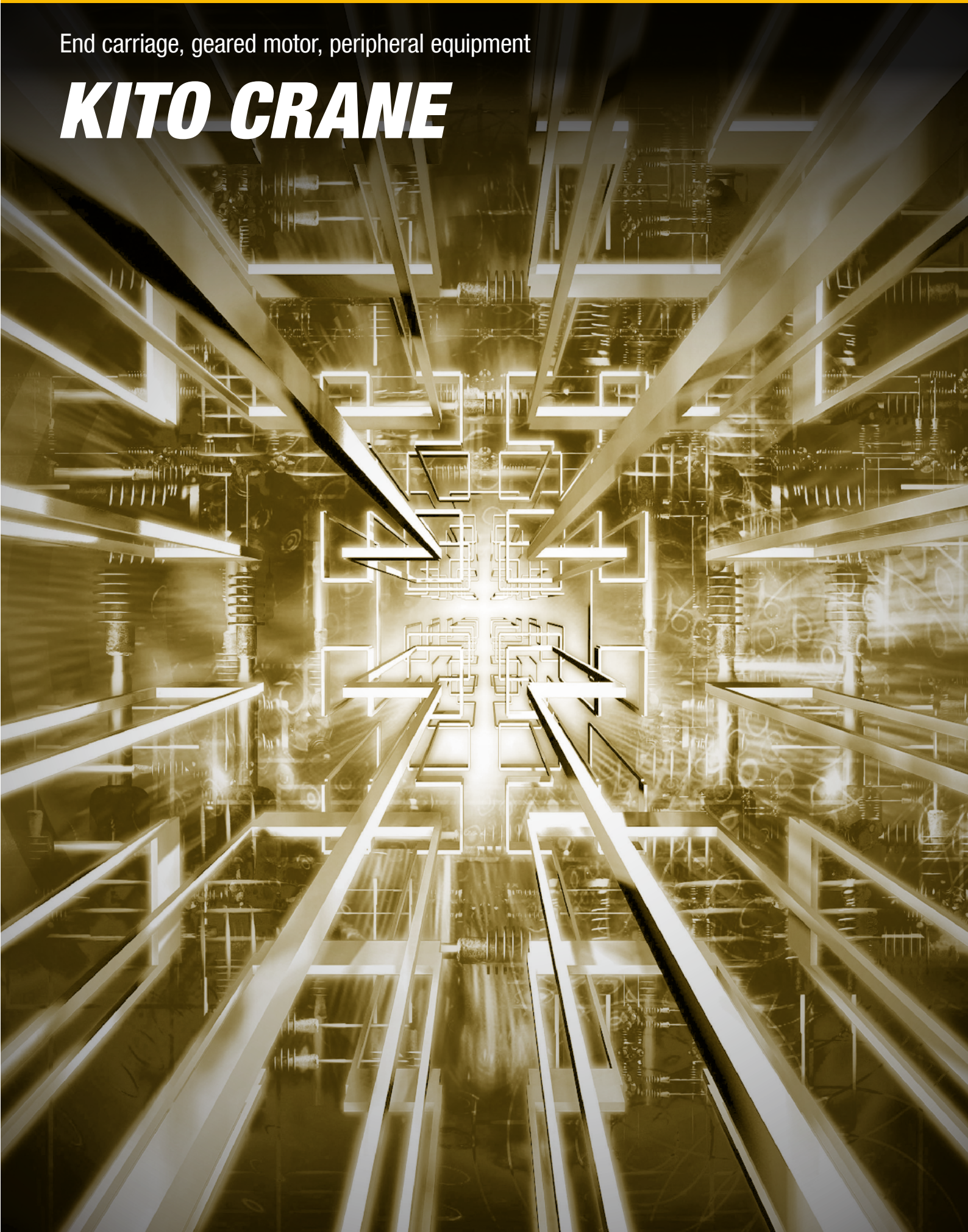


End carriage, geared motor, peripheral equipment

# ***KITO CRANE***



# Giving top priority to the every industrial workplace-Kito cranes.



Cranes are widely used in the workplace to improve work efficiency,  
to use limited space effectively and to help reduce costs.

To meet the diversifying demands of the industrial world,

Kito manufactures all kinds of cranes from simple manual cranes to motorized cranes with a single or double girder.

All of our products have been designed and built taking into consideration safety, operability and durability.

In addition, we have the cranes which are quiet and vibrate less and which are suitable  
for a working environment where quiet operation is important.



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Note: all measurements used in this catalog are metric (SI unit system)

# Crane test equipment

At Kito, cranes are tested for durability and reliability using special equipment.



## Test equipment capacity at Kito factory

| Traveling crane       | Hoist                  |
|-----------------------|------------------------|
| Max. test load<br>50t | Max. test load<br>100t |
| Span<br>30m           |                        |

[Overhead cranes]

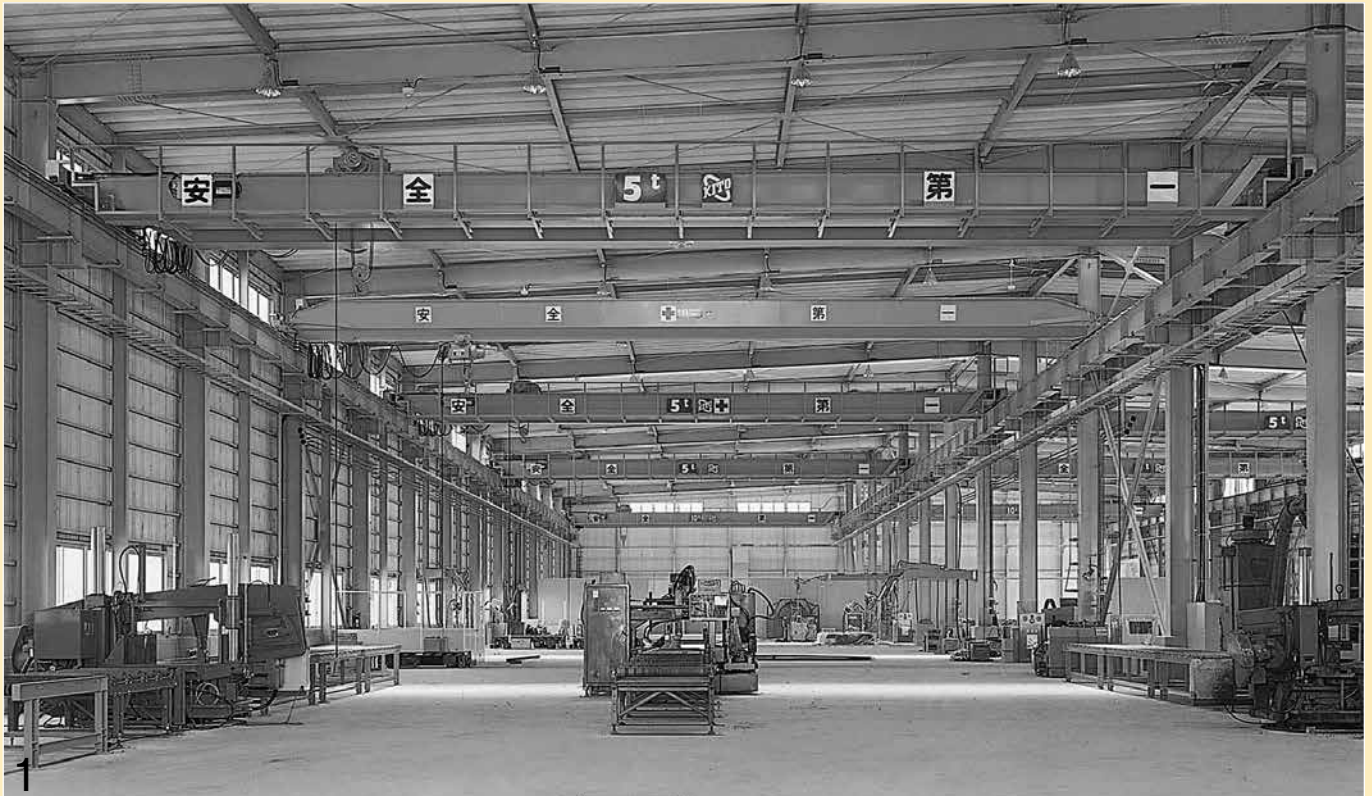


## Overhead cranes

- 1: 30/10t Double girder
- 2: 2.8t Single girder
- 3: 20/2.8t Double girder
- 4: 2.8t Single girder

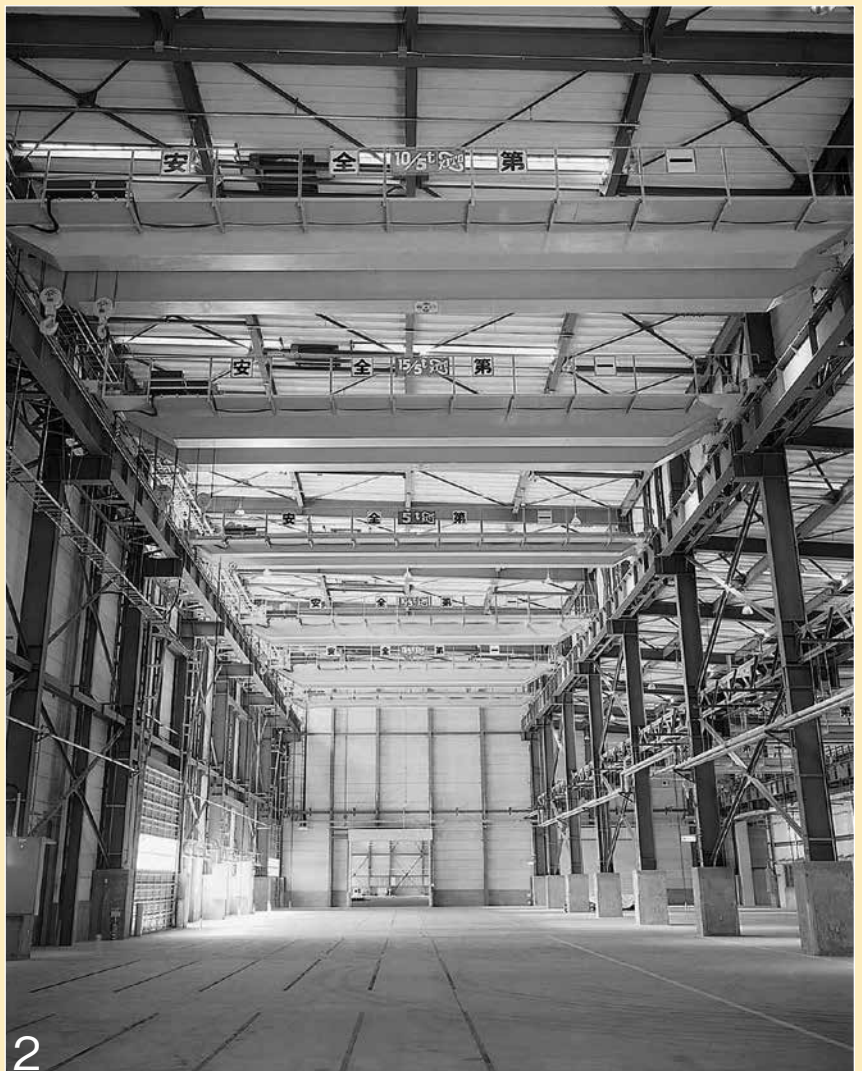
# Kito crane applications

[Overhead cranes]

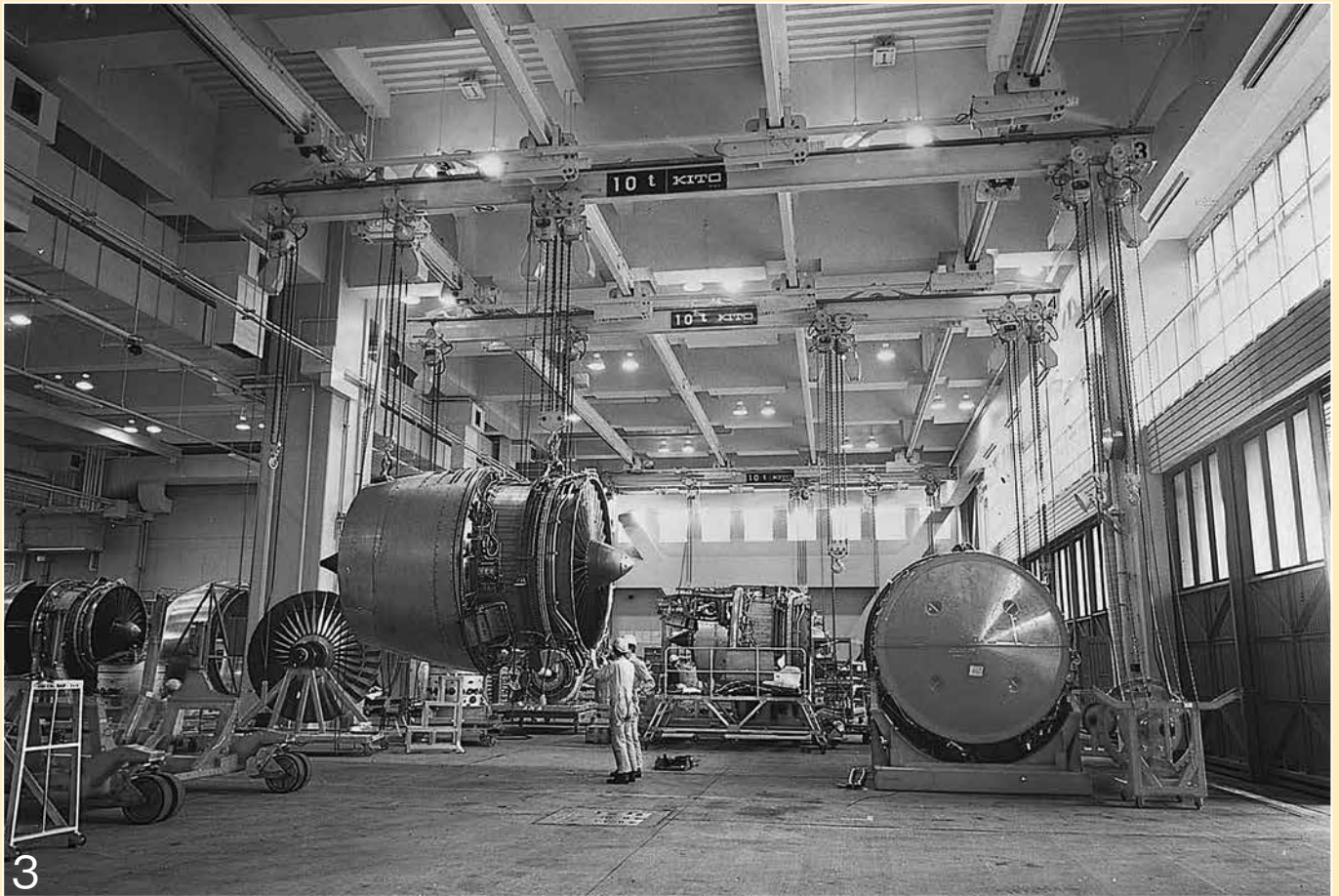


## Overhead cranes

- 1: 5t Double girder
- 2: 10/5t Double girder



[Low-head cranes]



**Low-head cranes**

3: 10t Single girder

4: 1t Single girder

5: 1t Single girder

# Kito crane applications

[Gantry cranes]



## Gantry cranes

- 1: 20t Gantry cranes
- 2: 5t Single leg gantry crane
- 3: 2.8t Gantry cranes

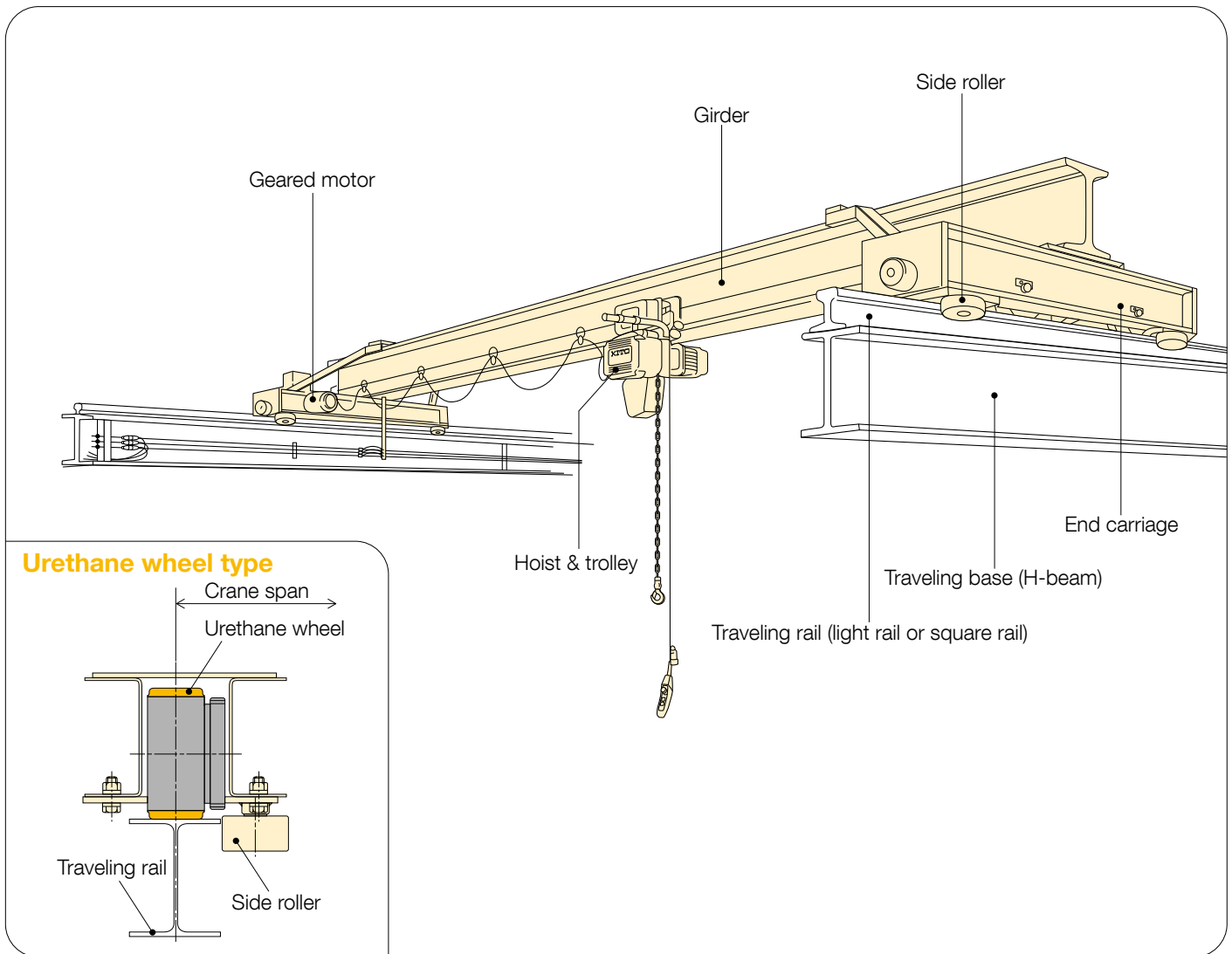
[Jib cranes]



**Jib cranes**

- 4: 6t Pillar mounted jib crane - auto rotary
- 5: 2t Pillar mounted jib crane
- 6: 2t Pillar mounted jib cranes
- 7: 2t Wall mounted jib crane - auto rotary
- 8: 13t Pillar mounted jib crane - auto rotary
- 9: 2t Wall mounted jib crane - auto rotary
- 10: 1.5t Wall mounted jib cranes - electric traveling

# Overhead crane [single girder]



The single girder overhead crane can be installed on traveling rails on the brackets of building pillars. This type of crane has a relatively larger capacity and can utilize space below ceiling rafters, and so a wider lifting range is assured. Guiding the path using side rollers provides smooth traveling and the girders can be designed according to the rated load and span. Moreover, the shorter overall length of the end carriage and the geared-motor installation in optimum position allows for a more effective use of work space.

