

Realization of 3D Handling

KITO LIGHT CRANE **PROSYSTEM**



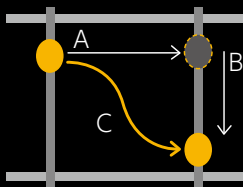
KITO LIGHT CRANE PROSYSTEM

Light and Smooth Movement

Due to the adopt of Aluminum rails, the pull force is much lighter than steel rails

Improvement in Productivity

By 3D movements based on ergonomics, high operability is achieved.



Easy Installation

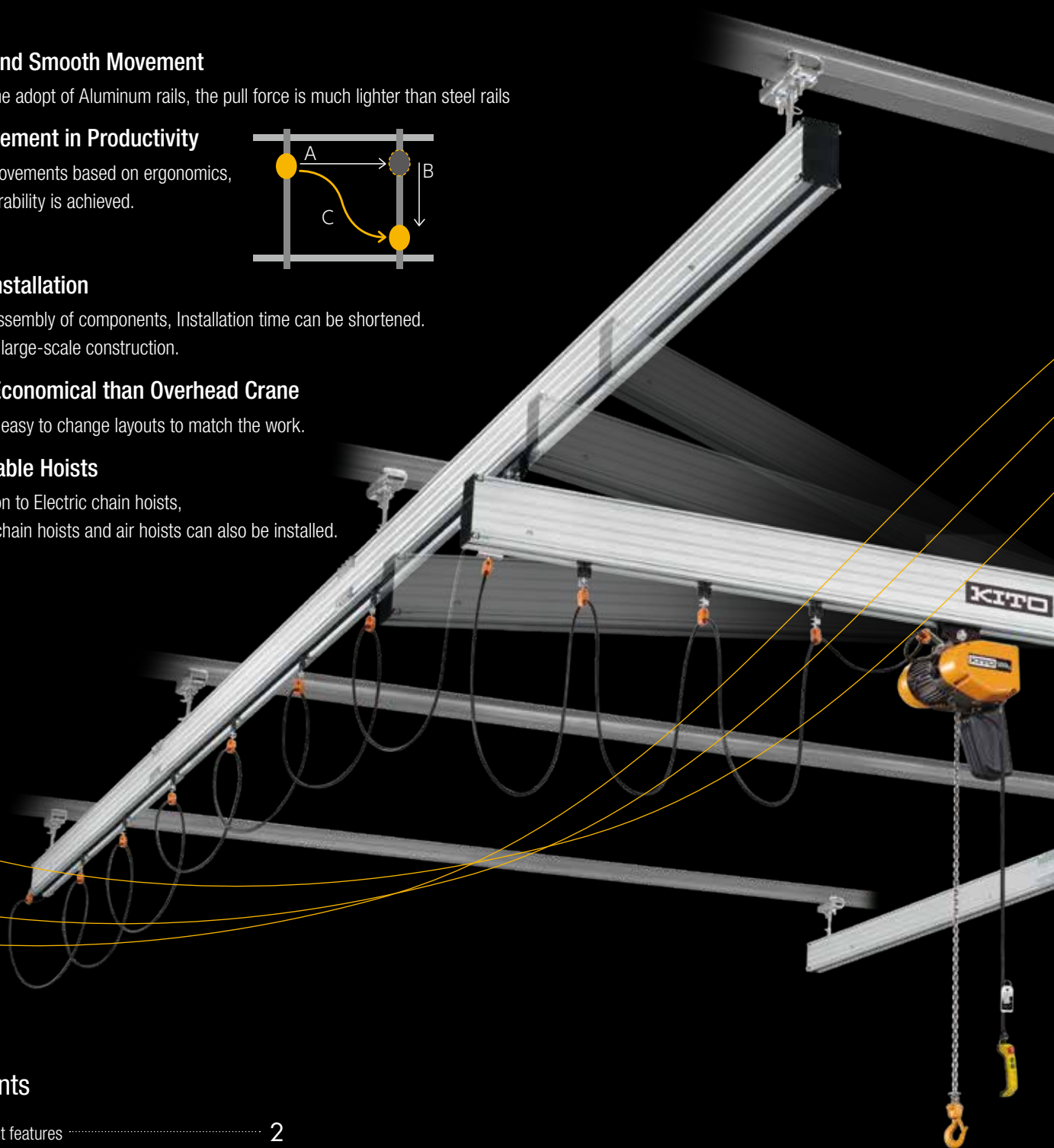
Due to assembly of components, Installation time can be shortened.
No need large-scale construction.

More Economical than Overhead Crane

It is very easy to change layouts to match the work.

Selectable Hoists

In addition to Electric chain hoists,
Manual chain hoists and air hoists can also be installed.



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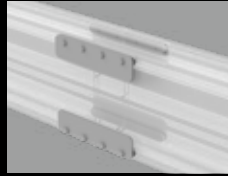
500kg

KITO 500kg

Main components

Joint set

For joining rails together. 4 bolts are used to join rails for 500kg capacity or less, and 8 bolts for more than 500kg capacity.

