

TSUBAKI

CABLEVEYOR

(Cable Carriers)

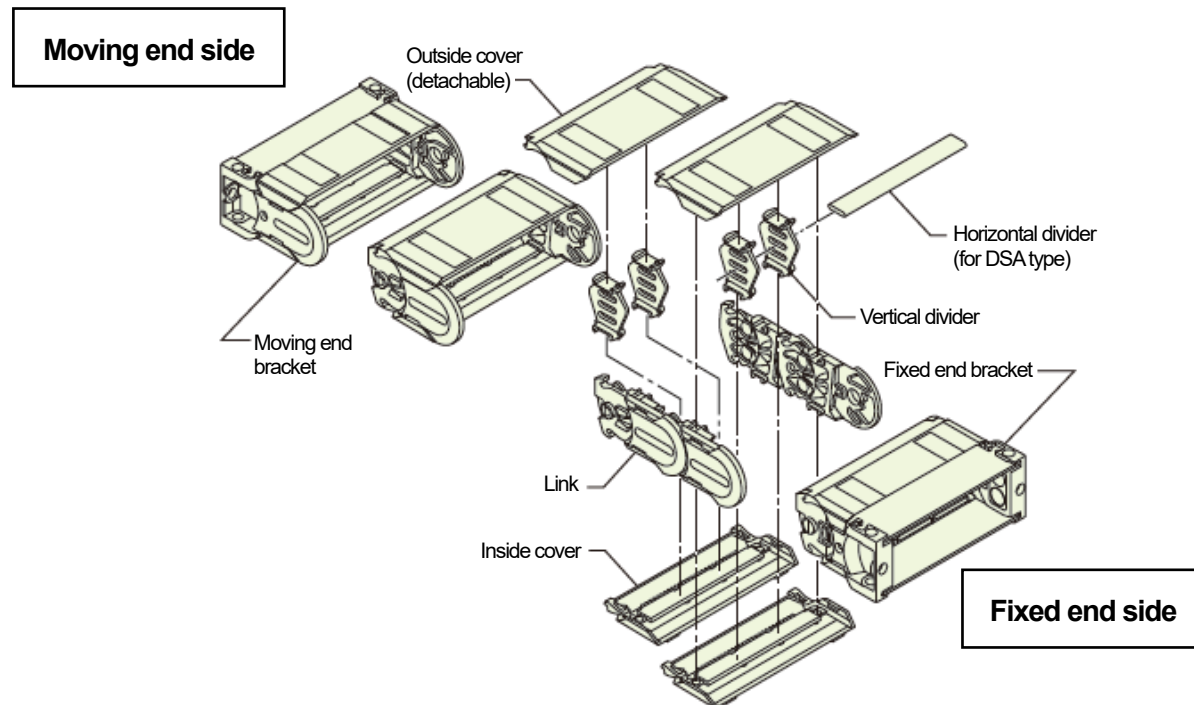
TKA30H20/TKA38H26/TKA45H36/TKA55H45

Caution: Wear the appropriate protective gear (safety glasses, gloves, safety shoes, etc.) when working.

1 Structure/Part Names

Caution: The following information is based on models with an outside openable stay (-80).

For models with an inside openable stay (-60), "outside cover" should be replaced with "inside cover," and "inside cover" should be replaced with "outside cover."



2 Assembly Precautions

- 1) Use only a **flathead screwdriver with a tip width of 7 mm** and a plastic hammer.
A flathead screwdriver with a wider tip may not fit inside holes and may damage parts if used.
- 2) This product is designed to be easily assembled and disassembled. If insertion of any part during assembly is difficult, the position may not be aligned properly. In such situations, do not forcibly insert the part, and check the position and adjust as necessary.
- 3) There are no procedures requiring the handle of the flathead screwdriver to be hit with a hammer, etc. Such actions should never be taken.

3**Delivery**

- 1) Brackets are delivered pre-installed, and dividers are delivered uninstalled.
- 2) The cable carrier is delivered in sections if its length exceeds the standard length (number of links shown below). The number of links is such that each section is an equivalent length that does not exceed the standard length.