There is also a urethane wheel type version of this crane that effectively reduces noise and vibrations in travel. It is recommended for factories near residential areas, duplex office-homes and for operation at night. Running urethane wheels on the top flange of the h-beam reduces noise and vibration in travel. With these cranes it is not necessary to install a light rail, thus reducing installation costs and time.

## Single speed crane

This crane employs geared motors specially designed by Kito to ensure smooth starts and stops. It is suited for general work.

## Manual geared type crane

This manual geared type crane balances travel smoothly by synchronizing the driving wheels on both sides. With a relatively shorter travel distance, it is suited for low frequency work.

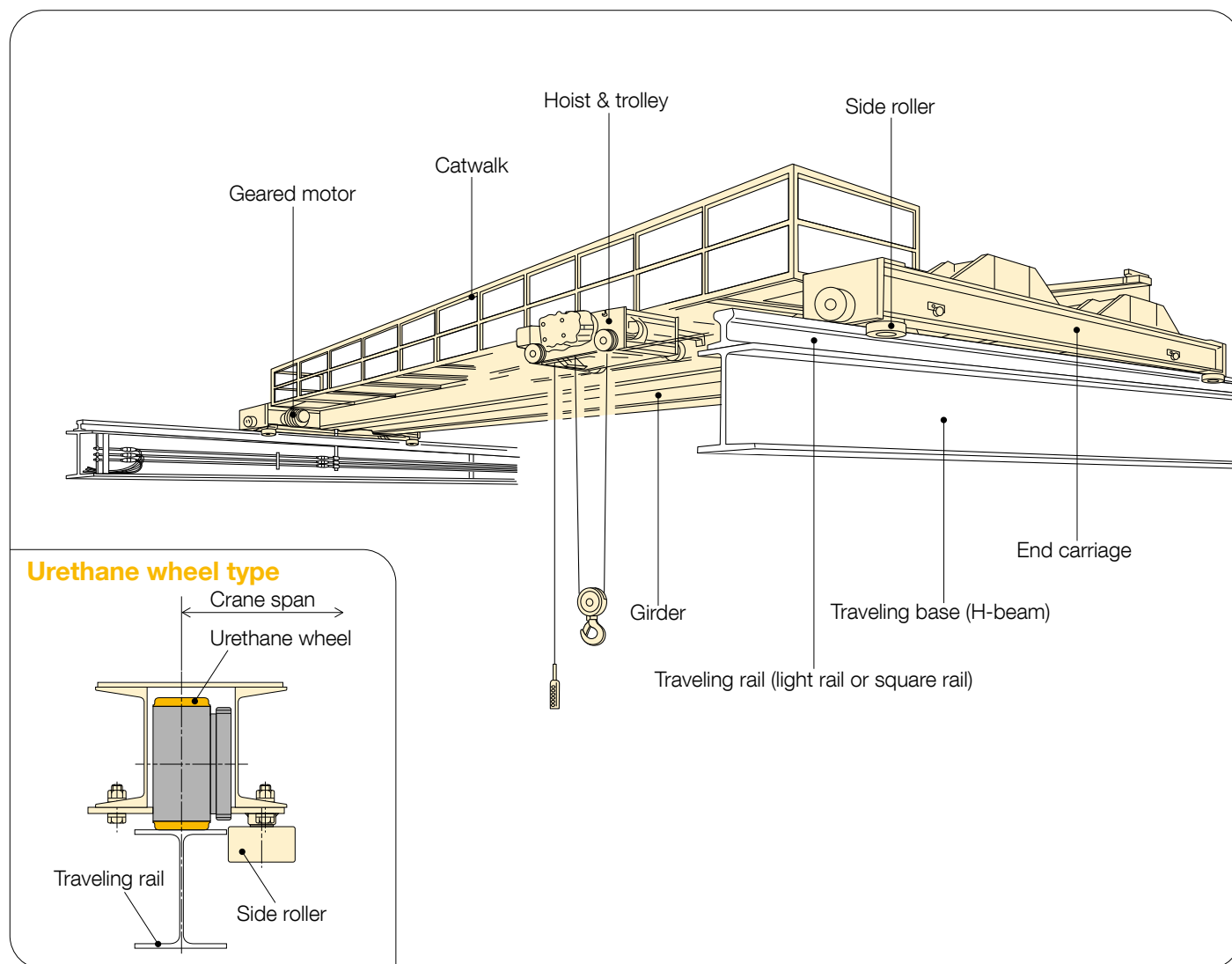
## Optional softrun device

This device electrically controls motor speed which enables to accelerate smoothly in travel and minimizes load swing at start-up.

It is highly suited for handling high inertia loads or operating long span cranes.

S

# Overhead crane [double girder]



The double girder overhead crane can be installed on traveling rails on the brackets of building pillars. The double rail type trolley runs along parallel girders suitable for larger capacity cranes, and also can utilize space below ceiling rafters, and so a wider lifting range assured. Smooth traveling is obtained using a guide mechanism with side rollers, and the girder construction can be designed according to the rated load and span. Moreover, the shorter overall length of the end carriage allows for a more effective use of the work space.

There is also a urethane wheel type crane that effectively reduces noise vibration in travel. It is recommended for factories near residential areas, duplex office-homes and for operation at night. Running urethane wheels on the top flange of the H-beam reduces noise and vibration in travel. With these cranes, it is not necessary to install a light rail thus reducing on installation costs and time.

## Single speed crane

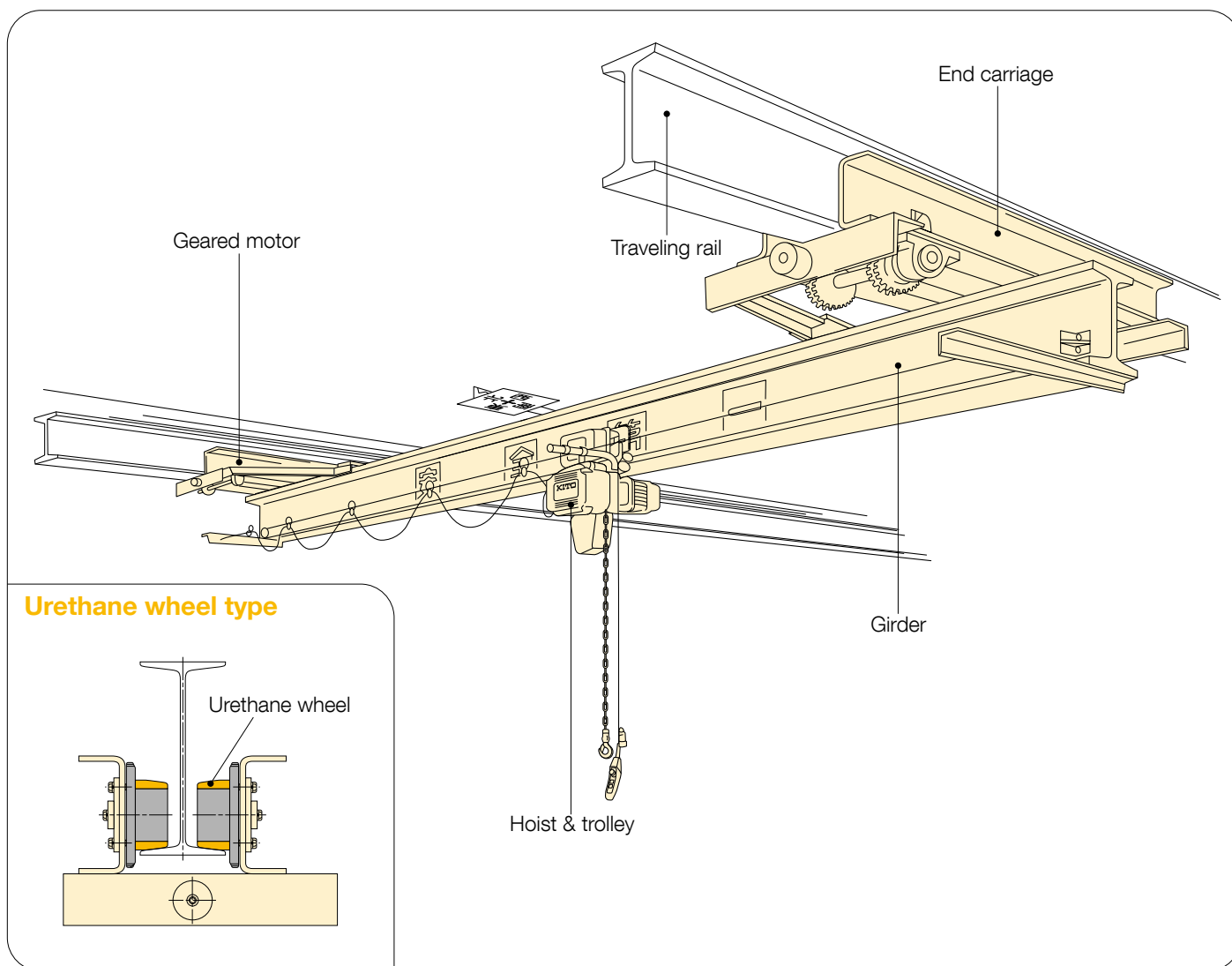
This crane employs geared motors specially designed by Kito to ensure smooth starts and stops. It is suited for general work.

## Optional softtrun device

This device electrically controls motor speed which enables to accelerate smoothly in travel and minimizes load swing at start-up.

It is highly suited for handling high inertia loads or operating long span cranes.

# Low-head cranes



The low-head crane is suspended from the traveling rail (I-beam) which is fixed to the ceiling rafters of the building. Because the traveling rail location and span can be freely chosen, the crane can be designed to suit production line processes. The detaching design for the track wheel and its axle reduces installation and maintenance time.

There is also a urethane wheel type version of the crane that effectively reduces noise and vibration in travel. It is recommended for factories near residential areas, duplex office-homes, and for operation at night.

## Single speed crane

This crane employs geared motors specially designed by Kito to ensure smooth starts and stops. It is suited for general work.

## Manual geared type

This manual geared type version of the crane balances travel smoothly by synchronizing the driving wheels on both sides. With a relatively shorter travel distance, it is suited for low frequency work.

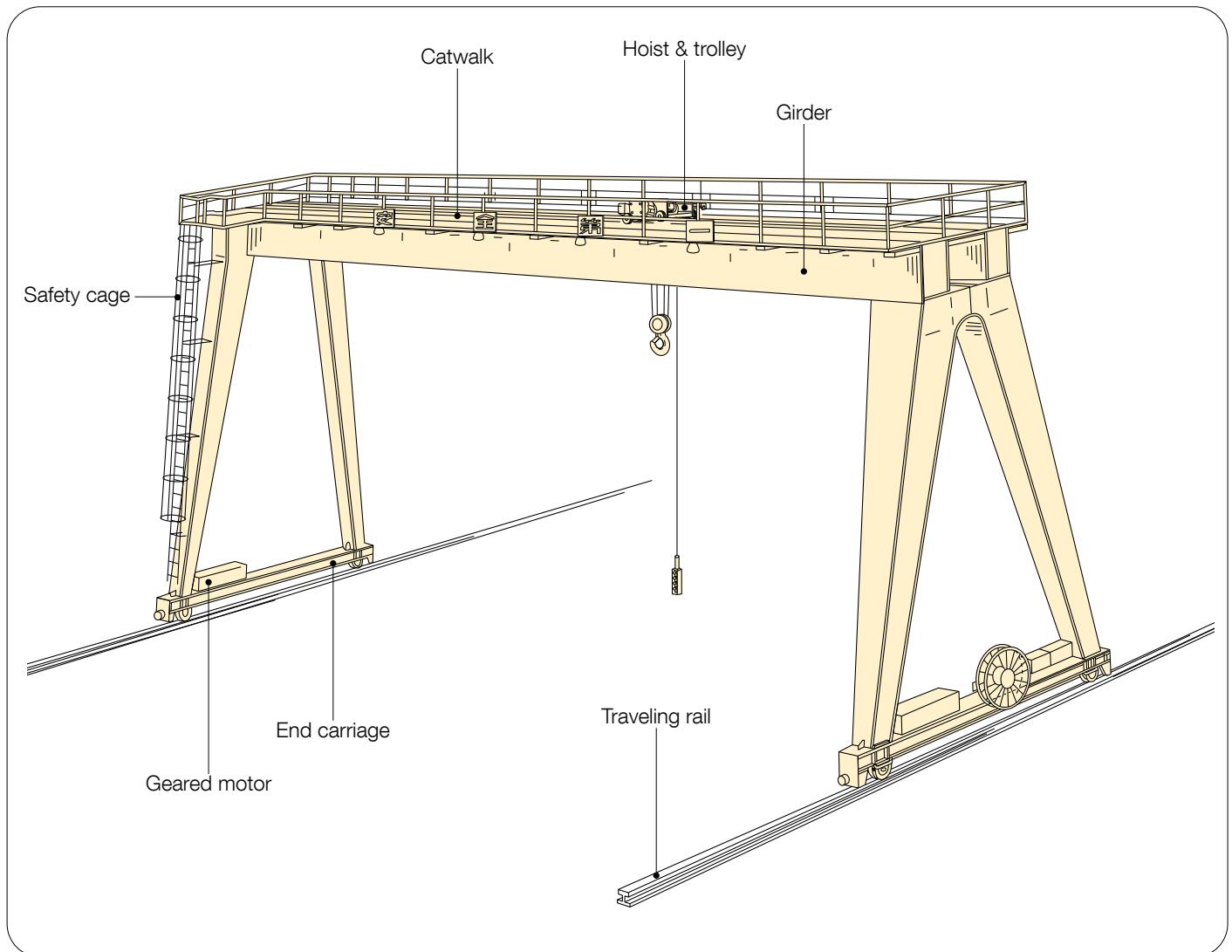
## Manual plain type (low-head only)

This is the simplest manual type of crane and lifting and traveling are operated by hand. It is suited for light work.

## Optional soft-run device

This device electrically controls motor speed which enables to accelerate smoothly in travel and minimizes load swing at start-up. It is highly suited for handling high inertia loads or operating long span cranes.

## Bridge cranes



Kito's gantry crane series offer "gantry cranes", which run on floor mounted rail by its two legs fabricated from steel sections, and "single leg gantry cranes", which have the end of the bridge supported by an end truck running on an elevated rail.

It is possible to customize this crane for the work and the installation site. "gantry cranes" can be used both outside and inside, and in combination with heavy cranes.

# End carriage capacity

- WLL: indicates the maximum mass (Working Load Limit) for general use.
- Traveling speeds are shown on pages 18 to 23.

| Type                |                     | WLL<br>(t) | Span (m)   |         |           |           |            |           |            | Page |    |
|---------------------|---------------------|------------|------------|---------|-----------|-----------|------------|-----------|------------|------|----|
|                     |                     |            | 3          | 6       | 9         | 12        | 15         | 18        | 21         |      | 27 |
| Motorized           | Overhead            | 1          | EO010-9    |         | EO010-12  | EO010-18  |            | EO010-21  |            | 18   |    |
|                     |                     | 2          | EO020-9    |         | EO020-12  | EO020-18  |            | EO020-21  |            |      |    |
|                     |                     | 3          | EO030-9    |         | EO030-12  | EO030-18  |            | EO030-21  |            |      |    |
|                     |                     | 5          | EO050-9    |         | EO050-12  | EO050-18  |            | EO050-21  |            |      |    |
|                     |                     | 7.5        | EO075-12   |         |           | EO075-18  |            | EO075-21  |            |      |    |
|                     |                     | 10         | EO100-12   |         |           | EO100-18  |            | EO100-21  |            |      |    |
|                     | Low-head            | 1          | EL010-6    |         | EL010-9   | EL010-12  | EL010-15   |           |            |      | 22 |
|                     |                     | 2          | EL020-6    |         | EL020-9   | EL020-12  | EL020-15   |           |            |      |    |
|                     |                     | 3          | EL030-6    |         | EL030-9   | EL030-12  | EL030-15   |           |            |      |    |
|                     |                     | 5          | EL050-6    |         | EL050-9   | EL050-12  | EL050-15   |           |            |      |    |
| Urethane wheel type | Overhead            | 1          | CEO010-9   |         | CEO010-12 | CEO010-15 | CEO010-18  | CEO010-21 |            | 19   |    |
|                     |                     | 2          | CEO020-9   |         | CEO020-12 | CEO020-15 | CEO020-18  | CEO020-21 |            |      |    |
|                     |                     | 3          | CEO030-9   |         | CEO030-12 | CEO030-15 | CEO030-18  | CEO030-21 |            |      |    |
|                     |                     | 5          | CEO050-9   |         | CEO050-12 | CEO050-15 | CEO050-18  | CEO050-21 |            |      |    |
|                     |                     | 7.5        | CEO075-12  |         |           | CEO075-18 |            | CEO075-21 |            |      |    |
|                     |                     | 10         | CEO100-12  |         |           | CEO100-18 |            | CEO100-21 |            |      |    |
|                     | Low-head            | 1          | CEL010-9   |         |           |           |            |           |            |      | 23 |
|                     |                     | 2          | CEL020-9   |         |           |           |            |           |            |      |    |
| Double girder       | Overhead            | 3          | WEO030-15  |         |           |           | WEO030-21  |           | WEO030-27  | 20   |    |
|                     |                     | 5          | WEO050-15  |         |           |           | WEO050-21  |           | WEO050-27  |      |    |
|                     |                     | 7.5        | WEO075-15  |         |           |           | WEO075-21  |           | WEO075-27  |      |    |
|                     |                     | 10         | WEO100-15  |         |           |           | WEO100-21  |           | WEO100-27  |      |    |
|                     |                     | 15         | WEO150-15  |         |           |           | WEO150-21  |           | WEO150-27  |      |    |
|                     |                     | 20         | WEO200-15  |         |           |           | WEO200-21  |           | WEO200-27  |      |    |
|                     | Urethane wheel Type | 3          | CWE0030-15 |         |           |           | CWE0030-21 |           | CWE0030-27 | 21   |    |
|                     |                     | 5          | CWE0050-15 |         |           |           | CWE0050-21 |           | CWE0050-27 |      |    |
|                     |                     | 7.5        | CWE0075-15 |         |           |           | CWE0075-21 |           | CWE0075-27 |      |    |
|                     |                     | 10         | CWE0100-15 |         |           |           | CWE0100-21 |           | CWE0100-27 |      |    |
|                     |                     | 15         | CWE0150-15 |         |           |           | CWE0150-21 |           | CWE0150-27 |      |    |
|                     |                     | 20         | CWE0200-15 |         |           |           | CWE0200-21 |           | CWE0200-27 |      |    |
| Manual type         | Overhead            | Geared     | 1          | GO010-9 |           | GO010-12  |            |           |            |      | 24 |
|                     |                     |            | 2          | GO020-9 |           | GO020-12  |            |           |            |      |    |
|                     |                     |            | 3          | GO030-9 |           | GO030-12  |            |           |            |      |    |
|                     |                     |            | 5          | GO050-9 |           | GO050-12  |            |           |            |      |    |
|                     | Low-head            | Plain      | 0.5        | PL005-3 | PL005-6   | PL005-9   |            |           |            |      | 25 |
|                     |                     |            | 1          | PL010-6 |           | PL010-9   |            |           |            |      |    |
|                     |                     | Geared     | 1          | GL010-6 |           | GL010-12  |            |           |            |      | 24 |
|                     |                     |            | 2          | GL020-6 |           | GL020-12  |            |           |            |      |    |
|                     |                     |            | 3          | GL030-6 |           | GL030-12  |            |           |            |      |    |
|                     |                     |            | 5          | GL050-6 |           | GL050-12  |            |           |            |      |    |

- Optional softrun is recommended for color models.
- WLL: Working Load Limit (t).

