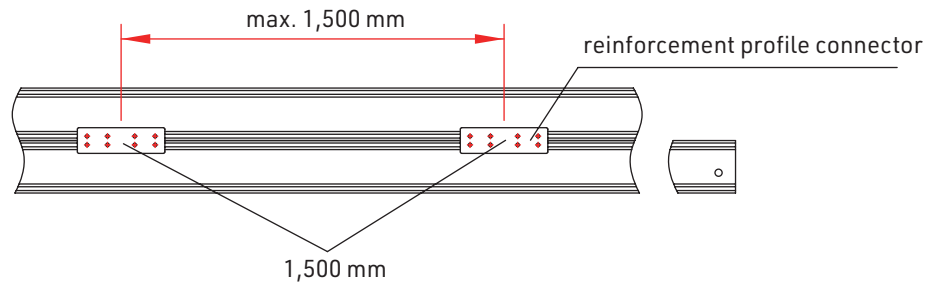
- Can be mounted on various carrier profiles – suitable for square tubes, I-beams, H-beams and other common profiles.
- High-strength forged aluminum frame – Safety factor of 6 for maximum load capacity.
- Height adjustment of  $\pm 20$  mm – Compensates for manufacturing and assembly tolerances of the steel structure.
- Three different suspension types – Suitable for flange widths from 65 mm to 200 mm.
- High load capacity – WLL (Working Load Limit) from 150 kg to 1,400 kg per suspension.