[Standard length (No. of links)]

TKA30H20: 100 links

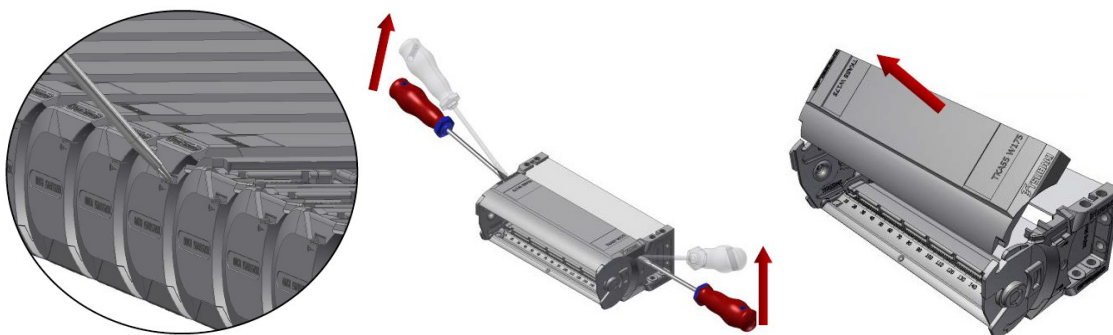
TKA38H26: 80 links

TKA45H36: 80 links

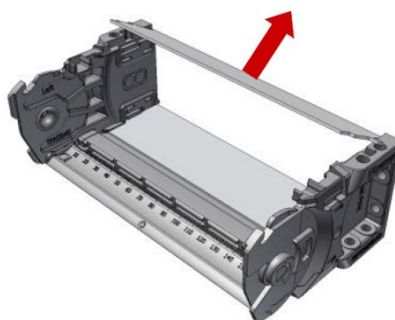
TKA55H45: 60 links

4**Connecting the Cable Carrier****4-1 Remove the outside cover.**

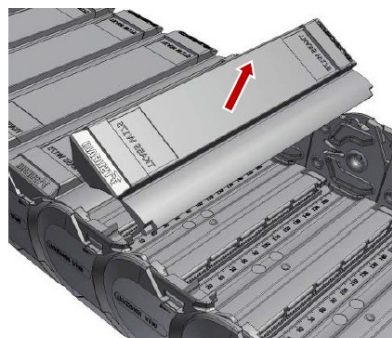
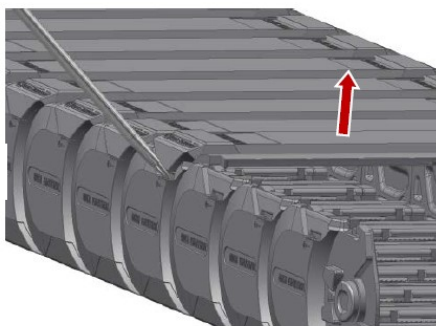
- 1) Remove the moving end outside cover (material: resin).
A screwdriver mark and small opening can be found where the moving end outside cover connects with the links.
Insert the flathead screwdriver into this opening and lift the handle to raise one side of the outside cover. Do the same for the other side.
Lift up on the raised sides to remove the moving end outside cover.



- 2) Remove the moving end outside bracket cover (material: aluminum).



- 3) Remove the outside cover from the links.
Remove all outside covers in the same way as 1) above.



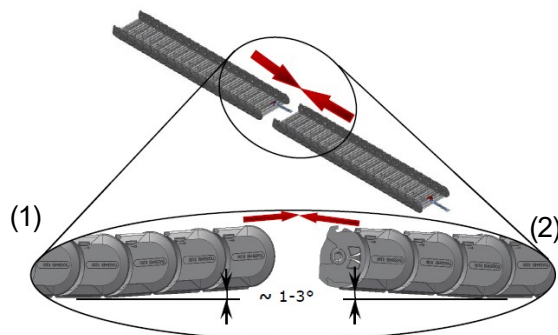
- 4) Remove the fixed end outside cover (material: resin) and outside bracket cover (material: aluminum) in the same way as 1) and 2) above.

4-2 Connect the links.

- 1) Spread the links on side (1), and make the links on side (2) narrower.

The structure is designed so that the link connections lift up slightly in such cases.

Caution: Make sure that the links are assembled correctly and that the inside cover is not detached from the links.



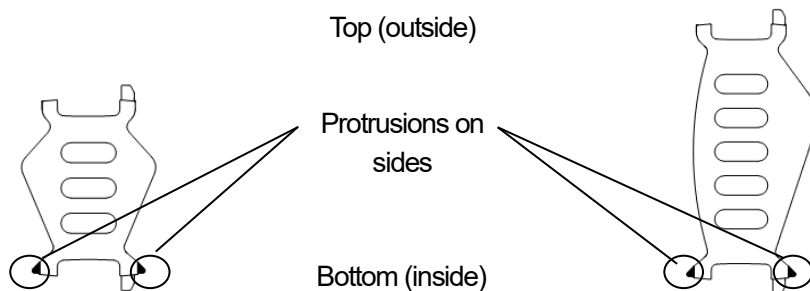
5 Inserting the Cables/Hoses

Caution: Vertical dividers are directional with a top and bottom.