## Features of end carriages

- To meet customer needs, we have raised performance while offering more standardized models. The track wheel is now made of a carbon steel construction and is, thus, durable and long lasting (excluding the plain type crane which is made from heat treated hot-rolled steel plates)
- Products are primer-coated which allows customers to choose the desired top coat color (KITO Yellow (equivalent to munsell 7.2YR6.5/14.5) is painted for plain type cranes).
- Punch-mark on end carriages for easy centering and drilling for girders.

|   |  |
|---|--|
| <b>Overhead end carriages</b>                     | <ul style="list-style-type: none"> <li>○Track wheel maintenance is easy because of the open frame construction.</li> <li>○Travel is smooth because of a guide mechanism with side rollers.</li> </ul>  |
| <b>Overhead urethane wheel type end carriages</b> | <ul style="list-style-type: none"> <li>○Durability has been improved with our own developed urethane wheels.</li> <li>○The urethane wheels run directly over the top flange of the H-beam, thus reducing noise and vibration in travel. It is not necessary to install a light rail thus reducing installation costs and time.</li> <li>○Travel is smooth because of a guide mechanism with side rollers.</li> </ul> |
| <b>Low-head end carriages</b>                     | <ul style="list-style-type: none"> <li>○Both the track wheel and track wheel axle are designed for easy detaching thus reducing installation and maintenance time.</li> <li>○Anti-drop plates are equipped on the carriage (for CSA).</li> </ul>   |
| <b>Low-head urethane wheel type end carriages</b> | <ul style="list-style-type: none"> <li>○This end carriage employs durable urethane wheels developed by Kito and an idling gear in reinforced nylon resin and reduces noise and vibrations in travel.</li> <li>○Both the track wheel and track wheel axle are designed for easy detaching thus reducing installation maintenance time.</li> </ul>   |
| <b>Manual plain type end carriage</b>             | <ul style="list-style-type: none"> <li>○The hand pulling operation has become smoother and easier with a pressed metal wheel (0.5t span 3m and 1t span 6m) and side rollers (1t span 9m).</li> </ul>   |
| <b>Manual geared type end carriage</b>            | <ul style="list-style-type: none"> <li>○Pulling the hand chain makes both wheels move at the same time for balanced smooth traveling.</li> </ul>   |

## How to read carriage types

**EL 010 9 S**

---

**WEO 150 27 H**

### Types ●

|      |   |
|------|---|
| EO   | Motorized overhead end carriages                              |
| EL   | Motorized low-head end carriages                              |
| CEO  | Urethane wheel motorized overhead end carriages               |
| CEL  | Urethane wheel motorized low-head end carriages               |
| WEO  | Motorized overhead double girder end carriages                |
| CWEO | Urethane wheel motorized overhead double girder end carriages |
| GO   | Geared type manual overhead end carriages                     |
| GL   | Geared type manual low-head end carriages                     |
| PL   | Plain type manual low-head end carriages                      |

### Rated load ●

Ex.: 010 = 1t, 150 = 15t

### Span ●

Ex.: 9 = 9m, 27 = 27m

### Speed ●

Ex.: L = 10/12m/min  
S = 20/24m/min  
H = 30/36m/min

# Geared motor capacity

| Type                |                     | WLL<br>(t) | Span (m)                   |   |                          |                              |                            |                              |                          |    |
|---------------------|---------------------|------------|----------------------------|---|--------------------------|------------------------------|----------------------------|------------------------------|--------------------------|----|
|                     |                     |            | 3                          | 6 | 9                        | 12                           | 15                         | 18                           | 21                       | 27 |
| Motorized           | Overhead            | 1          | G1MO025□-□                 |   |                          |                              | G1MO025□-□                 |                              | G1MO025□-□               |    |
|                     |                     | 2          | G1MO025□-□                 |   |                          |                              | G1MO025□-□                 |                              | G1MO040T-□               |    |
|                     |                     | 3          | G1MO025□-□<br>G1MO040T-□   |   |                          |                              | G1MO025□-□<br>G1MO040T-□   |                              |                          |    |
|                     |                     | 5          | G1MO025□-□<br>G1MO040T-□   |   |                          | G1MO040□-□<br>G1MO075T-□     |                            |                              |                          |    |
|                     |                     | 7.5        | G1MO075□-□<br>G1MO150T-□   |   |                          |                              | G1MO075□-□                 |                              | G1MO075□-□               |    |
|                     |                     | 10         |                            |   |                          |                              | G1MO150T-□                 |                              | G1M150T-□                |    |
|                     | Low-head            | 1          | G1ML025□-□                 |   | G1ML025□-□               | G1ML025□-□                   | G1ML040□-□                 | Available on<br>your request |                          |    |
|                     |                     | 2          | G1ML025□-□                 |   | G1ML025□-□               | G1ML025□-□                   |                            |                              |                          |    |
|                     |                     | 3          | G1ML025□-□                 |   | G1ML025□-□<br>G1ML040T-□ |                              |                            |                              |                          |    |
|                     |                     | 5          | G1ML040□-□<br>G1ML075T-□   |   |                          | G1ML075□-□                   |                            |                              |                          |    |
| Urethane wheel type | Overhead            | 1          | G1MO025□-□                 |   |                          |                              | G1MO040□-□                 |                              | G1MO075□-□               |    |
|                     |                     | 2          | G1MO040□-□                 |   |                          |                              | G1MO075□-□                 |                              |                          |    |
|                     |                     | 3          | G1MO075□-□                 |   |                          |                              |                            |                              |                          |    |
|                     |                     | 5          | G1MO075□-□<br>G1MO150T-□   |   |                          |                              | G1MO150□-□                 |                              | G1MO150□-□               |    |
|                     |                     | 7.5        | G1MO150□-□                 |   |                          |                              | G1MO150□-□                 |                              |                          |    |
|                     |                     | 10         |                            |   |                          |                              | G1MO150□-□<br>G1MO150□-□x2 |                              |                          |    |
|                     | Low-head            | 1          | G1ML025□-□                 |   |                          | Available on<br>your request |                            |                              |                          |    |
|                     |                     | 2          | G1ML040□-□<br>G1ML075T-□   |   |                          |                              |                            |                              |                          |    |
| Double girder       | Overhead            | 3          | G1MO025□-□<br>G1MO040T-□   |   |                          |                              |                            |                              | G1MO040□-□<br>G1MO075T-□ |    |
|                     |                     | 5          | G1MO040□-□<br>G1MO075T-□   |   |                          |                              | G1MO075□-□<br>G1MO150T-□   |                              | G1MO075□-□<br>G1MO150T-□ |    |
|                     |                     | 7.5        | G1MO075□-□                 |   |                          |                              |                            |                              | G1MO075□-□<br>G1MO150T-□ |    |
|                     |                     | 10         | G1MO150T-□                 |   |                          |                              | G1MO075□-□<br>G1MO150T-□   |                              | G1MO150□-□               |    |
|                     |                     | 15         | G1MO150□-□                 |   |                          |                              |                            |                              |                          |    |
|                     |                     | 20         | G1MO150□-□<br>G1MO150□-□x2 |   |                          |                              | G1MO150□-□<br>G1MO150□-□x2 |                              |                          |    |
|                     | Urethane wheel Type | 3          | G1MO075□-□<br>G1MO150T-□   |   |                          |                              |                            |                              | G1MO150□-□               |    |
|                     |                     | 5          | G1MO150□-□                 |   |                          |                              |                            |                              |                          |    |
|                     |                     | 7.5        | G1MO150□-□                 |   |                          |                              |                            |                              |                          |    |
|                     |                     | 10         | G1MO150□-□x2               |   |                          |                              | G1MO150□-□x2               |                              |                          |    |
|                     |                     | 15         | G1MO150□-□x2               |   |                          |                              | G1MO150□-□x2               |                              |                          |    |
|                     |                     | 20         | G1MO150□-□x2 *             |   |                          |                              | G1MO150□-□x2 *             |                              | G1MO150□-□x2             |    |

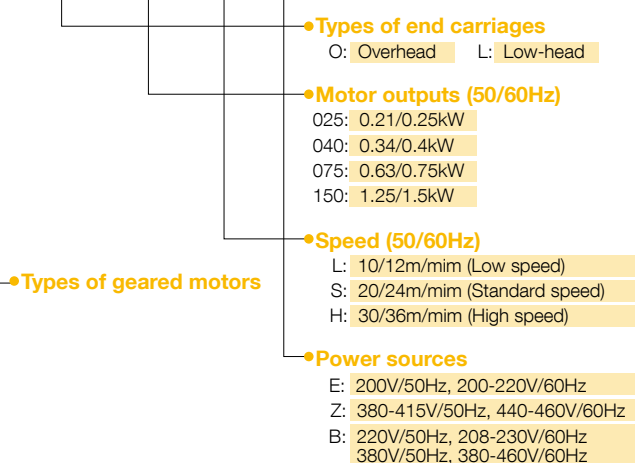
- 1.5kWx2 means 2 geared motors are used on 1 end carriage (on side): 4 driving motor type.
- For dual listings, models on the upper line are the low, standard and dual speeds end carriages, whereas models on the lower line are the high speed end carriages. Single listings show the low, standard, high and dual speed end carriages.
- \*Available on request (2.2kWx2 for 30/36m/min. speed).
- WLL: Working Load Limit (t).

## Features of geared motors

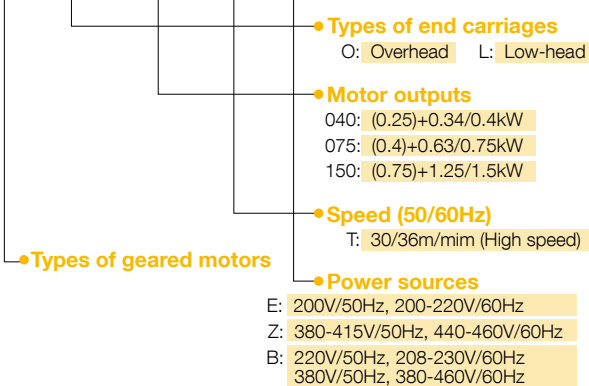
- Kito cranes employ a geared motor with an electromagnetic brake. Brake torque is adjustable from 0 to 50% (for 0.25kW :from 30 to 80%) of the rated torque of the motor, thus the load swing can be minimized by adjusting the brake torque.
- The motor uses a helical gear, which reduces noise during operation.
- Softrun devices are available to provide smooth starts and minimize swing.
- Motors are available in three different single speed (10/12, 20/24, and 30/36m/min 50/60Hz) types and they make work more efficient.

## How to read types (example)

**G1MO025 L-E**



**G1MO040 T-Z**



## How to order end carriages (example)

### When ordering an end carriage and geared motor separately

Ex.overhead end carriage 1t span 12m.

Geared motor for traveling speed 20m/min, motor output 0.25kW, and electric voltage 380V 50Hz.

• **End carriage**

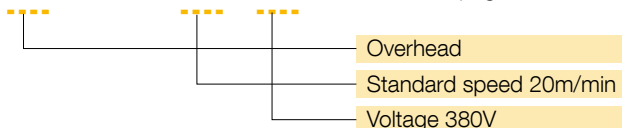
**EO010-12**

Shown on page 18

• **Geared motor**

**G1MO025S-Z**

Shown on page 26



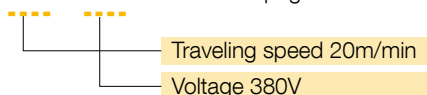
### When ordering an end carriage and geared motor as a complete unit

Ex.overhead end carriage 1t span 12m, traveling speed 20m/min and electric voltage 380V 50Hz.

• **Complete unit**

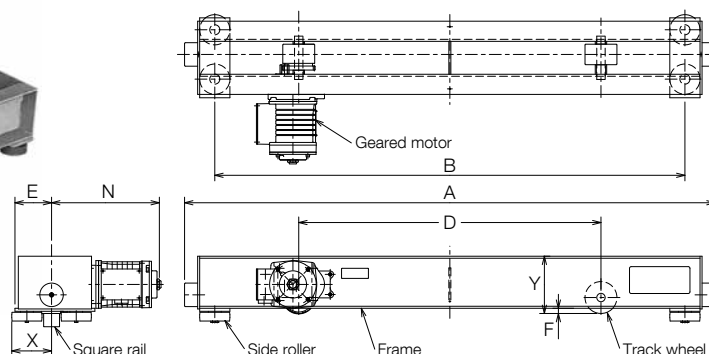
**EO010-12-S-Z**

Shown on page 18



# End carriage specifications

## Motorized overhead end carriage specifications



Ex. above photo shows EO030-12  
Some types of motors are mounted in parallel on the frames.

| WLL<br>(t) | Max.<br>span<br>(m) | Type     | Traveling motor output (kWx2)<br>50/60 Hz (m/min) |           |           | Applicable<br>square<br>rail<br>(mm) | Max.<br>wheel<br>pressure<br>(kN) | Wheel<br>diameter<br>(mm) | Dimensions (mm) |      |      |                 |      |                 |     |     | Mass<br>(kg/set) |
|------------|---------------------|----------|---|-----------|-----------|--------------------------------------|-----------------------------------|---------------------------|-----------------|------|------|-----------------|------|-----------------|-----|-----|------------------|
|            |                     |          | L   | S         | H         |                                      |                                   |                           | A               | B    | D    | E <sup>*1</sup> | F    | N <sup>*2</sup> | X   | Y   |                  |
|            |                     |          | 10/12   | 20/24     | 30/36     |                                      |                                   |                           |                 |      |      |                 |      |                 |     |     |                  |
| 1          | 9                   | EO010- 9 |   |           |           |                                      |                                   |                           |                 |      |      |                 |      |                 |     |     |                  |
|            | 12                  | EO010-12 |   |           | 0.21/0.25 | □32-□40<br>□38-□45                   | 9.31                              | 95                        | 1580            | 1400 | 900  | 109             | 15.5 | 321             | 119 | 171 | 132              |
|            | 18                  | EO010-18 |   |           |           |                                      | 17.6                              | 125                       | 2280            | 2100 | 1200 | 124             |      | 325             |     | 191 | 197              |
|            | 21                  | EO010-21 |   |           | 0.34/0.4  | □45-□50                              | 31.4                              | 175                       | 2691            | 2505 | 1400 | 144             |      | 326             | 123 | 221 | 380              |
| 2          | 9                   | EO020- 9 |   |           |           |                                      |                                   |                           |                 |      |      |                 |      |                 |     |     |                  |
|            | 12                  | EO020-12 |   |           | 0.21/0.25 | □32-□40<br>□38-□45                   | 17.6                              | 125                       | 1580            | 1400 | 900  | 114             |      | 325             | 119 | 176 | 146              |
|            | 18                  | EO020-18 | 0.21/0.25   | 0.21/0.25 |           |                                      |                                   |                           | 2280            | 2100 | 1200 | 124             | 20.5 |                 |     | 212 |                  |
|            | 21                  | EO020-21 |   |           |           |                                      | 31.4                              | 175                       | 2691            | 2505 | 1400 | 144             |      | 326             |     | 221 | 380              |
| 3          | 9                   | EO030- 9 |   |           |           |                                      |                                   |                           |                 |      |      |                 |      |                 |     |     |                  |
|            | 12                  | EO030-12 |   |           |           | □45-□50                              | 20.6                              | 140                       | 1580            | 1400 | 900  | 114             |      | 325             | 123 | 176 | 150              |
|            | 18                  | EO030-18 |   |           | 0.34/0.4  |                                      | 23.5                              | 155                       | 2280            | 2100 | 1200 | 149             |      |                 |     | 252 |                  |
|            | 21                  | EO030-21 |   |           |           |                                      | 31.4                              | 175                       | 2691            | 2505 | 1400 | 144             |      | 326             |     | 221 | 380              |
| 5          | 9                   | EO050- 9 |   |           |           |                                      |                                   |                           | 1490            | 1300 | 800  | 124             |      | 323             |     |     | 197              |
|            | 12                  | EO050-12 |   |           |           | □50                                  |                                   |                           | 2296            | 2100 | 1200 | 138             |      |                 | 143 | 224 |                  |
|            | 18                  | EO050-18 | 0.34/0.4  | 0.34/0.4  | 0.63/0.75 |                                      | 44.1                              | 210                       | 2296            | 2100 | 1200 | 138             |      | 376             |     |     | 374              |
|            | 21                  | EO050-21 |   |           |           |                                      |                                   |                           | 2696            | 2500 | 1400 | 163             |      |                 |     | 264 | 496              |
| 7.5        | 12                  | EO075-12 |   |           |           |                                      | 73.5                              | 250                       | 1645            | 1405 | 900  | 138             |      |                 |     | 224 | 384              |
|            | 18                  | EO075-18 |   |           |           |                                      |                                   |                           | 2345            | 2105 | 1200 | 163             | 23.5 |                 |     | 264 | 586              |
|            | 21                  | EO075-21 |   |           |           |                                      | 79.4                              | 300                       | 2745            | 2505 | 1400 | 183             |      |                 |     | 324 | 724              |
| 10         | 12                  | EO100-12 | 0.63/0.75   | 0.63/0.75 | 1.25/1.5  | □55-□60                              | 73.5                              | 250                       | 1645            | 1405 | 900  | 138             |      | 445             | 162 | 224 | 384              |
|            | 18                  | EO100-18 |   |           |           |                                      | 79.4                              | 300                       | 2345            | 2105 | 1200 | 163             |      |                 |     | 264 | 586              |
|            | 21                  | EO100-21 |   |           |           |                                      |                                   |                           | 2745            | 2505 | 1400 | 183             |      |                 |     | 324 | 724              |

•WLL: Working Load Limit (t).