# CRANE RUNWAY SUSPENSION AND CONNECTING ELEMENTS FOR MAXIMUM STABILITY

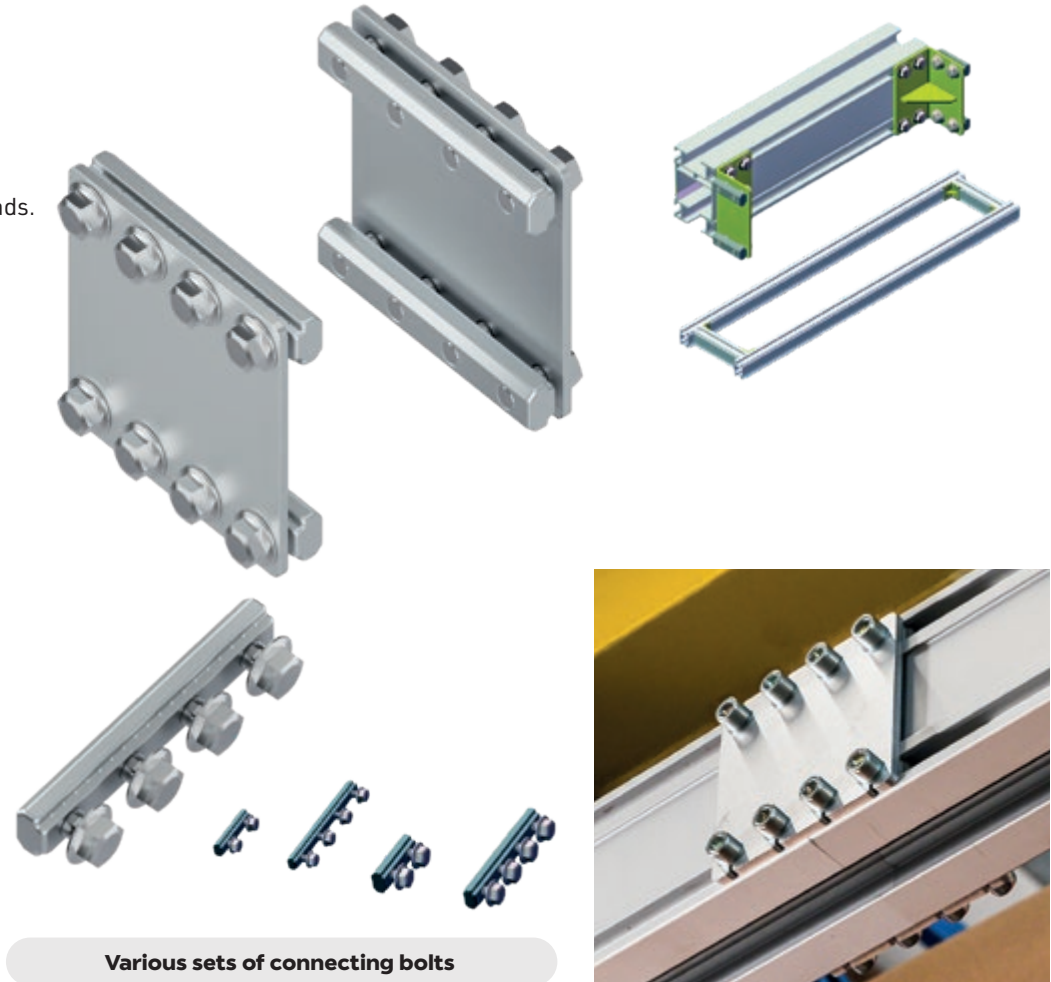
## CONNECTOR FOR REINFORCEMENT PROFILES & DOUBLE GIRDER CONNECTORS

- Secure connection between aluminum crane bridge and reinforcement profile.
- Maximum distance between connectors: 1.5 m – ensures high stability.
- Coupling of two individual crane bridges – conversion to a 2-beam crane bridge for higher loads.
- Length adjustment of the spacers – depending on the aluminum profile dimensions.



## JOINT BOLT SET – SECURE & STRONG CONNECTION

- Securely connects two PXH rails together.
- High-strength forged aluminum rod – Sits in the rail slots and provides extreme rigidity.
- Anodized aluminum plates – High corrosion resistance and durability.
- Flexible mounting point:
  - a) Must be mounted in a range of 1/10 of the rail hanger spacing.
  - b) Minimum distance: 200 mm, maximum 500 mm (extendable – standard threads in the aluminum rod allow the mounting of additional functional components).



## SINGLE TROLLEY

### PRECISION AND STABILITY IN THE PLANETA LIFT LINE CRANE SYSTEM



#### SINGLE TROLLEY – SMOOTH & EFFICIENT RUNNING

- High-quality wheels made from German material – Maximum durability and smooth running.
- Lateral guide rollers – Prevent the crane bridge from jamming and ensure smooth movement.
- Different load capacities – Individual loads of up to 750 kg for various applications.
- Minimal rolling resistance – Thanks to high-quality ball bearings for effortless movement.



Trolley with 4 rollers



Trolley with 8 rollers



# TRACK SUSPENSION, END CAP & CABLE CLAMP

## SECURE HOLD & EFFICIENT CONNECTION



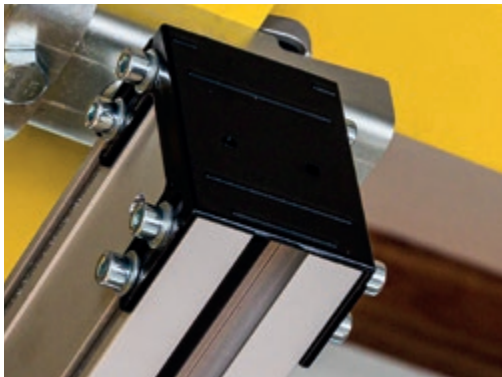
The PLANETA *LiFT LiNE* crane system offers well-thought-out solutions for stable suspension, secure end closures and efficient cable routing that ensure safe operation and longevity of the system.

### RAIL SUSPENSION – FLEXIBLE & HIGHLY SECURE MOUNTING

- 90° type for the crane girder.
- 0° type for the telescopic girder. Versatile application – Can accommodate single trolleys or crossbeams for two trolleys
- Extremely high safety – Cut from a solid steel plate, with a safety factor of 6

### END CAP & CABLE CLAMP – PROTECTION AND ORGANIZATION IN THE SYSTEM

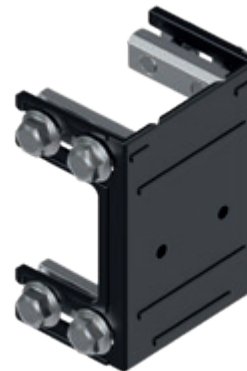
- Robust aluminum end cap – ensures a secure closure of the rail.
- Secure connection – via a special connection set without risk of falling.