Install the side of the vertical divider with protrusions on the sides onto the inside cover.

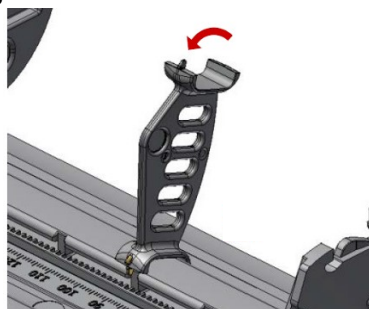
TKA30H20/TKA38H26

TKA45H36/TKA55H45



5-1 Install the vertical dividers.

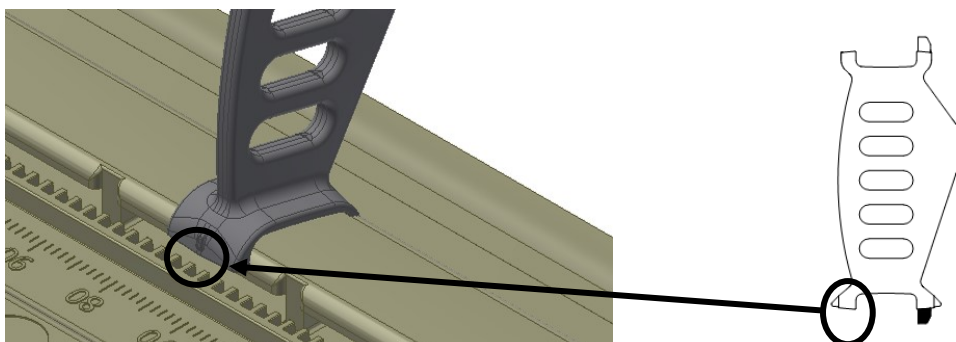
- 1) Install the vertical divider by hooking it onto the side of the inside cover without a scale and then turning it.



Caution: Each vertical divider can be installed to allow for sliding or fixed. See the figures below for how to install the dividers.

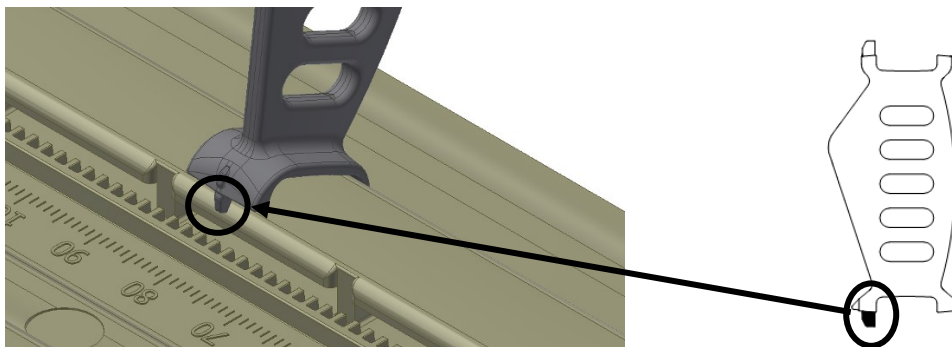
• Sliding installation

Install the divider with the side without a protrusion on the side of the inside cover with the scale to allow for sliding.



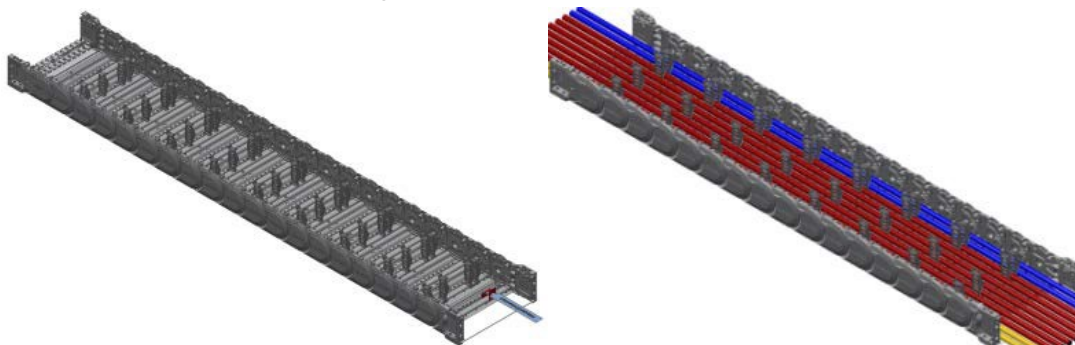
- Fixable installation

Install the divider with the side with a protrusion on the side of the inside cover with the scale to fix the position.