\*1: The size including the projection of the side roller plate.

\*2: The size with the standard speed (s) geared motor.

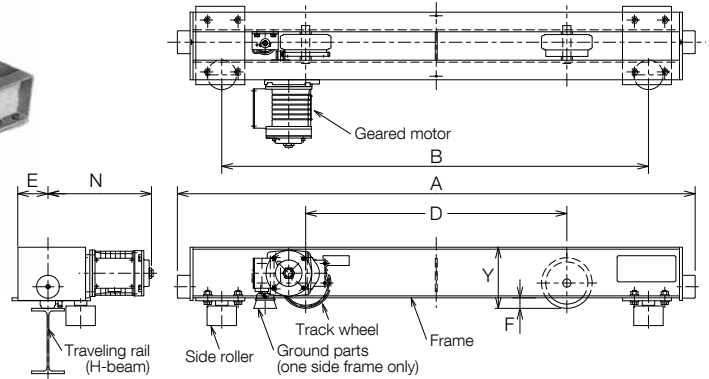
•When planning a girder or cart, contact your nearest Kito distributor.

## Urethane wheel motorized overhead end carriage specifications



\*Option

Ex. above photo shows EO030-15  
Some types of motors are mounted in parallel on the frames.



| WLL<br>(t) | Max.<br>span<br>(m) | Type      | Traveling motor output (kWx2)<br>50/60 Hz (m/min) |           |            | Applicable<br>traveling<br>rail<br>(mm) | Max.<br>wheel<br>pressure<br>(kN) | Recommended<br>wheel<br>pressure<br>(kN) | Wheel<br>diameter<br>(mm) | Dimensions (mm) |      |      |     |    |     |     | Mass<br>(kg/set) |
|------------|---------------------|-----------|---|-----------|------------|---|-----------------------------------|--|---------------------------|-----------------|------|------|-----|----|-----|-----|------------------|
|            |                     |           | L   | S         | H          |   |                                   |  |                           | A               | B    | D    | E   | F  | N   | Y   |                  |
|            |                     |           | 10/12   | 20/24     | 30/36      |   |                                   |  |                           |                 |      |      |     |    |     |     |                  |
| 1          | 9                   | CEO010- 9 | 0.21/0.25   | 0.21/0.25 | 0.21/0.25  | 100-125-150                             | 7.8                               | 7.4                                      | 155                       | 1586            | 1307 | 800  | 110 |    | 317 | 188 | 156              |
|            | 12                  | CEO010-12 |   |           |            |   |                                   |  |                           | 1696            | 1445 | 900  |     | 32 |     |     | 202              |
|            | 15                  | CEO010-15 | 0.34/0.4  | 0.34/0.4  | 0.34/0.4   |   | 14.7                              | 13.9                                     | 175                       | 2356            | 2105 | 1200 |     |    | 383 | 233 | 265              |
|            | 18                  | CEO010-18 |   |           |            |   |                                   |  |                           |                 |      |      |     |    |     |     |                  |
|            | 21                  | CEO010-21 | 0.63/0.75   | 0.63/0.75 | 0.63/0.75  |   | 33.3                              | 25.0                                     | 220                       | 2792            | 2499 | 1400 | 155 | 39 | 460 | 239 | 502              |
| 2          | 9                   | CEO020- 9 | 0.34/0.4  | 0.34/0.4  | 0.34/0.4   |   | 14.7                              | 13.9                                     | 175                       | 1696            | 1445 | 900  | 131 | 32 | 383 | 188 | 202              |
|            | 12                  | CEO020-12 |   |           |            |   |                                   |  |                           |                 |      |      |     |    |     |     |                  |
|            | 15                  | CEO020-15 |   |           |            |   |                                   |  |                           | 2082            | 1761 | 1000 |     |    |     |     | 384              |
|            | 18                  | CEO020-18 |   |           |            |   |                                   |  |                           | 2422            | 2101 | 1200 |     |    |     |     | 398              |
|            | 21                  | CEO020-21 |   |           |            |   |                                   |  |                           | 2792            | 2499 | 1400 |     |    |     |     | 502              |
| 3          | 9                   | CEO030- 9 |   |           | 0.63/0.75  |   |                                   |  |                           |                 |      |      |     |    |     |     |                  |
|            | 12                  | CEO030-12 | 0.63/0.75   | 0.63/0.75 |            | 150-175-200                             | 33.3                              | 25.0                                     | 220                       | 2082            | 1761 | 1000 | 155 |    | 460 |     | 384              |
|            | 15                  | CEO030-15 |   |           |            |   |                                   |  |                           |                 |      |      |     |    |     | 239 |                  |
|            | 18                  | CEO030-18 |   |           |            |   |                                   |  |                           | 2422            | 2101 | 1200 |     |    |     |     | 398              |
|            | 21                  | CEO030-21 |   |           |            |   |                                   |  |                           | 2792            | 2499 | 1400 |     |    |     |     | 502              |
| 5          | 9                   | CEO050- 9 |   |           |            |   |                                   |  |                           | 1852            | 1531 | 900  |     | 39 |     |     | 355              |
|            | 12                  | CEO050-12 |   |           |            |   |                                   |  |                           |                 |      |      |     |    |     |     |                  |
|            | 15                  | CEO050-15 |   |           |            |   | 41.2                              | 31.0                                     | 260                       | 2402            | 2106 | 1200 | 153 |    | 559 |     | 543              |
|            | 18                  | CEO050-18 |   |           |            |   |                                   |  |                           |                 |      |      |     |    |     |     |                  |
|            | 21                  | CEO050-21 |   |           | 1.25/1.5   |   |                                   |  |                           | 2821            | 2506 | 1400 | 184 |    |     | 279 | 665              |
| 7.5        | 12                  | CEO075-12 |   |           |            |   |                                   |  |                           | 2081            | 1766 | 900  | 177 |    |     | 239 | 525              |
|            | 18                  | CEO075-18 | 1.25/1.5  | 1.25/1.5  |            |   | 61.7                              | 46.2                                     | 340                       | 2421            | 2106 | 1200 | 184 |    | 553 | 279 | 627              |
|            | 21                  | CEO075-21 |   |           |            |   |                                   |  |                           | 2821            | 2506 | 1400 |     |    |     |     | 665              |
| 10         | 12                  | CEO100-12 |   |           |            |   |                                   |  |                           | 2081            | 1766 | 900  | 177 |    |     | 239 | 525              |
|            | 18                  | CEO100-18 |   |           | 1.25/1.5x2 | 200-250                                 | 81.3                              | 60.0                                     | 440                       | 2849            | 2509 | 1400 | 234 | 46 | 592 | 346 | 1027<br>(1220)   |
|            | 21                  | CEO100-21 |   |           |            |   |                                   |  |                           |                 |      |      |     |    |     |     |                  |

•WLL: Working Load Limit (t). •Weight in parentheses is for high speed (H). \*1: Contact your nearest Kito distributor for sizes other than listed above.

\*2: Wheel pressure under the WLL beneath the end carriage with standard girder and maximum span to verify endurance of the structure.

\*3: In case of regular use of more than 80% of WLL or frequent operation at a particular position, select an end carriage to make the wheel pressure the same as or less than the recommended wheel pressure.

\*4: The size including the projection of the side roller plate. \*5: The size with the standard speed (s) geared motor.

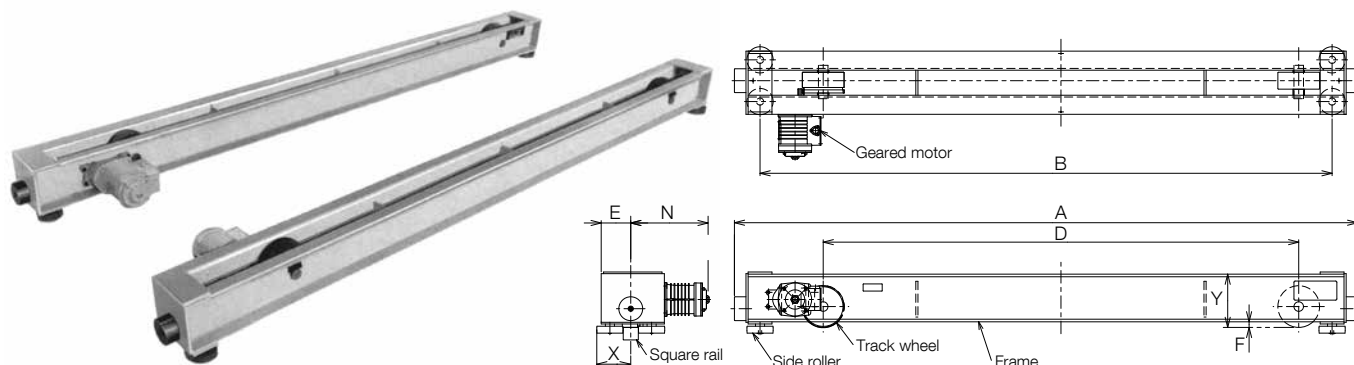
•When planning a girder or cart, contact your nearest Kito distributor.

•Please ensure that you carry out proper earthing work using an earth wire.

If you are using an earth brush (optional), please remove any paint or rust from the rails to ensure proper earthing.

# End carriage specifications

## Motorized overhead double girder end carriage specifications



| WLL<br>(t) | Max.<br>span<br>(m) | Type      | Traveling motor output (kWx2)<br>50/60 Hz (m/min) |           |            | Applicable<br>square<br>rail<br>(mm) | Max.<br>wheel<br>pressure<br>(kN) | Wheel<br>diameter<br>(mm) | Dimensions (mm) |      |      |                 |      |                 |     |     | Mass<br>(kg/set) |
|------------|---------------------|-----------|---|-----------|------------|--------------------------------------|-----------------------------------|---------------------------|-----------------|------|------|-----------------|------|-----------------|-----|-----|------------------|
|            |                     |           | L   | S         | H          |                                      |                                   |                           | A               | B    | D    | E <sup>*1</sup> | F    | N <sup>*2</sup> | X   | Y   |                  |
|            |                     |           | 10/12   | 20/24     | 30/36      |                                      |                                   |                           |                 |      |      |                 |      |                 |     |     |                  |
| 3          | 15                  | WEO030-15 | 0.21/0.25   | 0.21/0.25 | 0.34/0.4   |                                      | 31.4                              | 175                       | 2615            | 2400 | 1995 | 124             |      | 325             |     |     | 382              |
|            | 21                  | WEO030-21 |   |           |            | □50                                  |                                   |                           | 2845            | 2630 | 2195 |                 |      |                 | 143 |     | 449              |
|            | 27                  | WEO030-27 | 0.34/0.4  | 0.34/0.4  | 0.63/0.75  |                                      | 44.1                              | 210                       | 3395            | 3180 | 2140 | 128             |      | 375             |     | 224 | 504              |
| 5          | 15                  | WEO050-15 |   |           |            |                                      |                                   |                           | 2845            | 2630 | 2195 |                 |      |                 |     |     | 449              |
|            | 21                  | WEO050-21 |   |           |            |                                      |                                   |                           | 3095            | 2855 | 2390 | 134             |      | 444             |     |     | 554              |
|            | 27                  | WEO050-27 |   |           |            |                                      |                                   |                           | 3425            | 3185 | 2590 |                 | 23.5 |                 |     |     | 736              |
| 7.5        | 15                  | WEO075-15 |   |           | 1.25/1.5   |                                      | 73.5                              | 250                       | 3098            | 2855 | 2395 |                 |      |                 |     | 274 | 686              |
|            | 21                  | WEO075-21 | 0.63/0.75   | 0.63/0.75 |            | □55·□60                              |                                   |                           |                 |      |      | 138             |      | 445             | 162 |     | 799              |
|            | 27                  | WEO075-27 |   |           |            |                                      | 79.4                              |                           | 3478            | 3235 | 2740 |                 |      |                 |     | 324 | 799              |
| 10         | 15                  | WEO100-15 |   |           |            |                                      | 73.5                              |                           | 3098            | 2855 | 2395 |                 |      |                 |     | 274 | 686              |
|            | 21                  | WEO100-21 |   |           |            |                                      | 82.3                              | 300                       | 3288            | 3045 | 2540 |                 |      |                 |     | 324 | 828              |
|            | 27                  | WEO100-27 |   |           |            |                                      | 100                               | 350                       | 3698            | 3430 | 2840 |                 |      | 529             |     | 328 | 1136             |
| 15         | 15                  | WEO150-15 |   |           |            |                                      |                                   |                           |                 |      |      |                 |      |                 |     |     |                  |
|            | 21                  | WEO150-21 |   |           | 1.25/1.5x2 |                                      |                                   |                           |                 |      |      |                 |      |                 |     |     |                  |
|            | 27                  | WEO150-27 | 1.25/1.5  | 1.25/1.5  |            | □55·□60·□65                          | 131                               | 400                       | 4028            | 3760 | 3150 | 150             | 27.5 | 530             | 189 |     | 1448<br>(1588)   |
| 20         | 15                  | WEO200-15 |   |           |            |                                      |                                   |                           |                 |      |      |                 |      |                 |     | 408 |                  |
|            | 21                  | WEO200-21 |   |           |            |                                      | 162                               | 450                       | 4528            | 4260 | 3500 |                 |      | 531             |     |     | 1945<br>(2083)   |
|            | 27                  | WEO200-27 |   |           |            |                                      |                                   |                           |                 |      |      |                 |      |                 |     |     |                  |

•WLL: Working Load Limit (t).

•Weights in parentheses are for high speed (H).

\*1: The size including the projection of the side roller plate.

\*2: The size with the standard speed (s) geared motor.

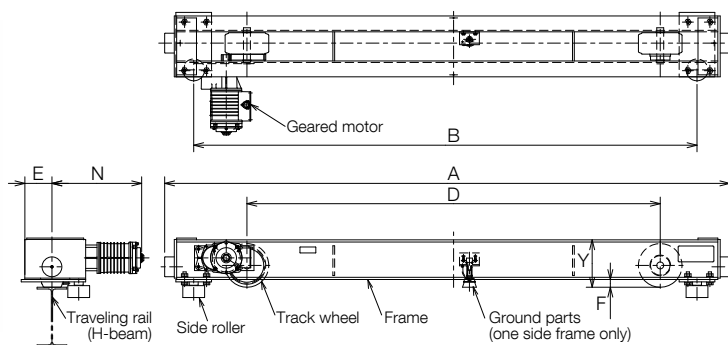
•When planning a girder or cart, contact your nearest Kito distributor.