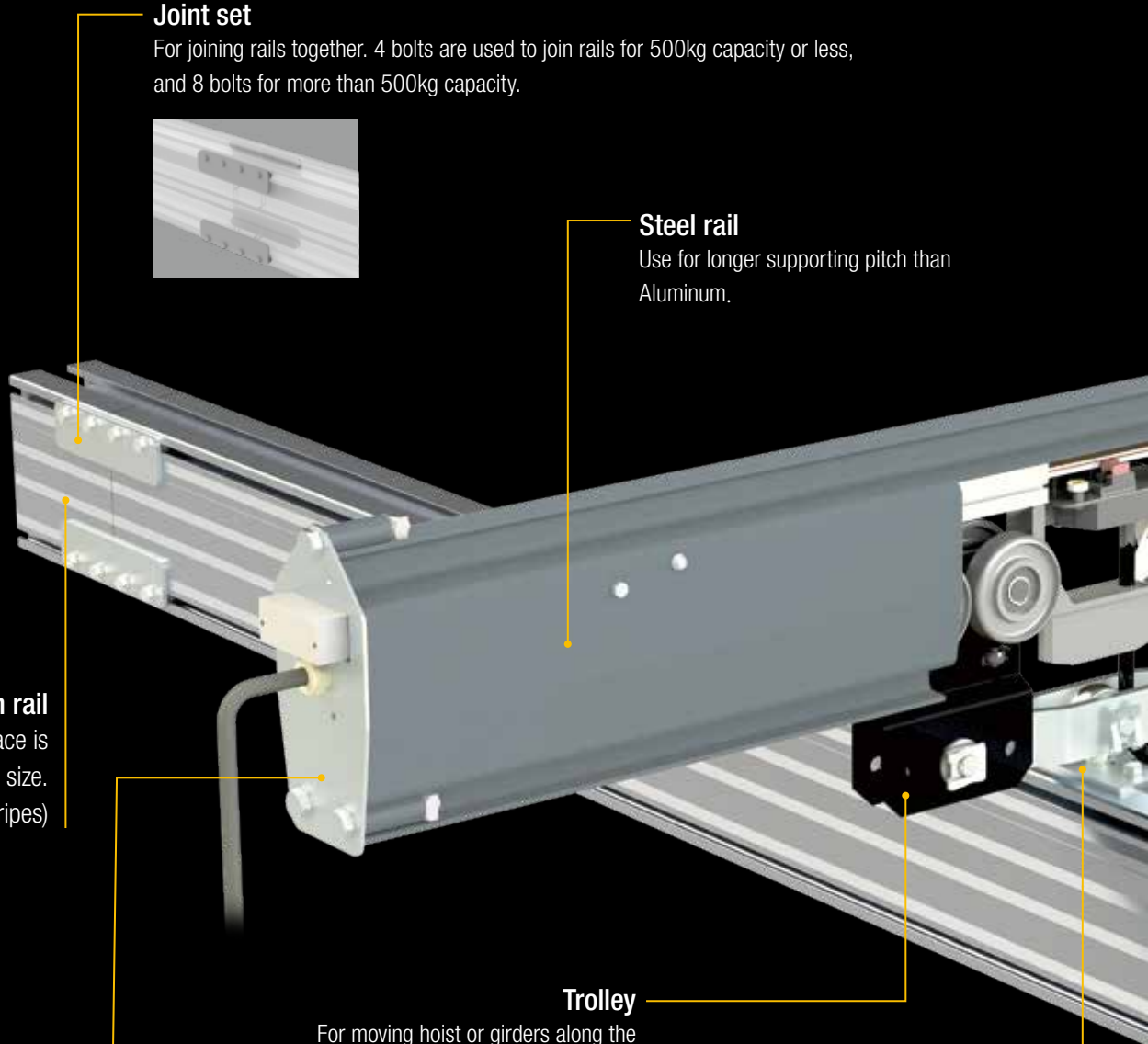


Steel rail

Use for longer supporting pitch than Aluminum.

Aluminum rail

The stripes on rail surface is same number as the rail size. (ALU4: 4 stripes)



Trolley

For moving hoist or girders along the traveling rails

End plate

Functions as a stopper to prevent the trolley from dropping off the rails.