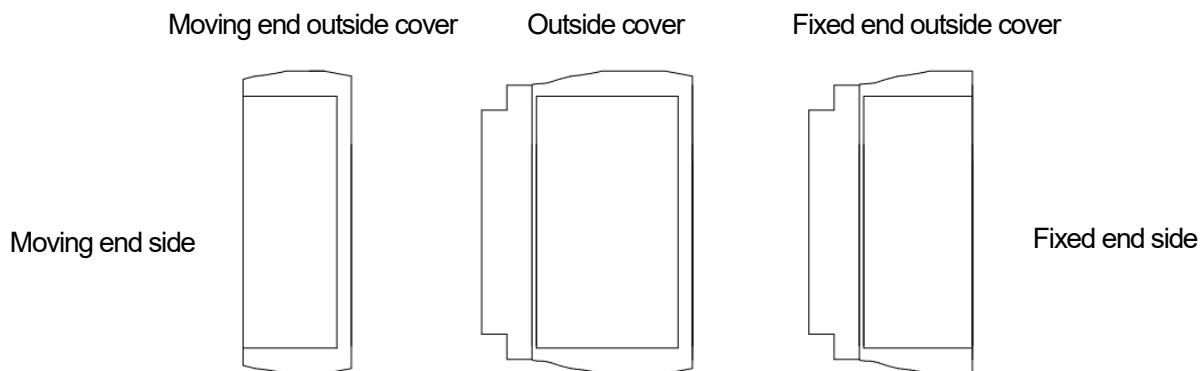
5-2 Insert the cables/hoses.

- 1) Insert the cables/hoses after installing the vertical dividers.

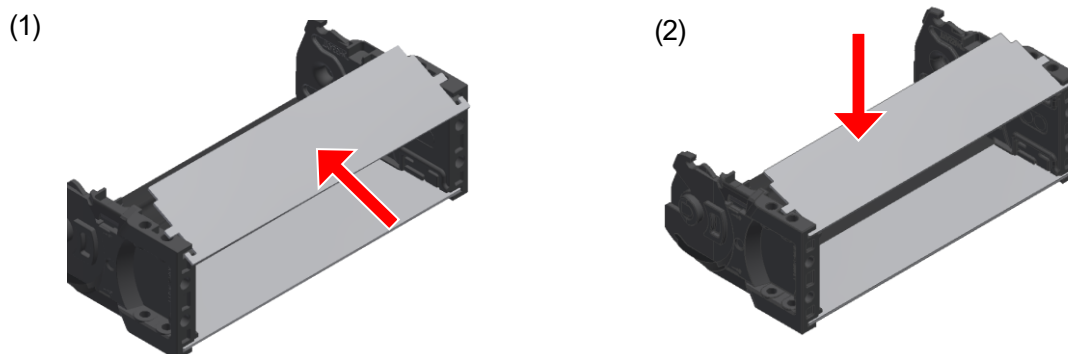


5-3 Install the outside cover.

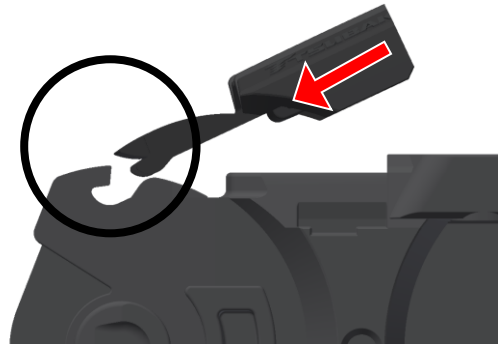
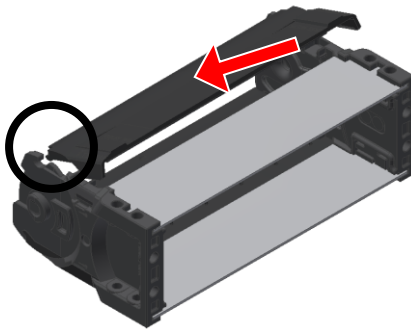
Caution: The shapes of the moving end outside cover, outside cover, and fixed end outside cover are all different.