Track suspension 0°



Track suspension 90°



End cap



Cable clamp

## END STOP

### MAXIMUM SAFETY & COLLISION PROTECTION



The end stop in the PLANETA *LiFT LiNE* crane system ensures reliable limitation of crane movement, increases system safety and prevents damage to the crane and structure.

#### KEY FEATURES & BENEFITS

- Maximum safety – The end cap is secured with 8 screw bolts and high-strength wrought iron.
- Integrated anti-collision block – Located in front of the end cap, it absorbs impact forces.
- Drilling plate & pin – Allow for customization to meet various needs.
- Optional external end buffer – Provides additional collision protection and further increases safety.



End Stop



Accessories

# DOUBLE TROLLEY, SPACING BEAM & MAINTENANCE STATION

## OPTIMIZED LOAD HANDLING & EASE OF MAINTENANCE



The PLANETA *LiFT LiNE* crane system offers intelligent solutions for handling heavy loads, avoiding collisions and ensuring efficient maintenance.

### DOUBLE TROLLEY & SPACING BEAM – PERFECT LOAD DISTRIBUTION

- **Single trolley:** for beams up to 6 m long and a maximum load of 750 kg.
- **Twin trolley with spacing beam:** Required for beams  $\geq 6$  m or loads over 750 kg.  
Compatible with single & double girder cranes – Flexible for various crane systems.
- **Spacing beam for multiple girders:** Prevents collisions when multiple girders are on the same runway. Standard length: 500 mm.



Double trolley



Spacing beam

### MAINTENANCE STATION – SIMPLIFIED MAINTENANCE

- Makes it easier to replace individual trolleys. If a center trolley needs to be removed, this can be done without dismantling the other trolleys.
- Ideal for long profiles with multiple trolleys.



### AIR HOISTS CONNECT PLANK – SECURE ATTACHMENT

- Air hoists are attached to the trolley with a special connecting beam.
- Precisely tailored production – Please provide the dimensions or type of hoist before ordering.



## DOUBLE-GIRDER SUSPENSION BRACKET & CURVED RAIL

### FLEXIBLE SOLUTIONS FOR SPECIAL REQUIREMENTS

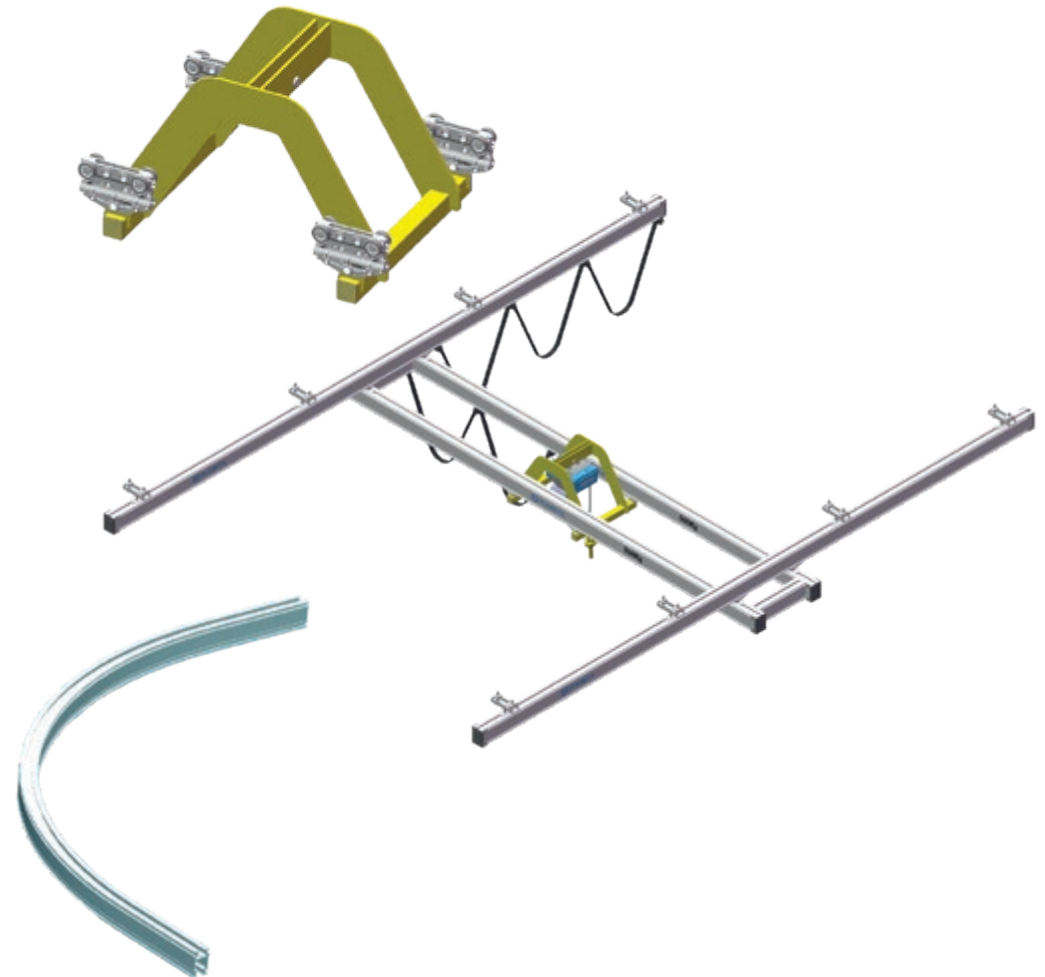
The PLANETA *LiFT LiNE* crane system offers versatile solutions for the suspension of load handling attachments and curved rails, enabling optimal use of space.