For steel rails

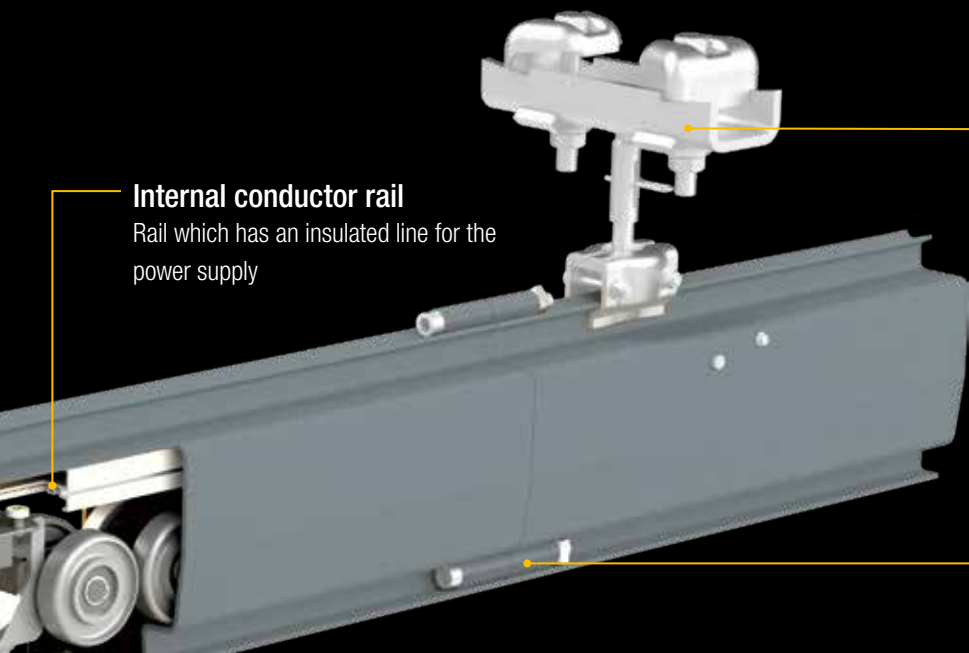


Single trolley (for steel rails)

Suspension for trolleys

Absorbs the force exerted by the rail movement.





Internal conductor rail

Rail which has an insulated line for the power supply

Suspension

For installing rails on the beam of buildings. Types are available matching the roof beam shapes.

Joint set

For joining rails together



For steel rails

Current collector

Use with trolley for internal conductor rails



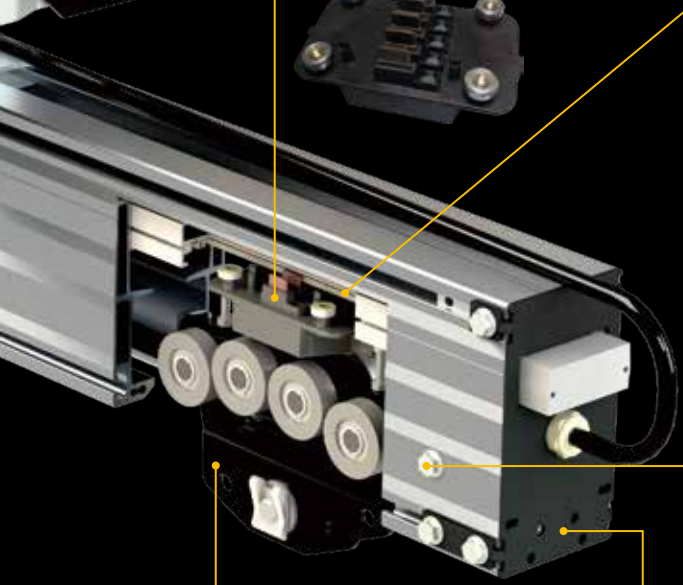
Internal conductor rail

The ALU4, ALU5, STL200 and STL260 rails offer a lineup with internal conductor rails.



Terminal box

Cable relay box



Bolt stopper

Stopper for trolley

Trolley

For moving hoists or girders along traveling rail



Single trolley
(for aluminum rails)

End plate

Prevent trolley from dropping off the rails



For aluminum rails

Cable hanger

For mounting power supply cables or air hoses



End clamp



3 types of cable hangers and end clamps are available. C: For chain hoists, A: For air hoists

Selection method/Procedures

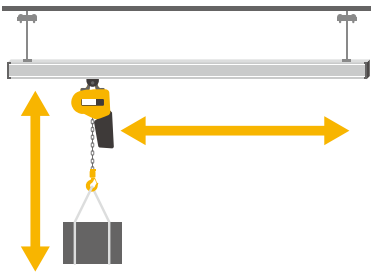
To safely realize efficient work, please select the light crane that best matches the work details and work location according to the following procedure.

1 Confirm the work details.

► Decide the type of crane.

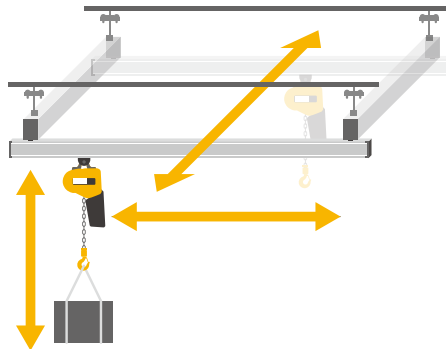
[Work scope]
Lifting/lowering and traversing?

Monorail

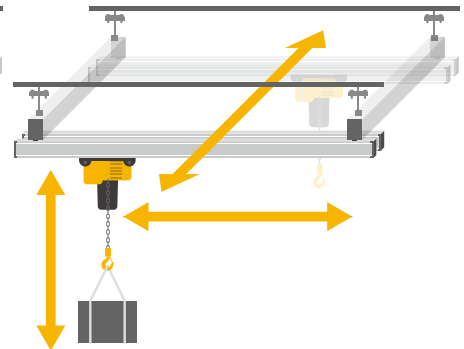


[Work scope]
Lifting/lowering, traversing and traveling?

Single girder crane



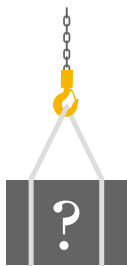
Double girder crane



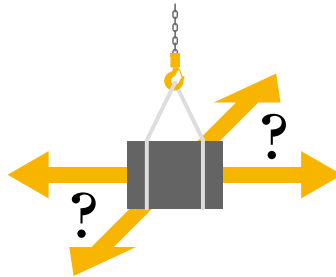
► Decide the type of rail.