# Urethane wheel motorized overhead double girder end carriage specifications

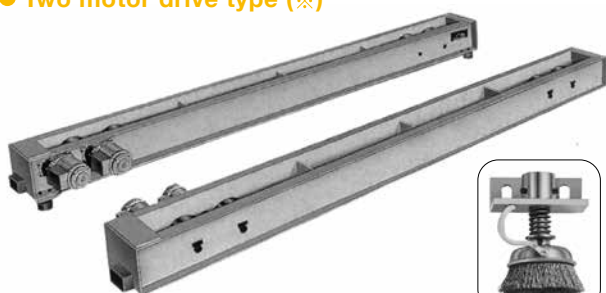
## ● One motor drive type



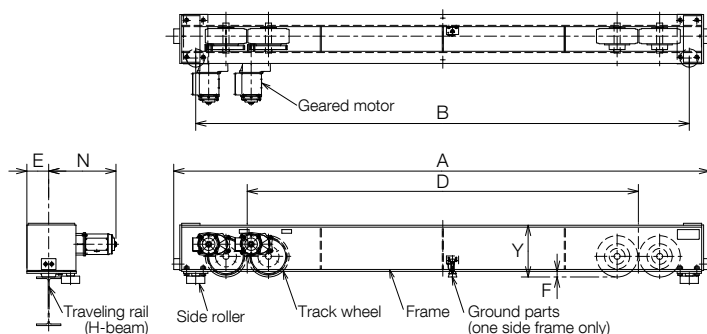
\*Option



## ● Two motor drive type (※)



\*Option



| WLL<br>(t) | Max.<br>span<br>(m) | Type        | Traveling motor output (kWx2)<br>50/60 Hz (m/min) |            |            | Applicable<br>square<br>rail<br>(mm) | Max.<br>wheel<br>pressure<br>(kN) | Recommended<br>wheel<br>pressure<br>(kN) | Wheel<br>diameter<br>(mm) | Dimensions (mm) |      |      |                 |    |                 |     | Mass<br>(kg/set) |
|------------|---------------------|-------------|---|------------|------------|--------------------------------------|-----------------------------------|--|---------------------------|-----------------|------|------|-----------------|----|-----------------|-----|------------------|
|            |                     |             | L   | S          | H          |                                      |                                   |  |                           | A               | B    | D    | E <sup>*4</sup> | F  | N <sup>*5</sup> | Y   |                  |
|            |                     |             | 10/12   | 20/24      | 30/36      |                                      |                                   |  |                           |                 |      |      |                 |    |                 |     |                  |
| 3          | 15                  | CWEO030-15  | 0.63/0.75   | 0.63/0.75  |            |                                      | 33.3                              | 25.0                                     | 220                       | 2851            | 2539 | 2085 | 155             |    | 459             |     | 524              |
|            | 21                  | CWEO030-21  |   |            |            |                                      | 41.2                              | 31.0                                     | 260                       | 3111            | 2796 | 2295 | 153             |    | 560             | 239 | 653              |
|            | 27                  | CWEO030-27  |   |            | 1.25/1.5   | 150-175-200                          | 43.1                              | 32.3                                     | 300                       | 3211            | 2896 | 2140 | 163             |    | 564             | 289 | 881              |
| 5          | 15                  | CWEO050-15  | 1.25/1.5  | 1.25/1.5   |            |                                      | 41.2                              | 31.0                                     | 260                       | 3111            | 2796 | 2295 | 153             |    | 560             | 239 | 653              |
|            | 21                  | CWEO050-21  |   |            |            |                                      | 61.7                              | 46.2                                     | 340                       | 3091            | 2776 | 2230 | 177             | 39 | 553             |     | 930              |
|            | 27                  | CWEO050-27  | 1.25/1.5x2  | 1.25/1.5x2 | 1.25/1.5x2 | 175-200                              | 41.2                              | 31.0                                     | 260x2                     | 3771            | 3456 | 2700 | 149             |    | 559             | 289 | 1160             |
| 7.5        | 15                  | CWEO075-15  | 1.25/1.5  | 1.25/1.5   | 1.25/1.5   | 150-175-200                          | 61.7                              | 46.2                                     | 340                       | 3091            | 2776 | 2230 | 177             |    | 553             |     | 930              |
|            | 21                  | CWEO075-21  |   |            |            |                                      | 41.2                              | 31.0                                     | 260x2                     | 3771            | 3456 | 2700 | 149             |    | 559             |     | 1160             |
|            | 27                  | CWEO075-27  |   |            |            | 175-200                              | 43.1                              | 32.3                                     | 300x2                     | 4059            | 3701 | 2900 | 159             | 46 | 564             | 346 | 1438             |
| 10         | 15                  | CWEO100-15  |   |            |            |                                      | 41.2                              | 31.0                                     | 260x2                     | 3771            | 3456 | 2700 | 149             | 39 | 559             | 289 | 1160             |
|            | 21                  | CWEO100-21  | 1.25/1.5x2  | 1.25/1.5x2 | 1.25/1.5x2 |                                      | 43.1                              | 32.3                                     | 300x2                     | 4059            | 3701 | 2900 | 159             |    | 564             | 346 | 1438             |
|            | 27                  | CWEO100-27  |   |            |            |                                      |                                   |  |                           | 4412            | 4063 | 3220 |                 |    |                 | 426 | 1672             |
| 15         | 15                  | CWEO150-15  |   |            |            | 200-250                              | 61.7                              | 46.2                                     | 340x2                     | 3992            | 3643 | 2790 | 180             |    | 554             | 346 | 1378             |
|            | 21                  | CWEO150-21  |   |            |            |                                      |                                   |  |                           | 4412            | 4063 | 3220 |                 |    |                 |     | 1672             |
|            | 27                  | CWEO150-27  |   |            | —          |                                      |                                   |  |                           | 5172            | 4823 | 3800 |                 |    | 593             |     | 2575             |
|            | 27                  | CWEO150-27H | —   | —          | 2.2x2      |                                      |                                   |  |                           | 5292            | 4943 | 3840 |                 | 46 | 709             |     | 2696             |
| 20         | 15                  | CWEO200-15  | 1.25/1.5x2  | 1.25/1.5x2 | —          |                                      |                                   |  |                           | 4742            | 4393 | 3380 |                 |    | 593             |     | 2214             |
|            | 15                  | CWEO200-15H | —   | —          | 2.2x2      |                                      |                                   |  |                           | 4872            | 4523 | 3420 |                 |    | 709             | 426 | 2332             |
|            | 21                  | CWEO200-21  | 1.25/1.5x2  | 1.25/1.5x2 | —          | 250-300                              | 81.3                              | 60.0                                     | 440x2                     | 5172            | 4823 | 3800 | 212             |    | 593             |     | 2575             |
|            | 21                  | CWEO200-21H | —   | —          | 2.2x2      |                                      |                                   |  |                           | 5292            | 4943 | 3840 |                 |    | 709             |     | 2696             |
|            | 27                  | CWEO200-27  | 1.25/1.5x2  | 1.25/1.5x2 | —          |                                      |                                   |  |                           | 5422            | 5073 | 4070 |                 |    | 593             |     | 2944             |
|            | 27                  | CWEO200-27H | —   | —          | 2.2x2      |                                      |                                   |  |                           | 5552            | 5203 | 4110 |                 |    | 709             |     | 3067             |

●WLL: Working Load Limit (t).

\*1: Contact your nearest Kito distributor for sizes other than listed above.

\*2: Wheel pressure under the WLL beneath the end carriage with standard girder and maximum span to verify the endurance of the structure.

\*3: In case of regular use of more than 80% of WLL or frequent operation at a particular position, select an end carriage to make the wheel pressure the same as or less than the recommended wheel pressure.

\*4: The size including the projection of the side roller plate. \*5: The size with the standard speed (s) geared motor.

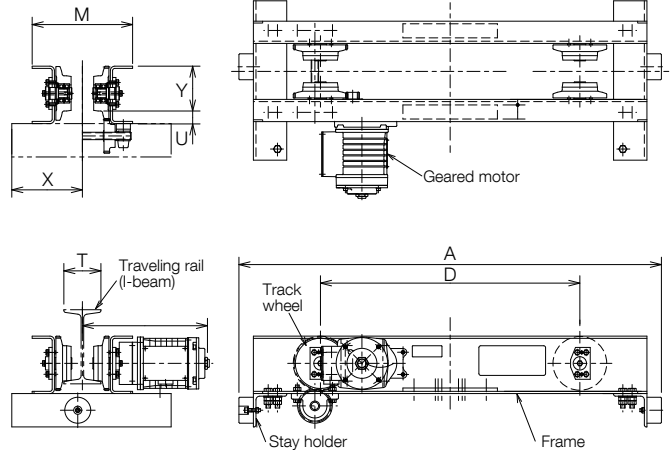
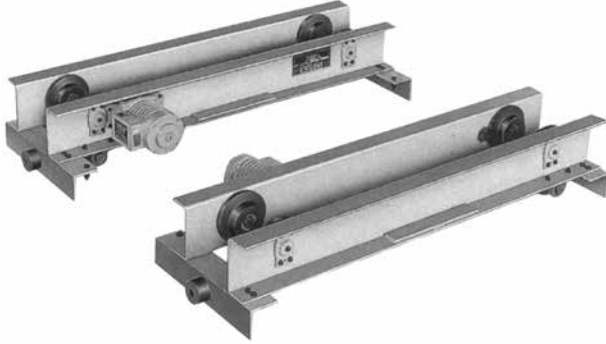
●When planning a girder or cart, contact your nearest Kito distributor.

●Please ensure that you carry out proper earthing work using an earth wire.

If you are using an earth brush (optional), please remove any paint or rust from the rails to ensure proper earthing.

# End carriage specifications

## Motorized low-head end carriage specifications



| WLL<br>(t) | Max.<br>span<br>(m) | Type     | Traveling motor output (kWx2)<br>50/60 Hz (m/min) |           |                               | Applicable<br>traveling<br>rail<br>(mm) | Max.<br>wheel<br>pressure<br>(kN) | Wheel<br>diameter<br>(mm) | Dimensions (mm) |      |       |    |                 |         |                 | Mass<br>(kg/set) |
|------------|---------------------|----------|---|-----------|-------------------------------|---|-----------------------------------|---------------------------|-----------------|------|-------|----|-----------------|---------|-----------------|------------------|
|            |                     |          | L   | S         | H                             |   |                                   |                           | A               | D    | M     | U  | N <sup>*1</sup> | X       | Y <sup>*2</sup> |                  |
|            |                     |          | 10/12   | 20/24     | 30/36                         |   |                                   |                           |                 |      |       |    |                 |         |                 |                  |
| 1          | 6                   | EL010- 6 |   |           |                               |   |                                   |                           | 1140            | 700  |       |    |                 |         |                 | 132              |
|            | 9                   | EL010- 9 | 0.21/0.25   | 0.21/0.25 | 0.34/0.4(B)<br>0.21/0.25(E,Z) | 75-100-125-150                          | 4.51                              | 95                        | 1500            | 1060 | T+171 | 34 | 288+T/2         | 241-T/2 | 121             | 150              |
|            | 12                  | EL010-12 |   |           |                               |   |                                   |                           | 1840            | 1400 |       |    |                 |         |                 | 164              |
|            | 15                  | EL030-15 | 0.34/0.4  | 0.34/0.4  | 0.63/0.75(B,Z)<br>0.34/0.4(E) | 125-150                                 | 15.7                              | 140                       | 2200            | 1760 | T+231 | 40 | 336+T/2         |         | 174             | 340              |
| 2          | 6                   | EL020- 6 |   |           |                               |   |                                   |                           | 1140            | 700  |       |    |                 |         |                 | 152              |
|            | 9                   | EL020- 9 | 0.21/0.25   | 0.21/0.25 | 0.34/0.4(B)<br>0.21/0.25(E,Z) | 100-125-150                             | 9.31                              | 110                       | 1500            | 1060 | T+191 | 36 | 288+T/2         |         | 138             | 172              |
|            | 12                  | EL020-12 |   |           |                               |   |                                   |                           | 1840            | 1400 |       |    |                 |         | 165             | 202              |
|            | 15                  | EL030-15 | 0.34/0.4  | 0.34/0.4  | 0.63/0.75(B,Z)<br>0.34/0.4(E) | 125-150                                 | 15.7                              | 140                       | 2200            | 1760 | T+231 | 40 | 336+T/2         |         | 174             | 340              |
| 3          | 6                   | EL030- 6 |   |           | 0.34/0.4(B)<br>0.21/0.25(E,Z) |   | 9.31                              | 110                       | 1140            | 700  | T+191 | 36 |                 | 281-T/2 | 165             | 160              |
|            | 9                   | EL030- 9 | 0.21/0.25   | 0.21/0.25 |                               | 100-125-150                             |                                   |                           |                 |      |       |    | 288+T/2         |         |                 |                  |
|            | 12                  | EL030-12 |   |           | 0.34/0.4                      |   | 10.5                              | 125                       | 1840            | 1400 | T+241 | 38 |                 |         | 162             | 234              |
|            | 15                  | EL030-15 |   |           | 0.63/0.75(B,Z)<br>0.34/0.4(E) |   |                                   |                           | 2200            | 1760 | T+231 |    |                 |         |                 | 340              |
| 5          | 6                   | EL050- 6 | 0.34/0.4  | 0.34/0.4  |                               |   | 15.7                              | 140                       |                 |      |       | 40 | 336+T/2         |         | 174             |                  |
|            | 9                   | EL050- 9 |   |           | 0.63/0.75                     | 125-150                                 |                                   |                           | 1500            | 1060 | T+211 |    |                 |         |                 | 270              |
|            | 12                  | EL050-12 |   |           |                               |   |                                   |                           |                 |      |       |    |                 |         |                 |                  |
|            | 15                  | EL050-15 | 0.63/0.75   | 0.63/0.75 | 0.63/0.75(E)                  |   | 17.6                              | 155                       | 2200            | 1760 | T+279 | 39 | 399+T/2         | 290-T/2 | 201             | 432              |

•WLL: Working Load Limit (t).

\*1: The size with the standard speed (s) geared motor.

\*2: The height from the track surface of the traveling rail to the top of the end carriage.

•To reinforce a connecting part of the rails with a plate on the rail web, make sure that the plate has a clearance for the end carriage.  
(Do not install the plate for 75 mm width rails or on the rail track.)

•Use I-beam for the traveling rail. Traveling rail I-100x75x5 is not available.

•When planning a girder or cart, contact your nearest Kito distributor.

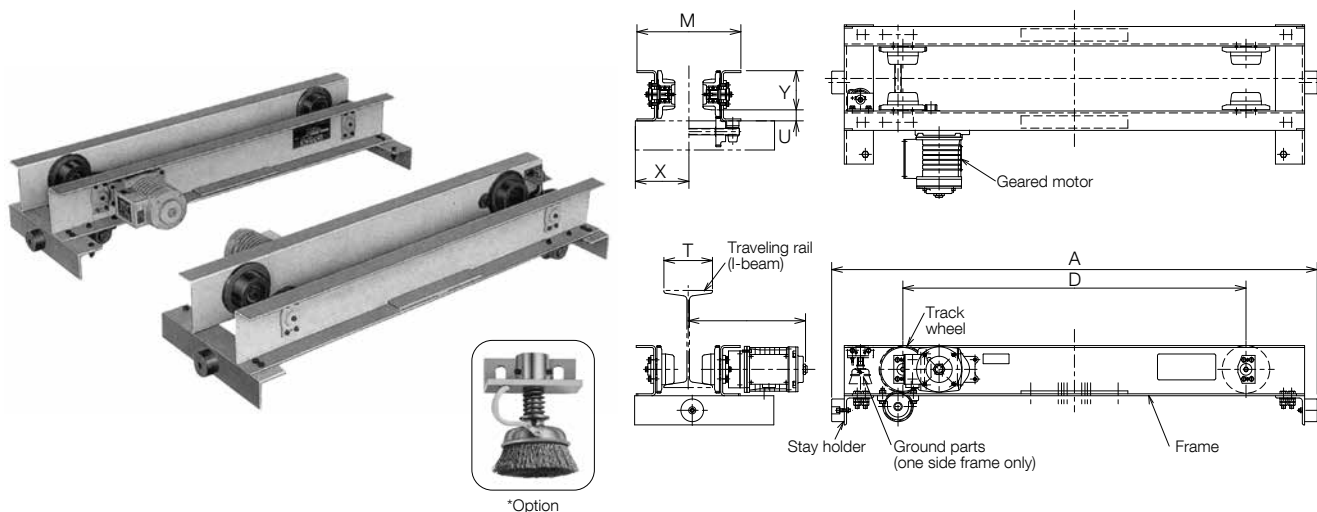
•E: 200V/50Hz, 200-220V/60Hz

•Z: 380-415V/50Hz, 440-460V/60Hz

•B: 220V/50Hz, 208-230V/60Hz

380V/50Hz, 380-460V/60Hz

## Urethane wheel motorized low-head end carriage specifications



| WLL<br>(t) | Max.<br>span<br>(m) | Type     | Traveling motor output (kWx2)<br>50/60 Hz (m/min) |           |                               | Applicable<br>traveling<br>rail<br>(mm) | Max.<br>wheel<br>pressure<br>(kN)<br><sup>*1</sup> | Recommended<br>wheel<br>pressure<br>(kN)<br><sup>*2</sup> | Wheel<br>diameter<br>(mm) | Dimensions (mm) |      |       |    |                    |         |                    | Mass<br>(kg/set) |
|------------|---------------------|----------|---|-----------|-------------------------------|---|--|---|---------------------------|-----------------|------|-------|----|--------------------|---------|--------------------|------------------|
|            |                     |          | L   | S         | H                             |   |  |   |                           | A               | D    | M     | U  | N<br><sup>*3</sup> | X       | Y<br><sup>*4</sup> |                  |
|            |                     |          | 10/12   | 20/24     | 30/36                         |   |  |   |                           |                 |      |       |    |                    |         |                    |                  |
| 1          | 9                   | CEL010-9 | 0.21/0.25   | 0.21/0.25 | 0.34/0.4(B)<br>0.21/0.25(E,Z) | 125-150                                 | 3.8  | 3.6   | 95                        | 1500            | 1060 | T+171 | 34 | T/2+288            | 241-T/2 | 121                | 143              |
| 2          | 9                   | CEL020-9 | 0.34/0.4  | 0.34/0.4  | 0.63/0.75                     |   | 6.7  | 6.3   | 125                       |                 |      | T+211 | 35 | T/2+336            | 281-T/2 | 165                | 231              |

•WLL: Working Load Limit (t).

\*1: Wheel pressure under the WLL beneath the end carriage with standard girder and maximum span to verify the endurance of the structure.

\*2: In case of regular use of more than 80% of WLL or frequent operation at a particular position, select an end carriage to make the wheel pressure the same as or less than the recommended wheel pressure.

\*3: The size including the projection of the side roller plate.

\*4: The size with the standard speed (s) geared motor.

•To reinforce a connecting part of the rails with a plate on the rail web, make sure that the plate has a clearance for the end carriage. (Do not install the plate for 75 mm width rails or on the rail track.)

### •Use I-beam for the traveling rail.

•When planning a girder or cart, contact your nearest Kito distributor.

•Please ensure that you carry out proper earthing work using an earth wire.

If you are using an earth brush (optional), please remove any paint or rust from the rails to ensure proper earthing.

•E: 200V/50Hz, 200-220V/60Hz

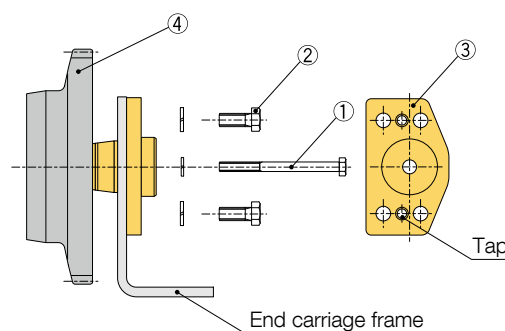
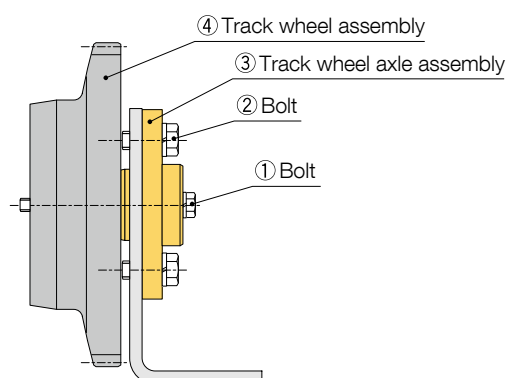
•Z: 380-415V/50Hz, 440-460V/60Hz

•B: 220V/50Hz, 208-230V/60Hz

380V/50Hz, 380-460V/60Hz

## Track wheel and track wheel axle construction

With respect to a low-head end carriage, both the track wheel and track wheel axle are designed for easy detaching, thus reducing installation and maintenance time.

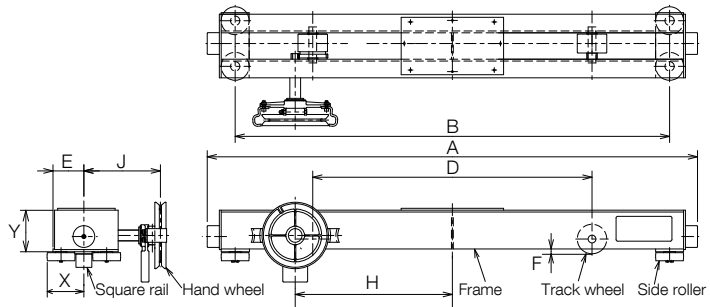


# End carriage specifications

## Geared overhead end carriage specifications



Hand wheel driving shaft and hand chain are not included in geared end carriage.



| WLL<br>(t) | Max.<br>span<br>(m) | Type     | Applicable<br>square<br>rail<br>(mm) | Max.<br>wheel<br>pressure<br>(kN) | Wheel<br>diameter<br>(mm) | Dimensions (mm) |      |     |                 |      |     |     |     |                 | Mass<br>(kg/set) |
|------------|---------------------|----------|--------------------------------------|-----------------------------------|---------------------------|-----------------|------|-----|-----------------|------|-----|-----|-----|-----------------|------------------|
|            |                     |          |                                      |                                   |                           | A               | B    | D   | E <sup>*1</sup> | F    | H   | J   | X   | Y <sup>*2</sup> |                  |
| 1          | 9                   | GO010- 9 | □32-□38<br>□40-□45                   | 9.31                              | 95                        | 1580            | 1400 | 900 | 100             | 15.5 | 507 | 247 | 119 | 147             | 99               |
|            | 12                  | GO010-12 |                                      |                                   |                           |                 |      |     |                 |      |     |     |     |                 |                  |
| 2          | 9                   | GO020- 9 | □45-□50                              | 17.6                              | 125                       | 1590            | 1400 | 900 | 120             | 18.5 | 509 | 252 | 123 | 172             | 130              |
|            | 12                  | GO020-12 |                                      |                                   |                           |                 |      |     |                 |      |     |     |     |                 |                  |
| 3          | 9                   | GO030-9  | □50                                  | 20.6                              | 140                       | 1590            | 1400 | 900 | 135             | 18.5 | 521 | 257 | 143 | 202             | 156              |
|            | 12                  | GO030-12 |                                      |                                   |                           |                 |      |     |                 |      |     |     |     |                 |                  |
| 5          | 9                   | GO050-9  | □50                                  | 44.1                              | 210                       | 1590            | 1400 | 900 | 119             | 18.5 | 561 | 257 | 143 | 205             | 224              |
|            | 12                  | GO050-12 |                                      |                                   |                           |                 |      |     |                 |      |     |     |     |                 |                  |

•WLL: Working Load Limit (t).