- 1) Install the bracket covers (material: aluminum) to the moving end and fixed end brackets. After inserting the bracket cover as shown in (1), fit the cover from above as shown in (2).

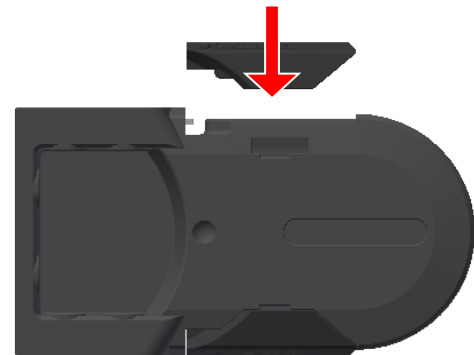
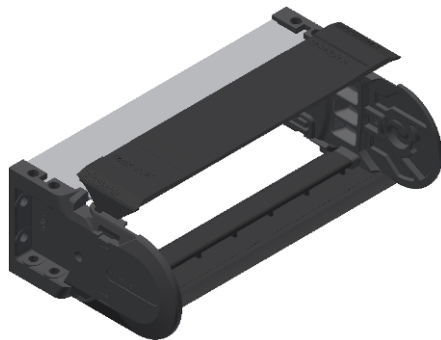


- 2) Install the fixed end outside cover.
Insert the fixed end outside cover in the direction of the red arrow into the indentation on the link circled in the following images, and then tap with a plastic hammer to complete installation.



- 3) Install the outside cover onto the links from the fixed end side as in 2) above.

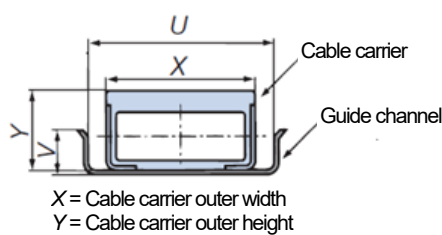
- 4) Install the moving end outside cover.



6 Installation Precautions

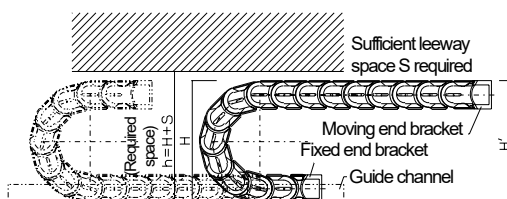
- 6-1 A guide channel is required for use with cable carriers. Construct a guide channel using steel plates or steel angles.

To ensure smooth operation, chamfer and grade the sections where the cable carrier moves in and out of.



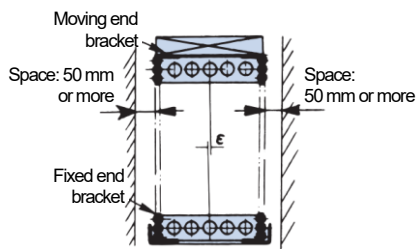
Model	U (mm)	V (mm)
TKA Series	X + 20	Y/2 or more

- 6-2 For the cable carrier mounting height (H') and the required space (h: the installation space height for the cable carrier), refer to the following table.



Model	H' (mm)	h (mm)
TKA Series	H + 10	H + 100 or more

6-3 Keep the difference (ϵ) in mounting positions between the moving and fixed end brackets less than or equal to the values shown in the table below.



Model	ϵ mm or less
TKA Series	6

7 Maintenance Check

7-1 Cable carriers do not require lubrication.

7-2 Do not stand or put heavy objects on the cable carrier. Doing so may damage the cable carrier.

7-3 Take care to prevent foreign matter from falling onto or accumulating on the guide channel surface.

7-4 Check to make sure the cable carrier operates back and forth smoothly. Also check whether the cable/hose/etc. is being forcibly pulled.

7-5 Check the cable carrier for cracks or abnormal wear on the outside surface.

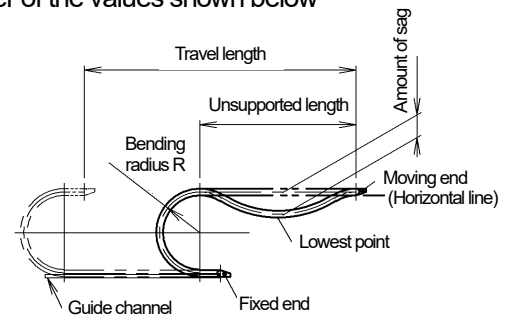
7-6 The following status of the cable carrier means that it has reached its usage limit.