For the rail selection, see page 8.

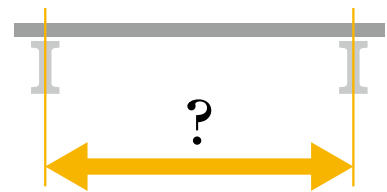
How much weight?



How long distances?

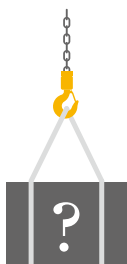


How long beam pitch?

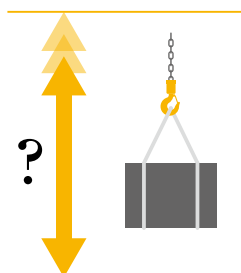


► Decide the type of hoist.

How much weight?



How many lift?



What power source?



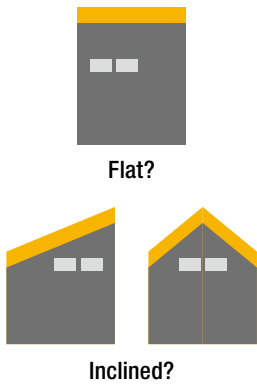
Electricity? Manual-powered? Air?

For the hoists, please inquire separately.

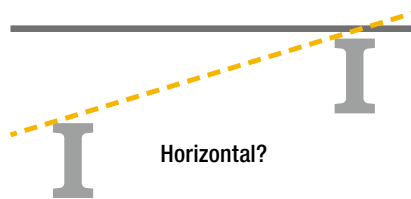
2 | Confirm the building.

► Decide the suspension. For the suspension selection, see page 11.

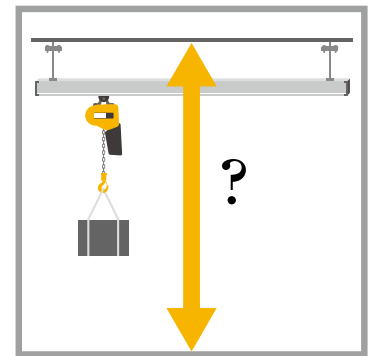
What shape is the ceiling?



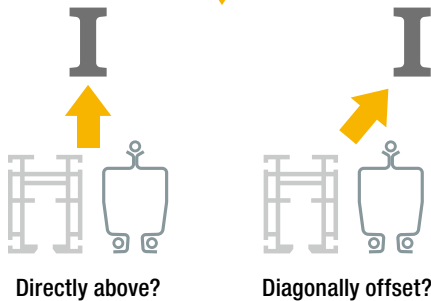
How about the beam?



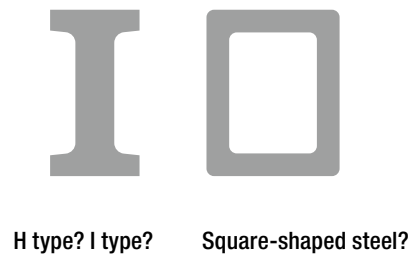
What is the height of the beam?



What is the position of the beam for the rail?

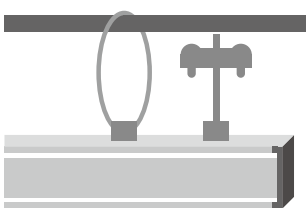


What type of roof beam?



3 | Other

► Need drop prevention equipment?



Available as option

* This is recommended when the usage conditions are severe.

► Decide the power supply method.

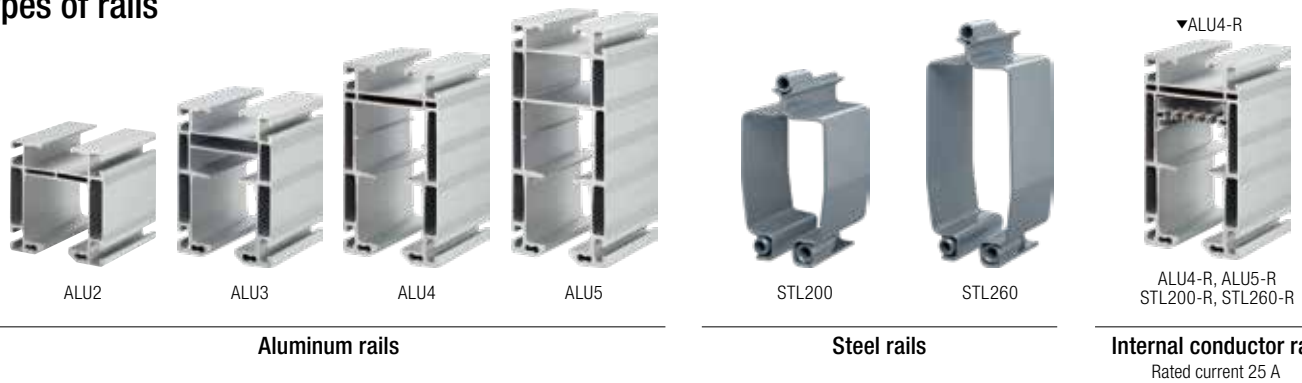
- Cable
- TD rail
- Internal conductor rail
- Air hose

Please inform us of any other requirements.