#### DOUBLE-GIRDER SUSPENSION BRACKET – SECURE ATTACHMENT FOR HOISTS

- Ideal for chain hoists, air hoists & balancers – secure hold for various load handling attachments.
- Two load capacities available:
  - a) 1 t variant for lighter applications.
  - b) 2 t variant for heavier loads.
- Standard gauge: 500 mm – adaptations are possible on request.

#### CURVED PXH RAIL – EFFICIENT USE OF SPACE

- Standard radius: 2000 mm – Other radii available on request.
- Enables customized crane layouts – Optimal adaptation to narrow or angled work areas.





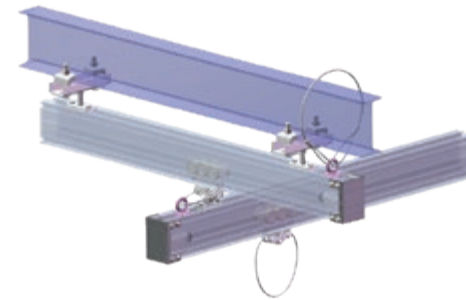
The PLANETA *LiFT LiNE* crane system offers a safe and flexible solution for a wide range of applications thanks to its safety mechanisms, lifting units and optimized power supply.

### SAFETY DEVICES – PROTECTION FOR CRANE SYSTEM & LOADS

#### Three types available:

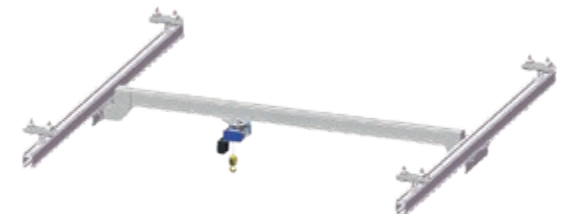
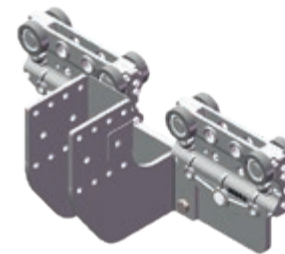
- Protection against the rail falling from the suspension beam.
- Prevention of the beam falling from the rail.
- Securing the load against falling from the trolley.

**Increased operational safety – protection against material & personal injury.**



### ELEVATION UNIT – MORE GROUND CLEARANCE & FLEXIBLE DESIGN

- Enables the crane bridge to be raised – Perfect when space is limited or for more ground clearance.
- Available for single & double-girder cranes – Can be adapted to different crane systems.