1) When the amount of sag in the unsupported length is the smaller of the values shown below

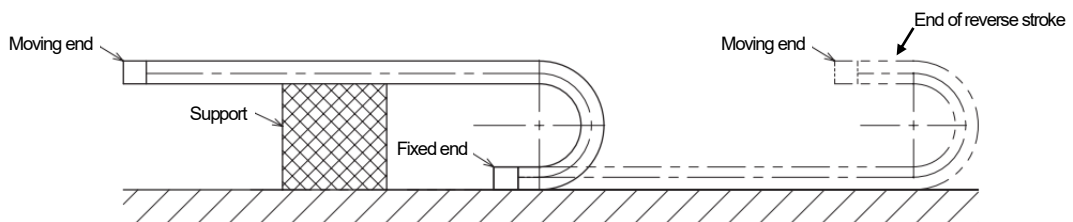
(1) 10% of the unsupported length (F); ($F \times 0.1$)

(2) Cable carrier bending radius (R) amount

2) When the cable carrier becomes broken, cracked, or otherwise damaged due to deterioration caused by age



7-7 If the machine will be stored following installation, fix the moving end of the cable carrier so that it is at the end of its reverse stroke to prevent sag in the unsupported length portion due to creeping. Moreover, use supports or some other means to hold the center unsupported length portion if not possible given the system structure.

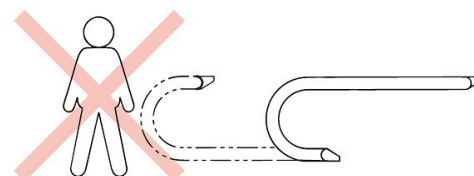
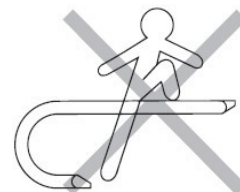


For Safe Use



WARNING Observe the following points in order to prevent hazardous situations.

- Do not use the cable carrier and its accessories (including Cleanveyor and Flatveyor) for anything other than their original purpose.
- Do not stand or ride on the cable carrier. There is a risk of damage and falls.
- Never perform additional work on the cable carrier or the accessories (except fitting connectors on Cleanveyor or Flatveyor).
 - Do not clean the cable carrier or the accessories with acids or alkalis, as they may cause cracking.
 - Never electroplate the cable carrier or the accessories, as this may cause cracking due to hydrogen embrittlement.
 - Do not weld the cable carrier or the accessories, as the heat may cause cracking or a reduction in strength.
- Observe all appropriate labor safety codes and standards for your region or area.
- When there is a need to replace a damaged (fractured) portion of a cable carrier or an accessory, always replace the whole cable carrier or the accessory with a new product rather than replacing only the damaged or fractured portion.
- Immediately stop using the cable carrier or the accessories if they come into contact with a substance that can cause embrittlement cracking (acid, strong alkali, battery fluid, etc.) and replace with a new cable carrier or accessory.
- Observe the following when connecting, installing, removing, servicing, and inspecting the cable carrier or the accessories.
 - Perform the procedure as specified in the instruction manual, catalog, or documentation specially provided to the customer.
 - Secure the cable carrier and the accessories so they do not move freely. The cable carrier may move on its own or collapse under its own weight.
 - Be careful not to pinch, crush, or entangle hands in the bending section of the cable carrier.
 - Wear suitable clothing and protective equipment for the work (such as safety goggles, gloves and safety shoes).
 - Always turn off the source power supply beforehand, and take care not to accidentally operate switches.
 - Only experienced personnel should handle the cable carrier.



CAUTION Observe the following points to prevent accidents

- Carefully understand the construction and specifications of the cable carrier or the accessories before handling.
- Inspect the cable carrier or the accessories for damage during transport before installation.
- The cable carrier or the accessories should be periodically serviced and inspected.
- Cable carrier capacity varies according to manufacturer. When selecting a chain based on a Tsubaki catalog always use the corresponding Tsubaki product.
- Always ensure that the final customer receives the instruction manual.
 - If you do not have the instruction manual, contact a Tsubaki representative with the product name, series name, and chain/model number to receive the appropriate manual.
- The product information given in this catalog is mainly for selection purposes. Thoroughly read the instruction manual before actually using the product, and use it properly.