Rail selection

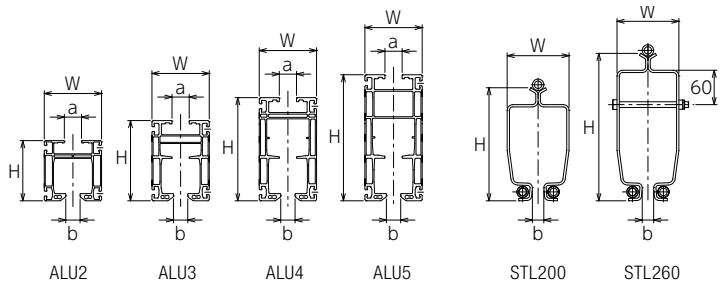
Types of rails



Section dimensions

(mm)

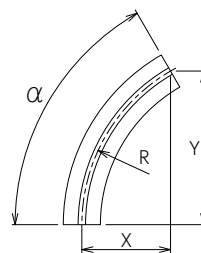
Type	Standard lengths (mm)	H	W	a	b	Unit mass (kg/m)
ALU2	3000	105				5.1
ALU3	4000	140	100	30	25	7.6
ALU4	5000	180				9.4
ALU5	6000	220				10.8
STL200	7000	197				18.0
STL260	5000	257	108	-	20	21.8
	6000					
	7000					
	8000					



Curved rail dimensions

(mm)

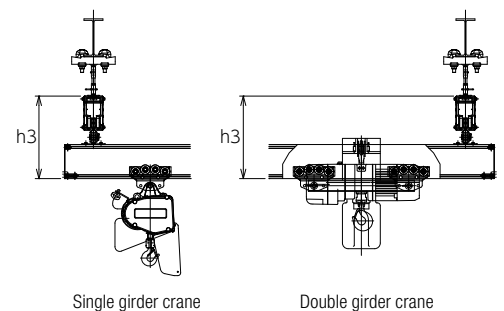
Rail	Radius R	Angle α	X	Y	Mass (kg)
STL200	1500	30°	200	750	14.5
		45°	440	1060	21.5



Dimension from the traveling rail top surface to the traversing rail bottom surface: h3

(mm)

Type	Traveling rail					
	ALU2	ALU3	ALU4	ALU5	STL200	STL260
ALU2	289	324	364	404	400	460
ALU3	322	357	397	437	433	493
ALU4	361	396	436	476	472	532
ALU5	401	436	476	516	512	572
STL200	414	449	489	529	524	584
STL260	474	509	549	589	584	644



Minimum hoist headroom (Dead space)

Please confirm using each of the product catalogs.



KITO Electric Chain Hoist
EQ



KITO Electric Chain Hoist
ER2



KITO Electric Chain Hoist
ED



KITO Manual Chain Hoist
M3CB

Rail selection table

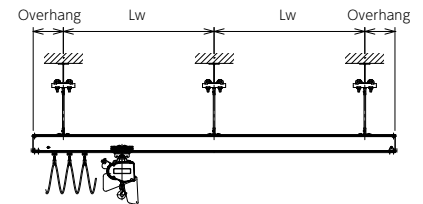
Please select the rail according to the load weight and the mounting roof beam pitch. The selection table described below shows the reference values when the traveling rail and the girder use the same rail and when using Kito hoists. If combining with different rails, utilizing other company's hoists, or for use when the rail is overhanging, please inquire separately. For items showing the * mark, it will be necessary to use a double trolley.

Step 1 Select according to the weight of the load.

Monorail		Capacity/Load weight (kg)										
		~30	~60	~100	~150	~160	~240	~250	~480	~490	~500	~1000
ALU2	Lw	~7.6	~5.4	~4.1	~3.4	~3.3	~2.6	~2.6				
ALU3	Lw		~8.6	~6.6	~5.4	~5.2	~4.3	~4.2	~3.0	~3.0	~2.9	
ALU4	Lw			~8.7	~7.8	~7.5	~6.1	~6.0	~4.3	~4.3	~4.2	~3.0*
ALU5	Lw				~8.7	~8.7	~7.9	~7.7	~5.6	~5.5	~5.4	~3.8*
STL200	Lw						~8.7	~8.5	~6.2	~6.1	~6.0	~4.1*
STL260	Lw							~9.8	~8.9	~8.9	~8.8	~6.2*

(m)

Lw: Monorail and traveling rail permissible mounting pitch
Lkr: Girder permissible span

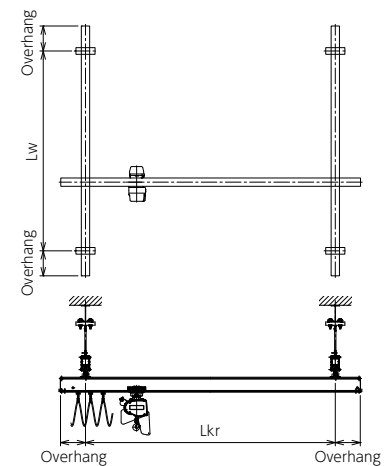


Step 2 Select according to the traversing distance and the building roof beam pitch.