\*1: The size including the projection of the side roller plate.

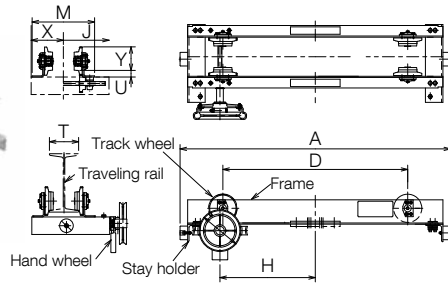
\*2: The height from the track surface of the traveling rail to the top of the end carriage.

•When planning a girder or cart, contact your nearest Kito distributor.

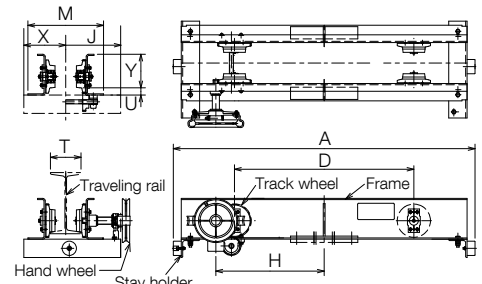
## Geared Low-head End Carriage Specifications



Hand wheel driving shaft and hand chain are not included in geared end carriage.



● 1t to 2t



● 3t to 5t

| WLL<br>(t) | Max.<br>span<br>(m) | Type     | Applicable<br>traveling<br>rail<br>(mm) | Max.<br>wheel<br>pressure<br>(kN) | Wheel<br>diameter<br>(mm) | Dimensions (mm) |      |       |         |       |    |         |                 | Mass<br>(kg/set) |
|------------|---------------------|----------|---|-----------------------------------|---------------------------|-----------------|------|-------|---------|-------|----|---------|-----------------|------------------|
|            |                     |          |   |                                   |                           | A               | D    | H     | J       | M     | U  | J       | Y <sup>*1</sup> |                  |
| 1          | 6                   | GL010- 6 | 75-100-125-150                          | 4.5                               | 95                        | 1390            | 950  | 490   | T/2+228 | T+171 | 34 | 241-T/2 | 121             | 106              |
|            | 12                  | GL010-12 |   |                                   |                           | 1840            | 1400 | 715   |         | T+211 |    |         |                 | 139              |
| 2          | 6                   | GL020- 6 | 100-125-150                             | 9.31                              | 110                       | 1480            | 1030 | 530   | T/2+221 | T+191 | 36 | 281-T/2 | 138             | 142              |
|            | 12                  | GL020-12 |   |                                   |                           | 1840            | 1400 | 715   |         | T+201 |    |         |                 | 166              |
| 3          | 6                   | GL030- 6 | 125-150                                 | 10.78                             | 125                       | 1480            | 880  | 531.3 | T/2+222 | T+221 | 38 | 315-T/2 | 165             | 162              |
|            | 12                  | GL030-12 |   |                                   |                           | 1840            | 1400 | 599.2 |         | T+231 |    |         |                 | 202              |
| 5          | 6                   | GL050- 6 | 125-150                                 | 15.7                              | 140                       | 1480            | 850  | 539   | T/2+234 | T+211 | 40 | 315-T/2 | 174             | 226              |
|            | 12                  | GL050-12 |   |                                   |                           | 1840            | 1400 | 579   |         | T+249 |    |         |                 | 292              |

•WLL: Working Load Limit (t).

\*1: The height from the track surface of the traveling rail to the top of the end carriage.

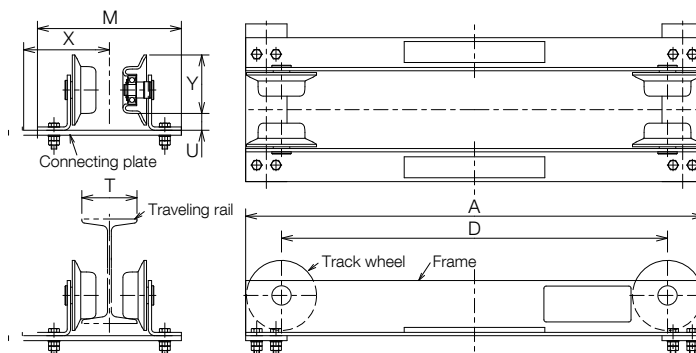
•To reinforce a connecting part of the rails with a plate on the rail web, make sure that the plate has a clearance for the end carriage.  
(Do not install the plate for 75mm width rails or on the rail track.)

•Use I-beam for the traveling rail. Traveling rail I-100x75x5 is not available.

•When planning a girder or cart, contact your nearest Kito distributor.

## Plain low-head end carriage specifications

- No side rollers for 0.5t (max. span 6m) and 1t (max. span 6m)



| WLL<br>(t) | Max.<br>span<br>(m) | Type    | Applicable<br>traveling<br>rail<br>(mm) | Max.<br>wheel<br>pressure<br>(kN) | Wheel<br>diameter<br>(mm) | Dimensions (mm) |   |     |       |    |         |     | Mass<br>(kg/set) |
|------------|---------------------|---------|---|-----------------------------------|---------------------------|-----------------|---|-----|-------|----|---------|-----|------------------|
|            |                     |         |   |                                   |                           | A               | B | D   | M     | U  | X       | Y * |                  |
| 0.5        | 3                   | PL005-3 | 75·100                                  | 1.76                              | 71                        | 470             |   | 350 | T+157 | 25 |         | 89  | 27               |
|            | 6                   | PL010-6 | 75·100-125                              | 3.5                               | 85                        | 830             |   | 700 | T+161 | 31 | 206-T/2 | 106 | 45               |
| 1          | 6                   | PL010-6 |   |                                   |                           |                 |   |     |       |    |         |     |                  |

•WLL: Working Load Limit (t).

\*: The height from the track surface of the traveling rail to the top of the end carriage.

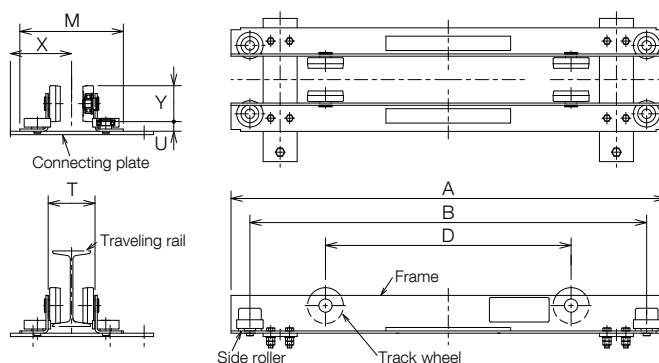
•To reinforce a connecting part of the rails with a plate on the rail web, make sure that the plate has a clearance for the end carriage.  
(Do not install the plate for 75mm width rails or on the rail track.)

•Use I-beam for the traveling rail except the size, 100x75x5.

•When planning a girder or cart, contact your nearest Kito distributor.

## Plain low-head end carriage specifications

- Side rollers for 0.5 t and 1 t (max. span 6 m)



| WLL<br>(t) | Max.<br>span<br>(m) | Type    | Applicable<br>traveling<br>rail<br>(mm) | Max.<br>wheel<br>pressure<br>(kN) | Wheel<br>diameter<br>(mm) | Dimensions (mm) |      |     |       |    |         |     | Mass<br>(kg/set) |
|------------|---------------------|---------|---|-----------------------------------|---------------------------|-----------------|------|-----|-------|----|---------|-----|------------------|
|            |                     |         |   |                                   |                           | A               | B    | D   | M     | U  | X       | Y * |                  |
| 0.5        | 9                   | PL010-9 | 75·100-125                              | 3.92                              | 95                        | 1150            | 1050 | 650 | T+174 | 26 | 212-T/2 | 95  | 71               |
| 1          | 9                   | PL010-9 |   |                                   |                           |                 |      |     |       |    |         |     |                  |

•WLL: Working Load Limit (t).

\*: The height from the track surface of the traveling rail to the top of the end carriage.

•To reinforce a connecting part of the rails with a plate on the rail web, make sure that the plate has a clearance for the end carriage.  
(Do not install the plate for 75mm width rails or on the rail track.)

•Use I-beam for the traveling rail except the size, 100x75x5.

•When planning a girder or cart, contact your nearest Kito distributor.

# Geared motor specifications

## ■ Dimensions

\*Flange thickness of the geared motor at the fixing holes (n-oz) are 18mm.

\*f and y show distances from pinion center to both ends.

| Type       | Motor output (kW) |       | Pole | Power source |          | Dimensions (mm) |          |     |          |          |     |     |     |     |                                   |                                   |    | Mass (kg/set) |      |    |  |
|------------|-------------------|-------|------|--------------|----------|-----------------|----------|-----|----------|----------|-----|-----|-----|-----|-----------------------------------|-----------------------------------|----|---------------|------|----|--|
|            | 50 Hz             | 60 Hz |      | Overhead     | Low-head | a               |          | b   | c        |          | d   | e   | f   | y   | g                                 | h                                 | oi | n             | oz   |    |  |
|            |                   |       |      |              |          | Overhead        | Low-head |     | Overhead | Low-head |     |     |     |     |                                   |                                   |    |               |      |    |  |
| G1M□025L-□ | 0.21              | 0.25  | 4    | B,E,Z        | B,E,Z    | 290             | 281      | 256 | 25       | 142      | 60  | 146 | 193 | 57  | 56 <sup>0</sup> <sub>-0.046</sub> | 4                                 | 9  | 11            |      |    |  |
| G1M□025S-□ |                   |       |      | E            | E,Z      |                 |          |     |          |          |     |     |     |     |                                   |                                   |    |               |      |    |  |
| G1M□025H-□ |                   |       |      |              |          |                 |          |     |          |          |     |     |     |     |                                   |                                   |    |               |      |    |  |
| G1M□040T-□ | 0.34              | 0.4   | 4    | B,E,Z        | B,E,Z    | 300             | 291      | 266 | 34       | 29       | 156 | 70  | 161 | 215 | 66                                | 74 <sup>0</sup> <sub>-0.046</sub> | 4  | 9             | 15.5 | 15 |  |
| G1M□040L-□ |                   |       |      |              |          |                 |          |     |          |          |     |     |     |     |                                   |                                   |    |               |      |    |  |
| G1M□040S-□ |                   |       |      |              |          |                 |          |     |          |          |     |     |     |     |                                   |                                   |    |               |      |    |  |
| G1M□040H-□ |                   |       |      | E            | E        |                 |          |     | 29       | 156      | 70  | 161 | 215 | 66  | 74 <sup>0</sup> <sub>-0.046</sub> | 4                                 | 9  | 15            |      |    |  |
| G1M□075T-□ | 0.63              | 0.75  |      | B,E,Z        | B,E,Z    | 346             | 341      | 312 |          |          |     |     |     |     |                                   |                                   |    |               |      |    |  |

● Brake: DC disk brake. ● Brake torque: from 0 to 50% (for 0.25kW:30 to 80%) of motor rated torque. ● Dust and water protection: IP55 (specified by I.E.C.)

\*Flange thickness of the geared motor at the fixing holes (n-oz) are 17mm.

\*f and y show distances from pinion center to both ends.

| Type       | Motor output (kW) |       | Pole | Power source |          | Dimensions (mm) |          |     |          |          |     |     |     |       |     |    |                                    | Mass (kg/set) |    |    |  |
|------------|-------------------|-------|------|--------------|----------|-----------------|----------|-----|----------|----------|-----|-----|-----|-------|-----|----|------------------------------------|---------------|----|----|--|
|            | 50 Hz             | 60 Hz |      | Overhead     | Low-head | a               |          | b   | c        |          | d   | e   | f   | y     | g   | h  | oi                                 | n             | oz |    |  |
|            |                   |       |      |              |          | Overhead        | Low-head |     | Overhead | Low-head |     |     |     |       |     |    |                                    |               |    |    |  |
| G1M□075L-□ | 0.63              | 0.75  | 4    | B,E,Z        | E        | 400             | 393      | 355 | 45       | 38       | 156 | 90  | 154 | 122.6 | 210 | 70 | 90 <sup>0</sup> <sub>-0.054</sub>  | 11            | 26 |    |  |
| G1M□075S-□ |                   |       |      | B,E,Z        | B,E,Z    |                 |          |     |          |          |     |     |     |       |     |    |                                    |               |    |    |  |
| G1M□075H-□ |                   |       |      | E,Z          | E        |                 |          |     |          |          |     |     |     |       |     |    |                                    |               |    |    |  |
| G1MO150T-□ | 1.25              | 1.5   | 4    | B,E,Z        | —        | 433             | 426      | 388 | 65       | —        | 190 | 110 | 177 | 132.6 | 242 | 80 | 115 <sup>0</sup> <sub>-0.054</sub> | 13            | 45 | 36 |  |
| G1MO150L-□ |                   |       |      | E            | —        |                 |          |     |          |          |     |     |     |       |     |    |                                    |               |    |    |  |
| G1MO150S-□ |                   |       |      | B,E,Z        | —        |                 |          |     |          |          |     |     |     |       |     |    |                                    |               |    |    |  |
| G1MO150H-□ |                   |       |      | E,Z          |          |                 |          |     |          |          |     |     |     |       |     |    |                                    |               |    |    |  |

● Brake: DC disk brake. ● Brake torque: from 0 to 50% of motor rated torque. ● Dust and water protection: IP55 (Specified by I.E.C.)

## How to read types (example)

### G1MO025 L-E

- Types of geared motors
- Types of end carriages
  - O: Overhead L: Low-head
- Motor outputs (50/60Hz)
  - 025: 0.21/0.25kW
  - 040: 0.34/0.4kW
  - 075: 0.63/0.75kW
  - 150: 1.25/1. kW
- Speed (50/60Hz)
  - L: 10/12m/mim (low speed)
  - S: 20/24m/mim (standard speed)
  - H: 30/36m/mim (high speed)
- Power sources
  - E: 200V 50Hz, 200-220V 60Hz
  - Z: 380-415V 50Hz, 440-460V 60Hz
  - B: 220V 50Hz, 208-230V 60Hz
  - 380V 50Hz, 380-460V 60Hz

### G1MO040 T-E

- Types of geared motors
- Types of end carriages
  - O: Overhead L: Low-head
- Motor outputs
  - 040: (0.25)+0.34/0.4
  - 075: (0.4)+0.63/0.75
  - 150: (0.75)+1.25/1.5
- Speed (50/60Hz)
  - T: 30/36m/mim (high speed)
- Power sources
  - E: 200V 50Hz, 200-220V 60Hz
  - Z: 380-415V 50Hz, 440-460V 60Hz
  - B: 220V 50Hz, 208-230V 60Hz
  - 380V 50Hz, 380-460V 60 Hz

## ■ Specifications of geared motor pinions

| Type       | Motor output (kW) |       | *Traveling speed (m/min) |       | *Motor revolutions (r.p.m) |       | Pinion               |     |                             |     |          |     |
|------------|-------------------|-------|--------------------------|-------|----------------------------|-------|----------------------|-----|-----------------------------|-----|----------|-----|
|            |                   |       |                          |       |                            |       | *Revolutions (r.p.m) |     | Tooth surface strength (kg) |     |          |     |
|            | 50 Hz             | 60 Hz | 50 Hz                    | 60 Hz | 50 Hz                      | 60 Hz |                      |     | Overhead                    |     | Low-head |     |
| G1M□025L-□ |                   |       | 10                       | 12    |                            |       | 155                  | 181 | 158                         | 134 | 105      | 90  |
| G1M□025S-□ | 0.21              | 0.25  | 20                       | 24    | 1410                       | 1650  | 314                  | 367 | 78                          | 66  | 52       | 44  |
| G1M□025H-□ |                   |       | 30                       | 36    |                            |       | 463                  | 541 | 53                          | 45  | 35       | 30  |
| G1M□040T-□ | 0.34              | 0.4   |                          |       | 1430                       | 1700  | 469                  | 557 | 83                          | 70  | 59       | 47  |
| G1M□040L-□ |                   |       | 10                       | 12    |                            |       | 132                  | 156 | 247                         | 208 | 165      | 139 |
| G1M□040S-□ | 0.34              | 0.4   | 20                       | 24    | 1430                       | 1700  | 255                  | 302 | 128                         | 107 | 85       | 72  |
| G1M□040H-□ |                   |       | 30                       | 36    |                            |       | 382                  | 453 | 86                          | 72  | 57       | 48  |
| G1M□075T-□ | 0.63              | 0.75  |                          |       | 1415                       | 1670  | 378                  | 445 | 162                         | 137 | 108      | 92  |
| G1M□075L-□ |                   |       | 10                       | 12    |                            |       | 77                   | 91  | 527                         | 446 | 323      | 255 |
| G1M□075S-□ | 0.63              | 0.75  | 20                       | 24    | 1415                       | 1670  | 146                  | 173 | 278                         | 235 | 158      | 134 |
| G1M□075H-□ |                   |       | 30                       | 36    |                            |       | 224                  | 253 | 182                         | 160 | 104      | 92  |
| G1M□150T-□ | 1.25              | 1.5   |                          |       | 1440                       | 1700  | 218                  | 256 | 372                         | 317 | —        | —   |
| G1MO150L-□ |                   |       | 10                       | 12    |                            |       | 65                   | 77  | 1022                        | 862 | —        | —   |
| G1MO150S-□ | 1.25              | 1.5   | 20                       | 24    | 1440                       | 1700  | 127                  | 149 | 522                         | 446 | —        | —   |
| G1MO150H-□ |                   |       | 30                       | 36    |                            |       | 192                  | 227 | 345                         | 292 | —        | —   |

\*Figures in the table are approximate values.