## POWER SUPPLY

### EFFICIENT ENERGY SUPPLY FOR CRANE SYSTEMS

#### TWO OPTIONS FOR CABLE ROUTING:

- Inside the rail (integrated cable routing).
- Inside a C-rail, parallel to the crane runway.

#### The following components are required for C-rail systems:

Support bracket, suspension bracket, rail connection, cable clamp, cable trolley, cable, buffer & end cap.

#### CABLE TROLLEY



Cable trolleys in various designs



Integrated power supply



Power supply with C-rail

#### CABLE



Cable design: round/flat

## POWER SUPPLY

### EFFICIENT ENERGY SUPPLY FOR CRANE SYSTEMS



#### BUSBAR SYSTEM – COMPACT & RELIABLE POWER TRANSMISSION

- Standard: VAHLE U 10 conductor rail – Mounted on the side wall of the rails.
- Compact construction & aesthetic design – Suitable for all rail types.



#### MAIN ISOLATOR – POWER SWITCH FOR ELECTRIC HOISTS

- Serves as a central disconnecting device for the electric hoist.
- Increases safety during maintenance and operation.
- Includes mounting plate as standard – for easy installation.



## ENERGY BY HOSE

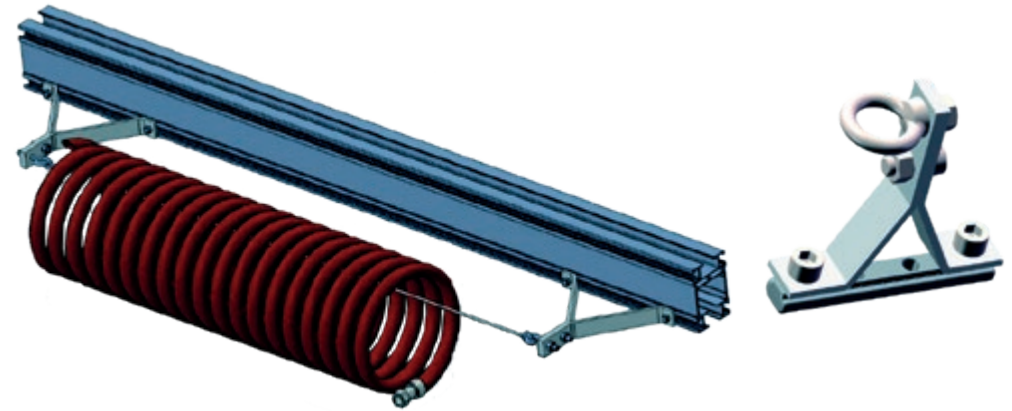
### EFFICIENT & SAFE ENERGY SUPPLY



The PLANETA *LiFT LiNE* crane system offers flexible solutions for energy transmission, especially for pneumatic tools, balancers and electric hoists.

#### **ENERGYBY HOSE – IDEAL FOR PNEUMATIC TOOLS AND BALANCERS, HOSE GUIDE –**

- wrapped around a wire rope for a flexible energy supply.
- Attachment using mounting sets to ensure secure guidance.