Step 1 Select according to the weight of the load.

Single girder crane		Capacity/Load weight (kg)										
		~30	~60	~100	~150	~160	~240	~250	~480	~490	~500	~1000
ALU2	Lkr	~7.6	~5.4	~4.1	~3.4	~3.3	~2.6	~2.6				
	Lw	~5.5	~4.3	~3.5	~3.0	~3.0	~2.5	~2.3				
ALU3	Lkr		~7.8	~6.6	~5.4	~5.2	~4.3	~4.2	~3.0	~3.0	~2.9	
	Lw		~6.4	~5.4	~4.7	~4.6	~3.9	~3.7	~2.9	~2.8	~2.8	
ALU4	Lkr			~7.8	~7.8	~7.5	~6.1	~6.0	~4.3	~4.3	~4.2	~3.0*
	Lw			~7.5	~6.5	~6.4	~5.6	~5.3	~4.1	~4.0	~4.0	~3.0*
ALU5	Lkr				~7.8	~7.8	~7.8	~7.7	~5.6	~5.5	~5.4	~3.8*
	Lw				~8.2	~8.1	~7.0	~6.6	~5.2	~5.1	~5.1	~3.8*
STL200	Lkr						~7.8	~7.8	~6.2	~6.1	~6.0	~4.1*
	Lw						~7.4	~7.0	~5.6	~5.5	~5.5	~4.1*
STL260	Lkr							~7.8	~7.8	~7.8	~7.8	~6.2*
	Lw							~9.8	~8.0	~7.8	~7.8	~5.9*

(m)



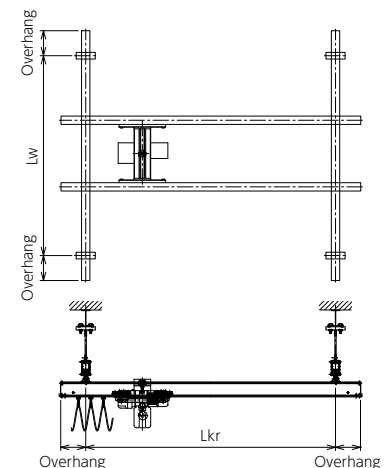
Step 2 Select according to the traversing distance and the building roof beam pitch.

Step 3 Select according to the traveling distance and the building roof beam pitch.

Step 1 Select according to the weight of the load.

Double girder crane		Capacity/Load weight (kg)										
		~30	~60	~100	~150	~160	~240	~250	~480	~490	~500	~1000
ALU4	Lkr		~7.8	~7.8	~7.8	~7.8	~7.8	~7.8	~6.2	~6.1	~6.0	~4.3
	Lw		~7.8	~6.9	~6.1	~6.1	~5.3	~5.1	~4.1	~4.1	~4.0	~3.1
ALU5	Lkr				~7.8	~7.8	~7.8	~7.8	~7.8	~7.8	~7.7	~5.5
	Lw				~7.7	~7.6	~6.7	~6.4	~5.1	~5.0	~5.0	~3.8
STL200	Lkr						~7.8	~7.8	~7.8	~7.8	~7.8	~6.1
	Lw						~6.8	~6.6	~5.4	~5.3	~5.3	~4.1
STL260	Lkr							~7.8	~7.8	~7.8	~7.8	~7.8
	Lw							~9.2	~7.6	~7.5	~7.4	~5.7

(m)



Step 2 Select according to the traversing distance and the building roof beam pitch.

Step 3 Select according to the traveling distance and the building roof beam pitch.

Trolley selection

Method of selecting trolleys

The selection table described below shows the situation when the traveling rail and the girder use rails that are made of the same materials. If investigating combinations with different rails, please inquire separately.

Types of cranes	Capacity (kg)	Types of trolleys
Monorail	~500	Single trolley
	501~1000	Double trolley
Single girder crane	~500	Single trolley
	501~1000	Double trolley
Double girder crane	~1000	Hoist saddle

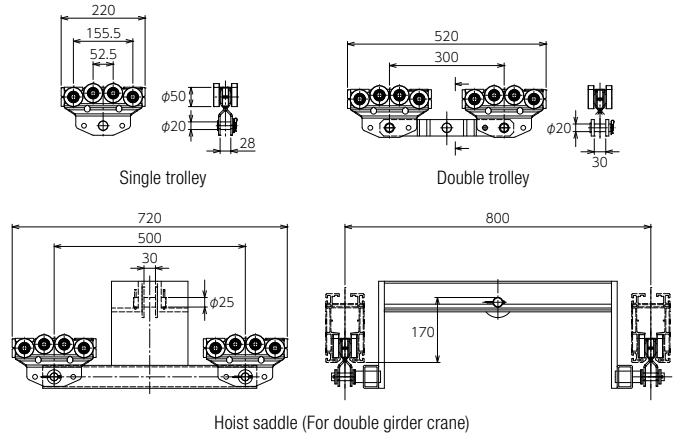
Types of trolleys

For aluminum rails (ALU2, ALU3, ALU4, ALU5)

Type	Trolley width (mm)	Mass (kg)	Working load limit	
			(kg)	(kN)
Single trolley	220	3	600	5.9
Double trolley	520	7	1200	11.8
Hoist saddle	720	47	2000	19.6