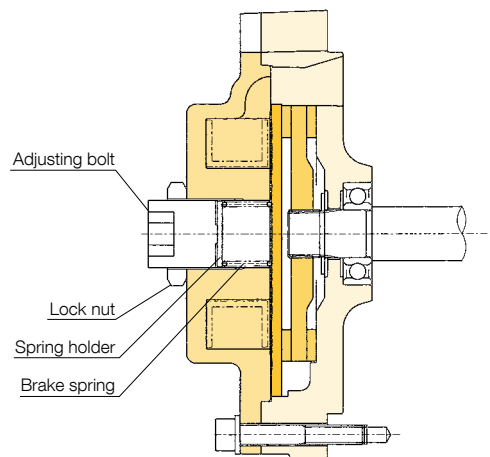
## ■ Details of pinions

| Type       | Motor output (kW)<br>50/60Hz | Pole | Pinion (mm) |                 |                                   |                                   |
|------------|------------------------------|------|-------------|-----------------|-----------------------------------|-----------------------------------|
|            |                              |      | Module      | Number of teeth | Addendum modification coefficient | Outside diameter                  |
| G1MO025□-□ | 0.21/0.25                    | 4    |             | 8               | 0.452                             | 27.1 <sup>0</sup> <sub>-0.1</sub> |
| G1MO025□-□ | 0.21:0.053/0.25:0.063        | 2/8  | 2.5         | 12              | 0.294                             | 36.5 <sup>0</sup> <sub>-0.2</sub> |
| G1MO040T-□ | 0.34/0.4                     | 4    |             | 8               | 0.452                             | 27.1 <sup>0</sup> <sub>-0.1</sub> |
| G1ML040T-□ |                              |      |             | 12              | 0.294                             | 36.5 <sup>0</sup> <sub>-0.2</sub> |
| G1MO040□-□ | 0.34/0.4                     | 4    |             | 8               | 0.460                             | 32.8 <sup>0</sup> <sub>-0.2</sub> |
| G1ML040□-□ | 0.34:0.084/0.4:0.1           | 2/8  | 3           | 12              | 0.294                             | 43.8 <sup>0</sup> <sub>-0.2</sub> |
| G1MO075T-□ | 0.63/0.75                    | 4    |             | 8               | 0.460                             | 32.8 <sup>0</sup> <sub>-0.2</sub> |
| G1ML075T-□ |                              |      |             | 12              | 0.294                             | 43.8 <sup>0</sup> <sub>-0.2</sub> |
| G1MO075□-□ | 0.63/0.75                    | 4    | 4.5         | 8               | 0.550                             | 50 <sup>0</sup> <sub>-0.2</sub>   |
| G1ML075□-□ | 0.63:0.16/0.75:0.19          | 2/8  | 3           | 21              | -0.04                             | 68.8 <sup>0</sup> <sub>-0.2</sub> |
| G1MO150T-□ | 1.25/1.5                     | 4    | 4.5         | 8               | 0.550                             | 50 <sup>0</sup> <sub>-0.2</sub>   |

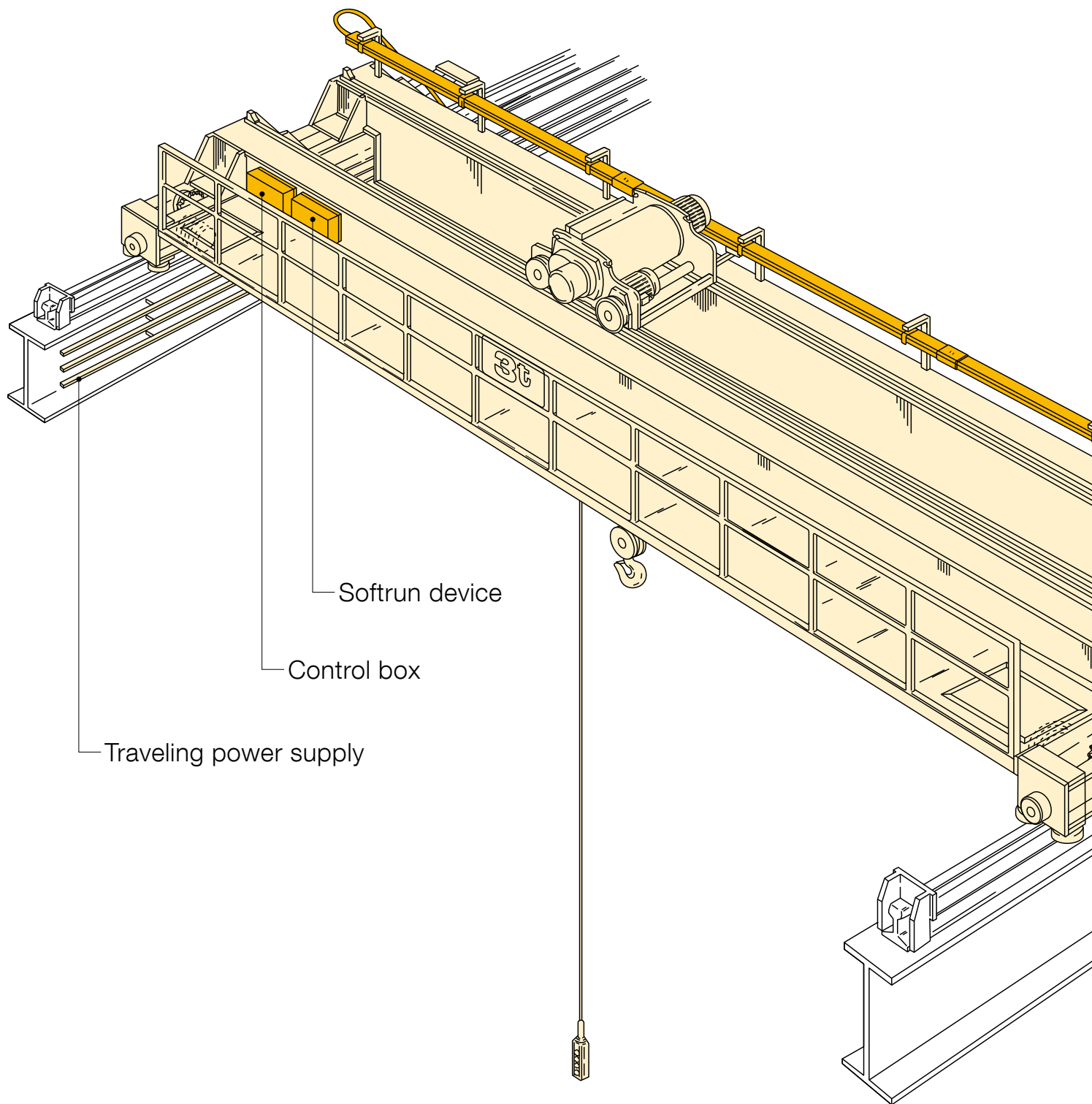
•Heat treatment: case hardened HRC: 57 to 63.

## ■ Brake torque adjustment

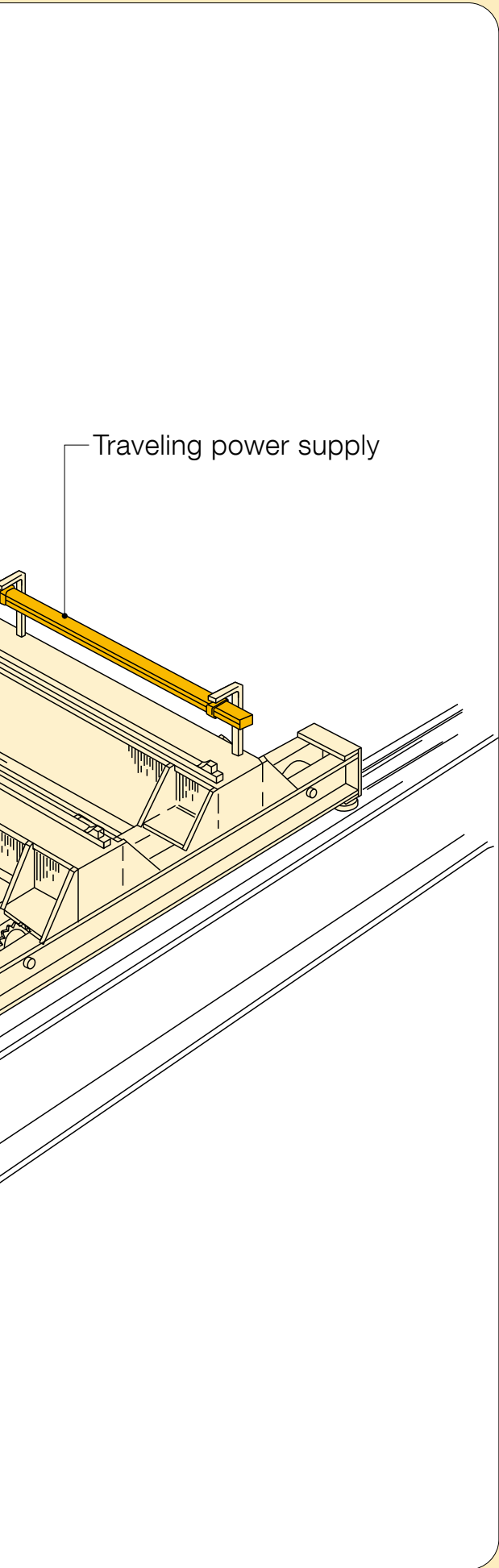
Torque can be adjusted within a range of 30 to 80% for a 0.25kW motor and 0 to 50% for motors exceeding 0.4kW of the rated torque by loosening the lock nut and setting the height of the adjusting bolt. Be sure to tighten the nut and fix the bolt after adjustment. Adjustment is the set-less type.



# Kito cranes can be fitted with peripheral equipment for greater durability, higher performance and greater

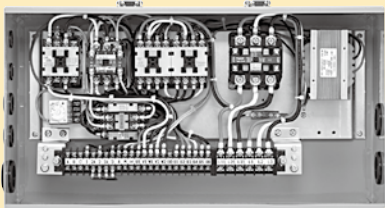


# operational efficiency.



## Control boxes

Dual speed



Single speed



For an electric chain hoist with an emergency stop device.

## Emergency stop device

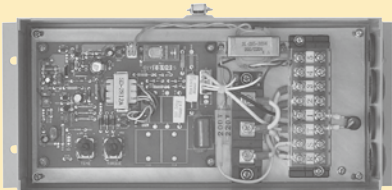


For an electric chain hoist



For a rope hoist (option)

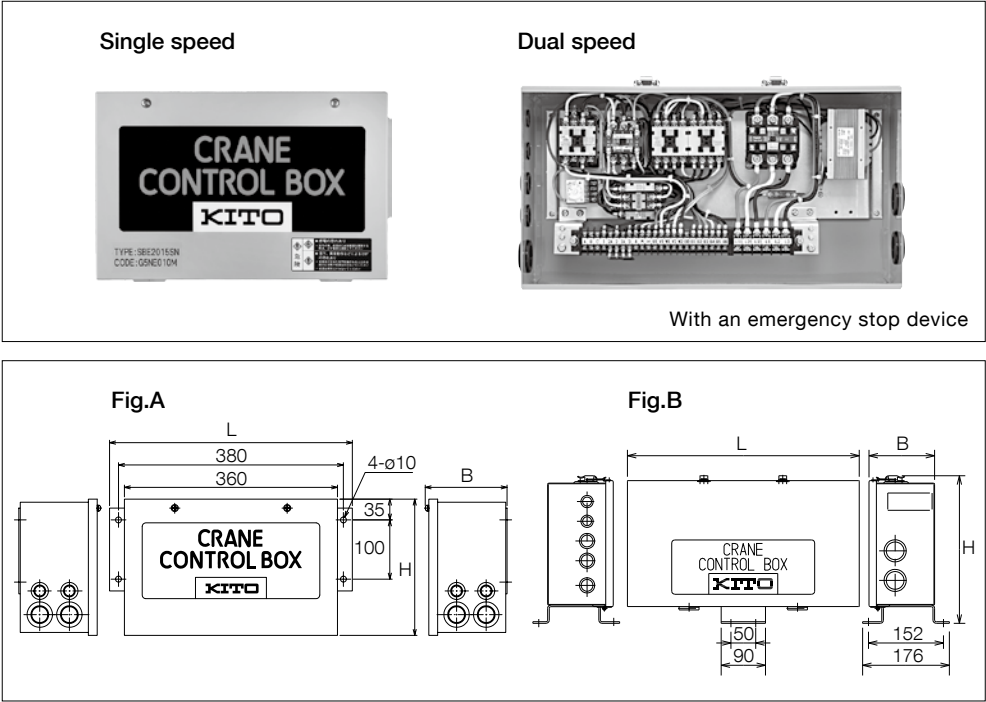
## Softrun device (option)



# Control boxes

## For electric chain hoist (ER2M)

This control box includes a built-in electromagnetic contactor and a transformer with control voltage of 24V. Other control voltages are available as an option. All models are equipped with an emergency stop device as standard.



| Type         |            | Geared motor output | Power supply   | Pendant control voltage | Rated current |           | Outline | Dimensions |     |     | Mass (kg/set) |
|--------------|------------|---------------------|----------------|-------------------------|---------------|-----------|---------|------------|-----|-----|---------------|
|              |            | Rated voltage       |                |                         | Control box   | Traveling |         | H          | B   | L   |               |
| Single speed | SBE015SNH  | ~0.75kWx2           | 200V 50Hz      |                         | 50A           | 11A       | Fig.A   | 230        | 140 | 410 | 7kg           |
|              | SBE015SNS  |                     | 200~220V 60Hz  |                         |               |           |         |            |     |     |               |
|              | SBE030SNH  | ~1.5kWx2            | 200V 50Hz      | AC24V                   | 75A           | 18A       |         |            |     |     |               |
|              | SBE030SNS  |                     | 200~220V 60Hz  |                         |               |           |         |            |     |     |               |
|              | SBE015SNX  | ~0.75kWx2           | 380V~415V 50Hz | 50A                     | 13A           |           |         |            |     |     |               |
|              | SBE015SNS  |                     | 440V 60Hz      |                         |               |           |         |            |     |     |               |
|              | SBE030SNX  | ~1.5kWx2            | 380V~415V 50Hz |                         |               |           |         |            |     |     |               |
|              | SBE030SNS  |                     | 440V 60Hz      |                         |               |           |         |            |     |     |               |
| Dual speed   | SBE015SDNH | ~0.75kWx2           | 200V 50Hz      | AC24V                   | 40A           | 11A       | Fig.B   | 300        | 133 | 470 | 11kg          |
|              | SBE015SDNS |                     | 200~220V 60Hz  |                         |               |           |         |            |     |     |               |

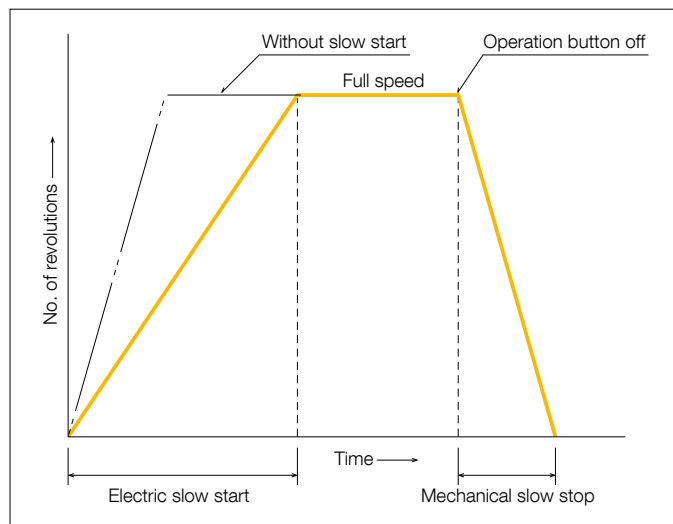
- Models other than above control box is available as special specification. Please ask your Kito local partners.
- Environment: ambient temperature: -20 to 40°C (no freezing) Installation site: Indoor, free of dust and corrosive gases.
- Protection class: IP20
- Color: single munsell 5Y7/1, dual munsell 6YR6/14

## Softrun device (option)

This device electrically controls motor speed which enables the crane to accelerate smoothly in travel and minimizes load swing at start-up.

It is highly suited for handling high inertia loads or operating long span cranes.

- Easily installed between the control box and geared motor. Wiring connections are simple.
- Applicable for all models of motorized end carriages.



# Power supply cables and accessories

## Power supply cable

| No. of cond. x Cross-sectional area | 3C x 2                         | 4C x 2    | 4C x 3.5    | 6C x 2    | 8C x 2    | 4C x 5.5    | 4C x 8    | 4C x 14                         | 4C x 22    | 4C x 30    |
|-------------------------------------|--------------------------------|-----------|-------------|-----------|-----------|-------------|-----------|---------------------------------|------------|------------|
| Cable diameter                      | ø11                            | ø12.3     | ø14.2       | ø14.5     | ø16.8     | ø17.5       | ø19.5     | ø24                             | ø30        | ø36        |
| Part No.                            | CTC3C x 2                      | CTC4C x 2 | CTC4C x 3.5 | CTC6C x 2 | CTC8C x 2 | CTC4C x 5.5 | CTC4C x 8 | CTC4C x 14                      | CTC4C x 22 | CTC4C x 30 |
| Type                                | Vinyl power supply cable (VCT) |           |             |           |           |             |           | Rubber power supply cable (2CT) |            |            |

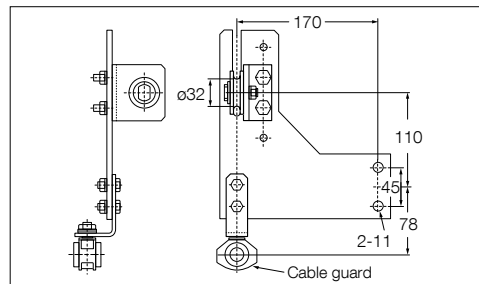
## Junction cable for electric chain hoist (ER2M) and rope hoist

Junction cable connecting the crane control box to the electric chain hoist. It is used for the power supply and operation circuits.

| No. of cond. x Cross-sectional area | 7C composite cable (4C x 3.5 + 3C x 0.75) | 9C composite cable (4C x 3.5 + 5C x 0.75) |
|-------------------------------------|---|---|
| Cable diameter                      | ø17.9                                     | ø18.0                                     |
| Part No.                            | CTC4C + 3C                                | CTC4C + 5C                                |
| Type                                | Vinyl power supply cable (VCT)            |   |

## Wire guide L

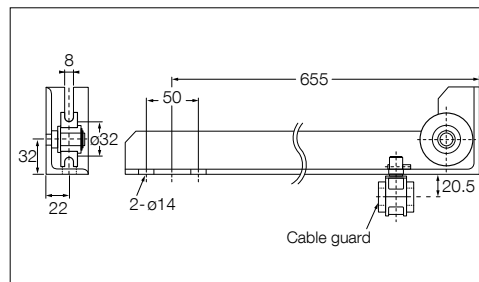
This guide is used to power the supply cable system (for low-head end carriage).



| Type  | Cable size     |                              | Cable guard |
|-------|----------------|------------------------------|-------------|
|       | Outer diameter | Wires x cross-sectional area |             |
| WGL16 | ø14.2          | 4C x 3.5                     | CG16        |
| WGL19 | ø17.0 to ø19.0 | 4C x 5.5<br>4C x 8           | CG19        |

## Wire guide O

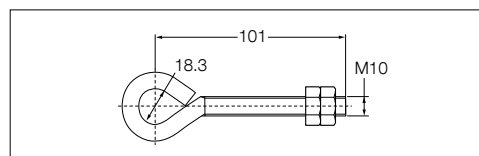
This guide is used to power the supply cable system (for both overhead and low-head types).



| Type  | Cable size     |                              | Cable guard |
|-------|----------------|------------------------------|-------------|
|       | Outer diameter | Wires x cross-sectional area |             |
| WGO16 | ø14.2          | 4C x 3.5                     | CG16        |
| WGO19 | ø17.0 to ø19.5 | 4C x 5.5<br>4C x 8           | CG19        |