# LOCKING DEVICE FOR EXTENSION CRANE & ELECTRIC DRIVE

## PRECISION & EFFICIENCY



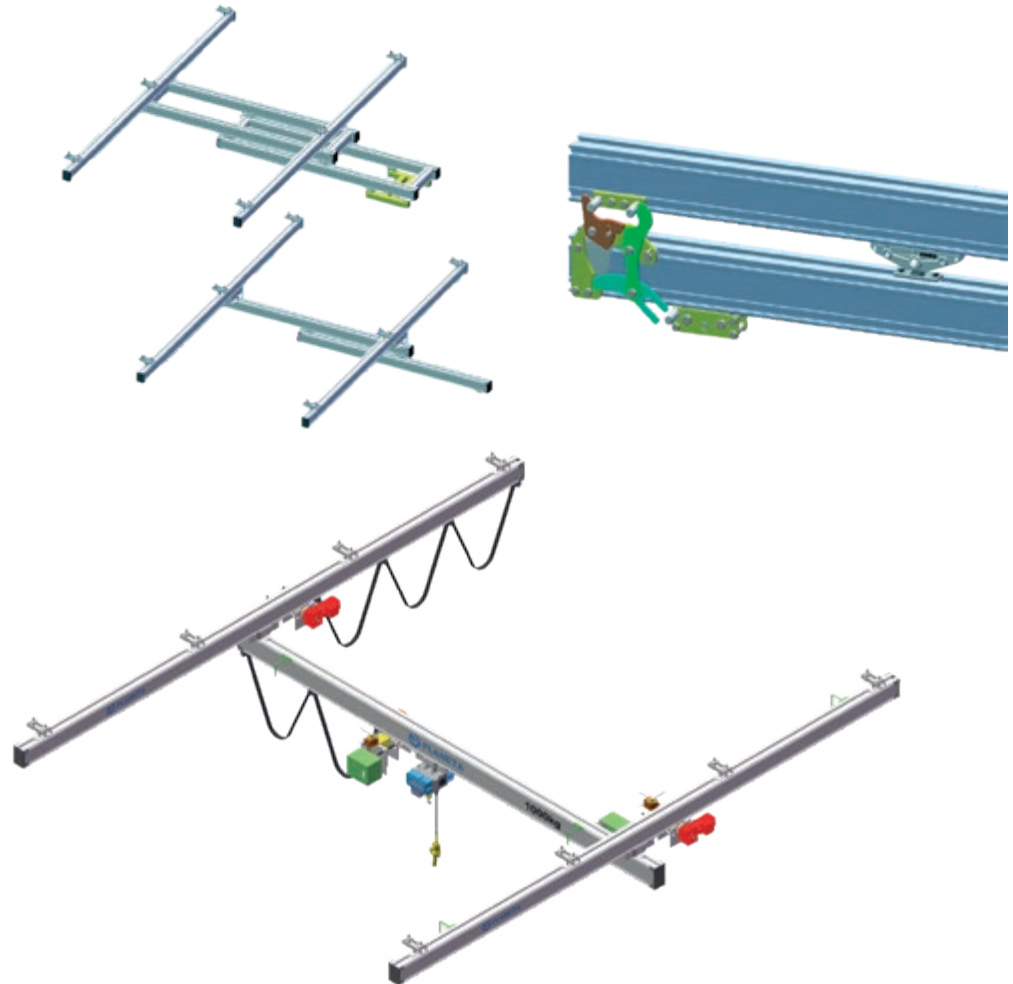
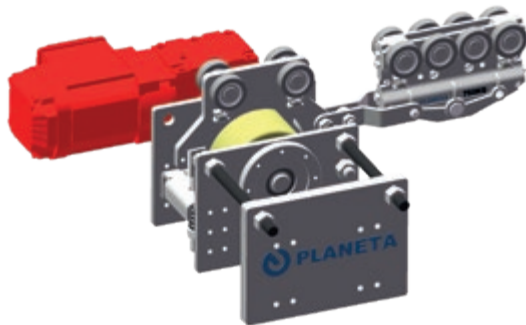
The PLANETA *LiFT LiNE* crane system offers an intelligent solution for extension crane applications using a patented locking device and a powerful electric drive applications.

### LOCKING DEVICE FOR EXTENSION CRANE – STABILITY & SAFETY

- Fixation of hoist at rail end with lower rail extended.
- Securing upper & lower rail in retracted position.
- Patented design (patent no.: ZL2019212201440) – high performance & reliability.
- Available for single & double girder telescopic crane.
- Double girder with integrated balance beam required as end girder.
- Maximum jib length:  $\leq 40\%$  of girder length – Optimum stability.

### ELECTRIC DRIVE – EFFICIENT & PRECISE TRAVEL

- Frequency-controlled travel motors for all rail types.
- Standard travel speed: 5/20 m/min – Customizable for various applications.