Single trolley

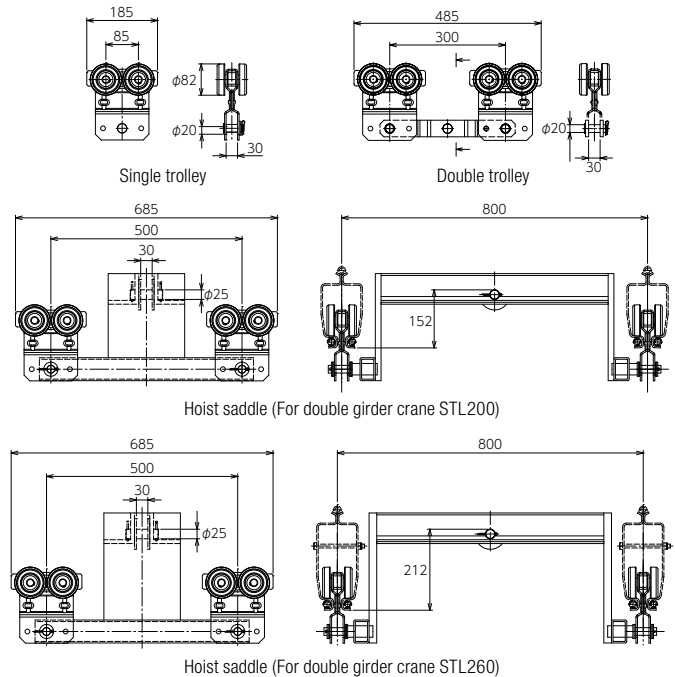


For steel rails (STL200, STL260)

Type	Trolley width (mm)	Mass (kg)	Working load limit	
			(kg)	(kN)
Single trolley	185	3	800	7.8
Double trolley	485	9	1200	11.8
Hoist saddle	685	49 (STL200)	2000	19.6
		57 (STL260)		



Single trolley

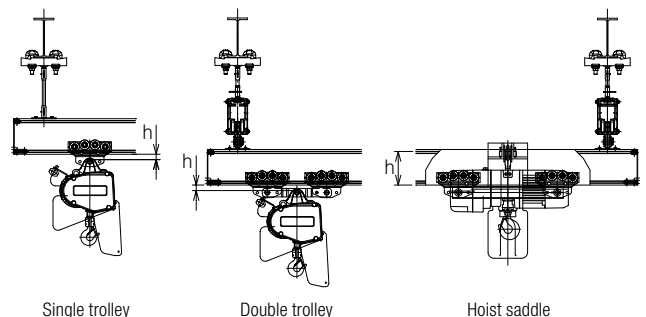


•When using double trolleys on curved rails, dedicated trolleys will be required. Please inquire separately.

Dimension from the rail bottom to the suspension shaft top : h

Type	ALU2	ALU3	ALU4	ALU5	STL200	STL260
Single trolley	28				46	
Double trolley	28				46	
Hoist saddle	—	—	-170	—	-152	-212

•It is not possible to mount the electric chain hoist EQ in the hoist end carriage.



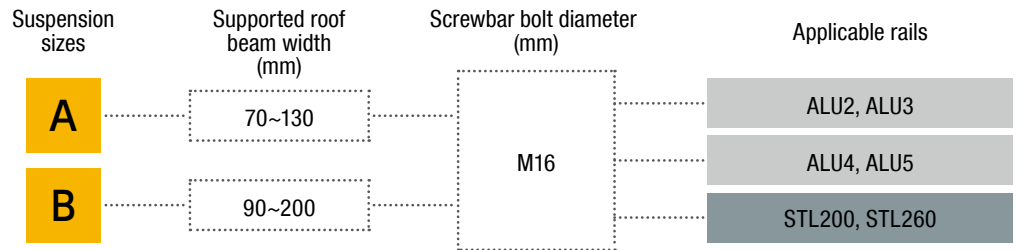
Single trolley

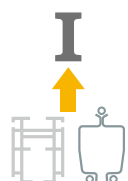

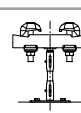
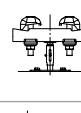

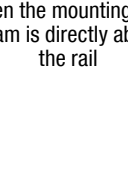



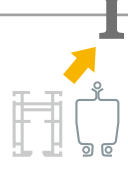
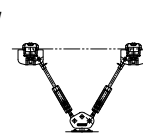
Double trolley