## Wire bolt assembly

This bolt is used to fix messenger wires.



| Type | With ø4 to ø6 wire clip |
|------|-------------------------|
| WB   |                         |

## Allowable length (m) of power supply cable (200V)

| IA  | Cross-sectional area (mm²) |     |     |     |     |     |     |
|-----|----------------------------|-----|-----|-----|-----|-----|-----|
|     | 2                          | 3.5 | 5.5 | 8   | 14  | 22  | 38  |
| 10  | 25                         | 45  | 71  | 103 |     |     |     |
| 15  | 17                         | 30  | 47  | 69  | 121 |     |     |
| 20  | 12                         | 22  | 35  | 51  | 90  |     |     |
| 25  |                            | 18  | 28  | 41  | 72  | 114 |     |
| 30  |                            |     | 23  | 34  | 60  | 95  |     |
| 35  |                            |     | 20  | 29  | 51  | 81  | 111 |
| 40  |                            |     |     | 25  | 45  | 71  | 97  |
| 45  |                            |     |     | 23  | 40  | 63  | 86  |
| 50  |                            |     |     |     | 36  | 57  | 77  |
| 60  |                            |     |     |     | 30  | 47  | 64  |
| 70  |                            |     |     |     |     | 40  | 55  |
| 80  |                            |     |     |     |     | 35  | 48  |
| 90  |                            |     |     |     |     |     | 43  |
| 100 |                            |     |     |     |     |     | 38  |

### How to identify allowable power supply cable

- Internal wiring specification JEAC8001-1995 120-1 voltage drop

The voltage drop in low voltage lines is, as a rule, to be kept within 2% of the standard voltage of the trunk line and the branch circuit.

$$\text{Allowable length (m)} = \frac{1000}{30.8} \times \frac{\text{Cross-sectional area of single wire (mm}^2\text{)} \times \text{rated voltage} \times 0.02}{I A}$$

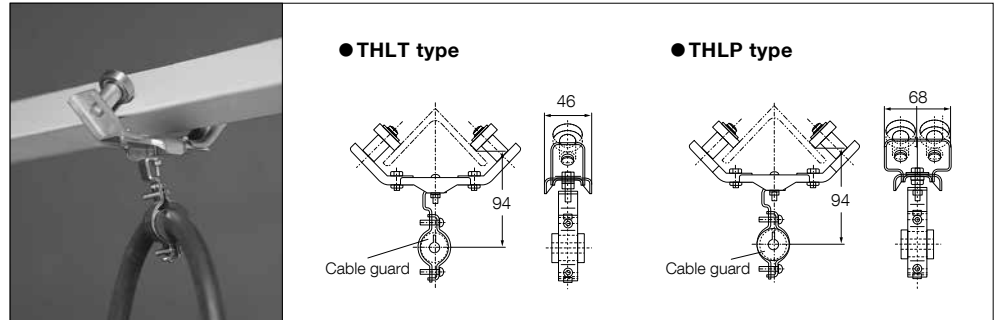
IA : Electric chain hoist or rope hoist

Rated current + Rated current of travel motor x 2

# Cable hangers

## Angled hanger

This hanger uses an angle steel to hang power supply cables. The THLP type is used to hang push-button cord.

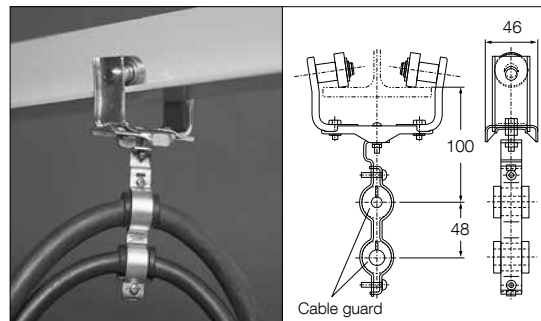


| Type       | Angle steel width      | Cable size |
|------------|------------------------|------------|
| THLT26S-75 | L-50x50x6 to L-75x75x9 | ø10 to ø26 |
| THLP26S-75 |                        |            |

## T-type hanger for wire rope hoists

This hanger is used to hang power supply cables and is suited for all sizes of cable and rails.

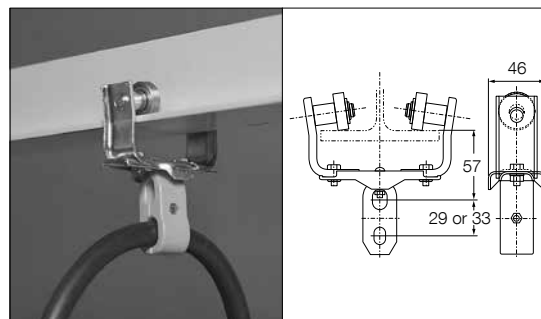
- Suited for hanging dynamic and operation cables for rope hoists.



| Type       | Rail width | Cable size   |            |
|------------|------------|--------------|------------|
|            |            | Upper        | Lower      |
| THI19W-100 | 76 to 152  | ø10 to ø22   |            |
| THI19W-175 | 127 to 178 |              |            |
| THI26W-100 | 76 to 152  | ø22.1 to ø26 | ø10 to ø22 |
| THI26W-175 | 127 to 178 |              |            |

## T-type hanger for electric chain hoist (ER2M)

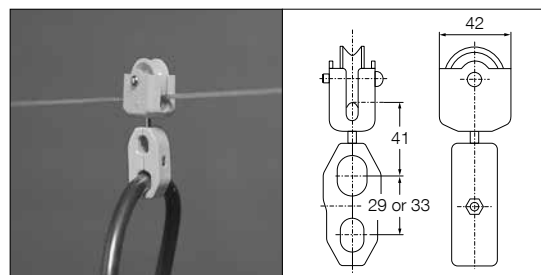
This hanger is used to hang power supply cables. It is applicable for all sizes of cable and rail widths, and is suited for compound cables.



| Type        | Rail width | Cable size               |
|-------------|------------|--------------------------|
| TTH14S-100V | 76 to 152  | ø11 to ø13 or ø13 to ø15 |
| TTH14S-175V | 127 to 178 |                          |
| TTH19S-100V | 76 to 152  | ø15 to ø17 or ø18 to ø20 |
| TTH19S-175V | 127 to 178 |                          |
| TTH21S-100V | 76 to 152  | ø15 to ø17 or ø20 to ø22 |
| TTH21S-175V | 127 to 178 |                          |

## Cable hanger

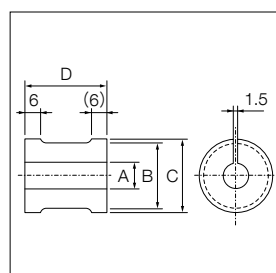
This hanger is used to hang power supply cables with messenger wires.



| Type  | Messenger wire | Cable size               |
|-------|----------------|--------------------------|
| CH14S | ø4 to ø6       | ø11 to ø13 or ø13 to ø15 |
| CH17S |                | ø17 to ø19 or ø18 to ø20 |
| CH19S |                | ø15 to ø17 or ø18 to ø20 |
| CH21S |                | ø15 to ø17 or ø20 to ø22 |

## Cable guard

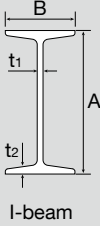
This guard is used to protect cables strung from T-type and angled hangers.



| Type | Cable size   | øA | øB | øC | D  |
|------|--------------|----|----|----|----|
| CG13 | ø10 to ø13   | 10 | 25 |    |    |
| CG16 | ø13.1 to ø16 | 13 |    | 28 |    |
| CG19 | ø16.1 to ø19 | 16 | 26 |    | 32 |
| CG22 | ø19.1 to ø22 | 19 |    |    |    |
| CG26 | ø22.1 to ø26 | 22 | 34 | 37 |    |

# Crane girder allowable span

## Single rail (JIS)

| Girder section   | Dimensions<br>A x B x t <sub>1</sub> x t <sub>2</sub> | (kg/m) | Allowable span (m) |             |             |             |             |       |       |       |      |
|--|---|--------|--------------------|-------------|-------------|-------------|-------------|-------|-------|-------|------|
|  |   |        | 500 kg             | 1.0 t       | 1.5 t       | 2.0 t       | 2.5 t       | 3.0 t | 5.0 t | 7.5 t | 10 t |
|  | I-200 x 100 x 7 x 10                                  | 26     | 6.0                | 4.6         |             |             |             |       |       |       |      |
|  |   |        | 6.0                | 4.6         |             |             |             |       |       |       |      |
|  | I-250 x 125 x 7.5 x 12.5                              | 38.3   | 8.6                | 6.7         | 5.5         | 4.5         | 4.0         |       |       |       |      |
|  |   |        | 8.3                | 6.1         |             |             |             |       |       |       |      |
|  | I-250 x 125 x 10 x 19                                 | 55.5   | 11.2               | 8.2         | 6.9         | 6.0         | 5.4         | 4.9   |       |       |      |
|  |   |        | 11.2               | 8.2         | 6.9         | 6.0         | 5.4         | 4.9   |       |       |      |
|  | I-300 x 150 x 8 x 13                                  | 48.3   | 10.2               | 9.0         | 6.8         | 6.1         | 5.6         | 4.9   |       |       |      |
|  |   |        | 10.0               | 7.6         |             |             |             |       |       |       |      |
|  | I-300 x 150 x 10 x 18.5                               | 65.5   | 11.6 (11.2)        | 10.2        | 8.5         | 7.7         | 6.8         | 6.2   | 3.8   |       |      |
|  |   |        | 11.6 (11.2)        | 10.2        | 8.5         | 7.4         | 6.7         | 6.4   | 4.3   |       |      |
|  | I-300 x 150 x 11.5 x 22                               | 76.8   | 11.6 (11.2)        | 11.2        | 9.4         | 8.2         | 7.5         | 6.9   | 5.4   |       |      |
|  |   |        | 11.6 (11.2)        | 11.2        | 9.4         | 8.2         | 7.5         | 6.9   | 5.0   |       |      |
|  | I-350 x 150 x 9 x 15                                  | 58.5   | 11.2               | 9.4         | 7.8         | 6.9         | 6.4         | 6.0   | 3.6   |       |      |
|  |   |        | 11.0               | 9.0         | 7.7         |             |             |       |       |       |      |
|  | I-350 x 150 x 12 x 24                                 | 87.2   | 11.6 (11.2)        | 11.6 (11.2) | 11.3 (11.2) | 9.9         | 9.0         | 8.3   | 6.6   | 4.5   |      |
|  |   |        | 11.6 (11.2)        | 11.6 (11.2) | 11.3 (11.2) | 9.9         | 9.0         | 8.3   | 6.1   | 4.2   | 3.1  |
|  | I-400 x 150 x 10 x 18                                 | 72     | 11.6 (11.2)        | 11.0        | 9.3         | 8.3         | 7.6         | 7.2   | 5.6   |       |      |
|  |   |        | 11.6 (11.2)        | 10.6        | 8.7         | 8.1         | 7.5         | 7.1   | 5.1   |       |      |
|  | I-400 x 150 x 12.5 x 25                               | 95.8   | 11.6 (11.2)        | 11.6 (11.2) | 11.6 (11.2) | 11.3 (11.2) | 10.3        | 9.2   | 6.8   | 5.2   | 3.9  |
|  |   |        |                    | 11.6 (11.2) | 11.6 (11.2) | 11.2        | 9.4         | 8.7   | 6.6   | 4.8   | 3.6  |
|  | I-450 x 175 x 11 x 20                                 | 91.7   | 11.6 (11.2)        | 11.6 (11.2) | 11.6 (11.2) | 10.5        | 9.6         | 8.8   | 6.8   | 5.6   |      |
|  |   |        |                    | 11.6 (11.2) | 11.0        | 10.7        | 9.9         | 9.3   | 6.8   |       |      |
|  | I-450 x 175 x 13 x 26                                 | 115    | 11.6 (11.2)        | 11.6 (11.2) | 11.6 (11.2) | 11.6 (11.2) | 11.6 (11.2) | 11.1  | 8.5   | 6.8   | 5.4  |
|  |   |        |                    |             |             | 11.6 (11.2) | 11.4 (11.2) | 10.5  | 8.1   | 6.5   | 4.8  |

■: For Kito electric hoist.

■: For Kito wire rope hoist.

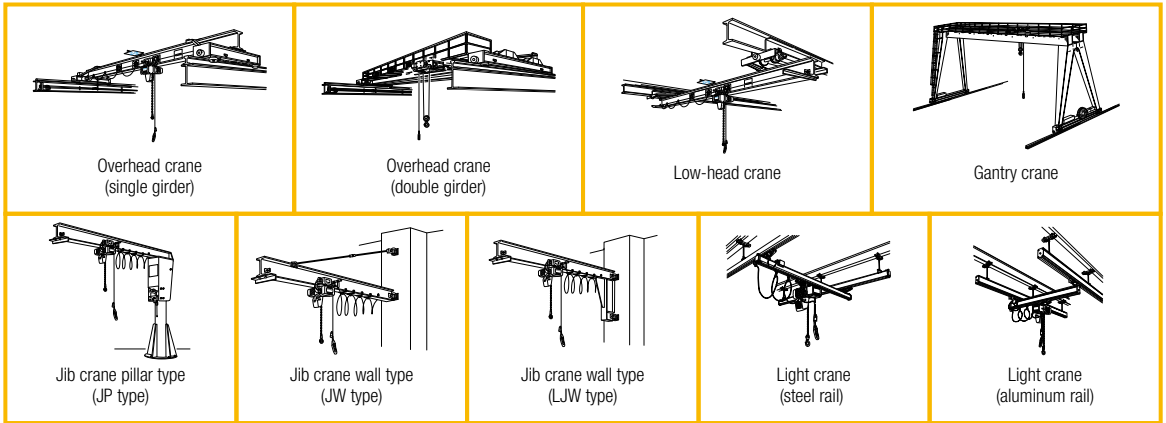
- The above data is calculated according to the crane standard in japan: deflection=within 1/1000 x span. Allowable bending stress=within 1390kg/cm<sup>2</sup>
- A stop drawing for the girder available on request.
- The figures in parentheses are data for low-head cranes.

Kito offers a variety of systems that are created by combining Kito chain sling 100 products with Kito's motorized and manual hoists and cranes. Special specifications are realized as made-to-order products.

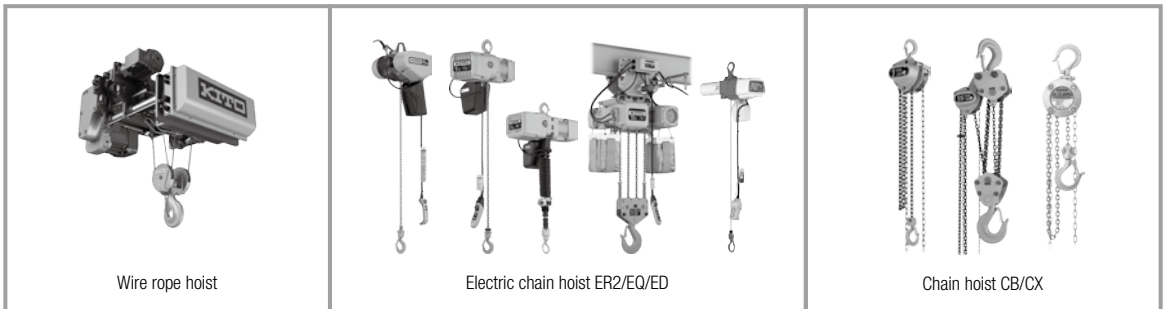
## Reference examples of special specification systems

In the situation where you wish to transport unique work pieces with high efficiency using dedicated slings, Kito chain sling 100 "special specification" products will support every requirement.

Each type  
of crane

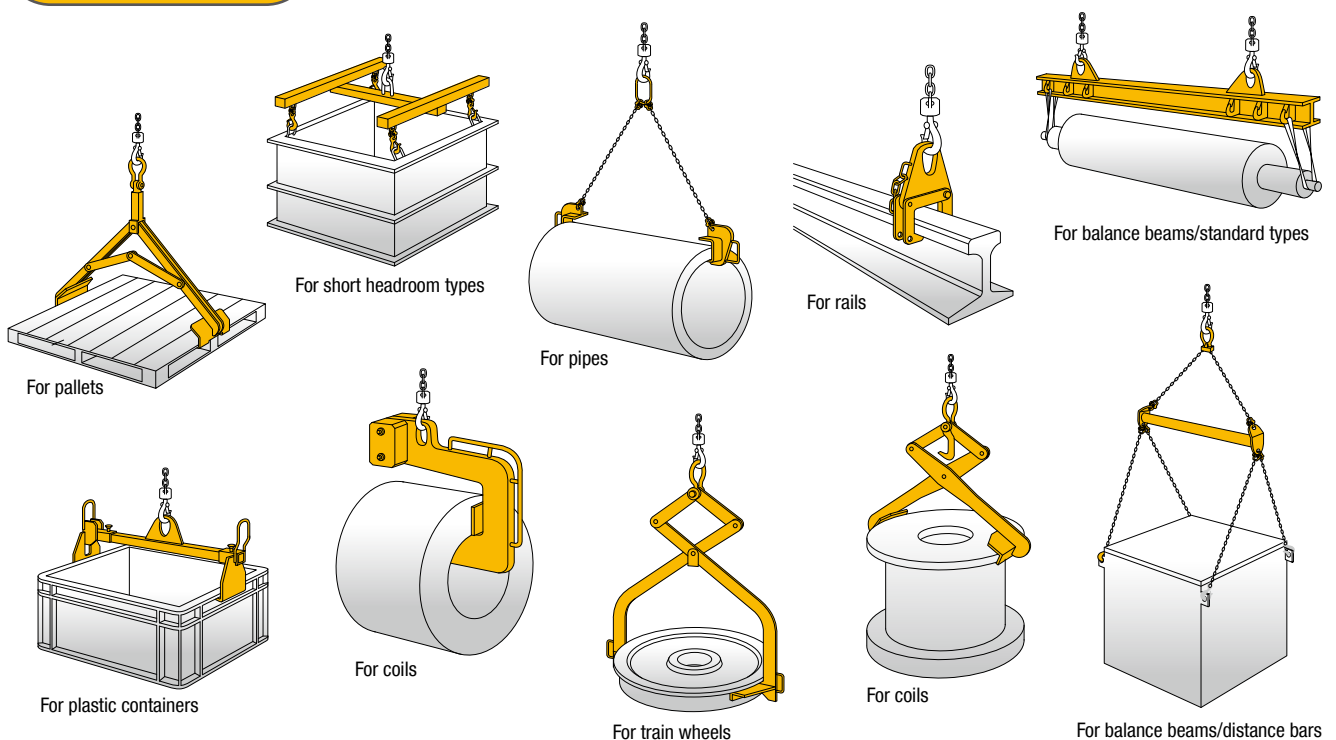


Each type  
of hoist



### Kito chain sling 100 special specifications

Products are made-to-order to match applications. (several examples are introduced below)





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harringtonhoists.com

#### Peerless

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