# PLANETA *LiFT LiNE* LIFTING AXLE UNIT

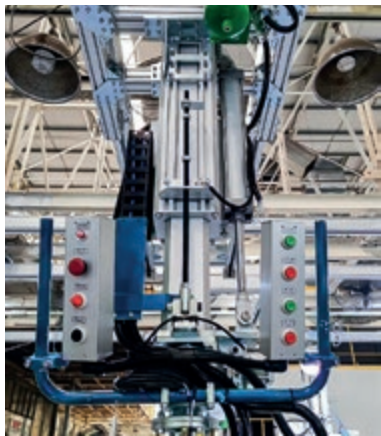
## PRECISE AND EFFICIENT LIFTING MOTION



The PLANETA lifting axis unit optimizes the vertical lifting process, ensures a shorter working time and enables precise movements.

### FEATURES & STRENGTHS

- Modular design – flexible adaptation to different applications.
- Three series to choose from – individual solutions for different requirements.
- Maximum torque: up to 2,500 Nm – powerful performance for demanding lifting operations.
- Compact & low maintenance design – Durable & efficient.
- Flexibility for various lifting devices – Can be used with different tools & slings.
- Customized flange sizes – Fits specific requirements.



Item	Series	Type	Max. Torque Nm	Max. Lifting height mm
1	HS	S2	600	2.000
1	HS	S3	600	3.000
2	HM	M2	1.200	2.000
2	HM	M3	1.200	3.000
3	HL	L2	2.500	2.000
3	HL	L3	2.500	3.000

# PLANETA LiFT LiNE-INQUIRY FORM

## 1. Crane system LiFT LiNE:

☐ Single beam hanging crane ☐ Double beam hanging crane ☐ Hanging track

Capacity \_\_\_\_\_ kg Baem length \_\_\_\_\_ mm Track length \_\_\_\_\_ mm

Span = \_\_\_\_\_ mm Room height \_\_\_\_\_ mm Required lifting height \_\_\_\_\_ mm

## 2. Hanging fixture:

Aufhängart ☐ Short, swinging ☐ Distanced, swinging = \_\_\_\_\_ mm ☐ Rigid

Ceiling construction ☐ Concrete, ceiling ☐ Steel beam ☐ Wooden truss

Hanging gap ☐ variable ☐ actual = \_\_\_\_\_ mm

## 3. Movements:

Trolley movement (diagonal) ☐ manual ☐ electric ☐ 1 speed ☐ 2 speeds ☐ \_\_\_\_\_ m/min

Crane movement (longitudinal) ☐ manual ☐ electric ☐ 1 speed ☐ 2 speeds ☐ \_\_\_\_\_ m/min

## 4. Hoist:

☐ Electric chain hoist ☐ Manual chain hoist

Type \_\_\_\_\_ Capacity \_\_\_\_\_ kg

Lifting speed ☐ 1 speed ☐ 2 speeds ☐ \_\_\_\_\_ m/min

Lifting height (Standard 3 m) \_\_\_\_\_ m Period of use/day \_\_\_\_\_ hour

## 5. Control / Electric:

Control ☐ Bedienung von Steuerschalter Elektrozug

☐ Idealsteuerung (Steuerschalter unabhängig verschiebbar)

Power type ☐ 3 Ph., 400 V, 50 Hz ☐ 1 Ph., 230 V, 50 Hz ☐ \_\_\_\_\_ V \_\_\_\_\_ Hz

Longitudinal power supply ☐ without ☐ Trailing cable ☐ C-Rail ☐ Conductor rail

Diagonal power supply ☐ without ☐ Trailing cable ☐ C-Rail ☐ Conductor rail

## 6. Crane location:

☐ Factory ☐ Outdoors ☐ Close to acids/bases

## 7. Installation:

☐ by PLANETA ☐ By the customer ☐ Forklift available on-site

## 8. Additional technical specifications/customer requests:

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## 9. Requested quote:

☐ Quick quote ☐ Budget price ☐ Quote by \_\_\_\_\_ by \_\_\_\_\_

☐ Detailed quote ☐ Time of implementation or delivery date

## 10. Attachments:

☐ Sketch ☐ Plot/Draft version

## 11. Address:

Company

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Contact person

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Address / Country

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Phone

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E-Mail

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Company stamp / Signature

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