Hoist saddle

Suspension selection

Types of suspensions

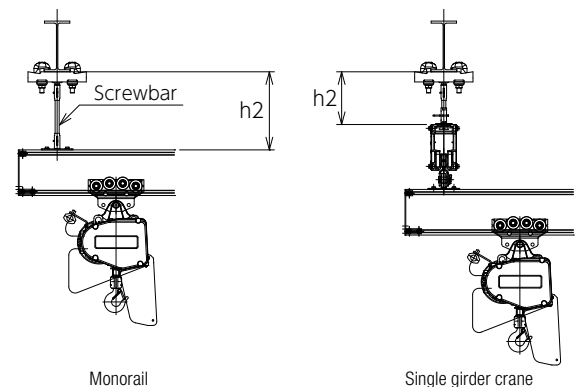


Rail mounting location	Shape of suspension mounting components	Oscillation damping	Shortest mounting	Suspension		Mounting part roof beam			
				Size	Type	H type or I type (Clamp)	Square-shape steel (Bracke)		
 <p>When the mounting roof beam is directly above the rail</p>	 <p>When the mounting roof beam is flat</p>	Not required	Not required	A B	Standard suspension	ST		●	●
			Required	A B	Short suspension	SH		●	●
		Required*	Not required	B	Braced suspension	BR		●	●
 <p>When the mounting roof beam is directly above the rail</p>	 <p>When the mounting roof beam is inclined</p>	Not required	Not required	B	Inclined suspension	IN		●	●
			Required*	Not required	B	Inclined braced suspension	IB		●
 <p>When the mounting roof beam is not directly above the rail</p>	—	Not required	Not required	B	V-type suspension	V		●	●

* When the distance from the roof beam bottom surface to the traveling rail top surface is 500 mm or more, it is recommended to use suspension which has oscillation damping.

Dimension from the roof beam bottom surface to the traveling rail top surface: h2

Applicable rails	Screwbar bolt diameter	Short suspension	Standard suspension Screwbar length (mm)			
			100	300	600	1000
ALU2	M16	136				
ALU3			212	412	712	1112
ALU4						
ALU5						
STL200						
STL260		167	246	446	746	1146



•Regarding combinations other than those described in the above table, please contact us separately.

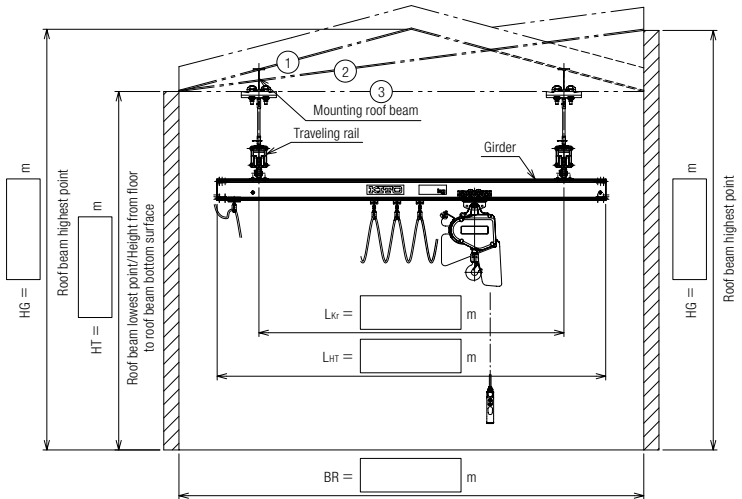
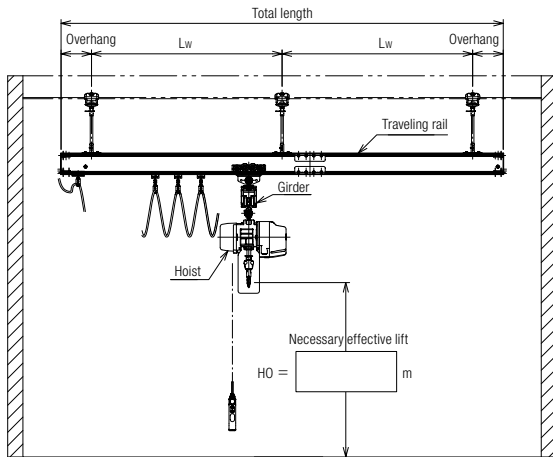
Estimate inquiry specification sheet

When requesting an inquiry, please fill in the known section in the table below.



Company name	
Name of person responsible	
TEL	FAX
E-mail	

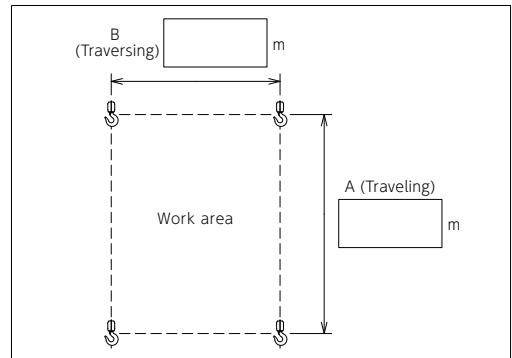
► Building situation



► Specifications

Capacity	[] kg
Types of cranes	<input type="checkbox"/> Single girder crane <input type="checkbox"/> Double girder crane <input type="checkbox"/> Monorail
Mounting building shape	<input type="checkbox"/> ① <input type="checkbox"/> ② <input type="checkbox"/> ③
Hoist	Shape [] Lift [] m
No. of girders	<input type="checkbox"/> 1 girder <input type="checkbox"/> 2 girders <input type="checkbox"/> 3 or more girders [] girders
Crane mounting beam	<input type="checkbox"/> H type or I type Roof beam dimensions [] <input type="checkbox"/> Square-shaped steel Roof beam dimensions []
Rail supporting interval Lw	Maximum [] m X [] clocation locations [] m
Power supply	[] V [] Hz
Power supply method	<input type="checkbox"/> Cable <input type="checkbox"/> Other []

► Effective work scope



► Special mention items

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