

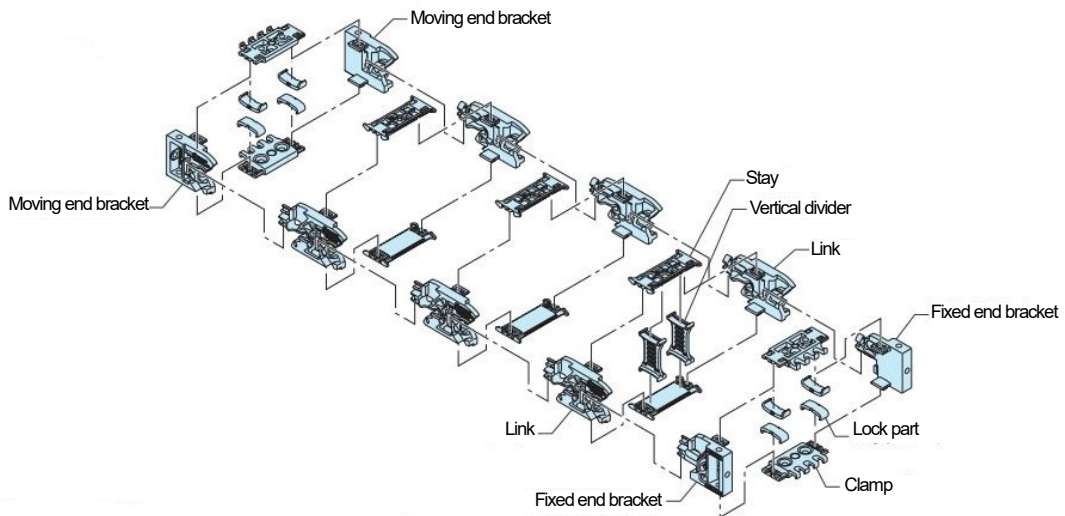
TSUBAKI CABLEVEYOR (Cable Carriers)

Instruction Manual

TKR37H28

Caution: Wear suitable protective equipment for the work (such as safety goggles, gloves, and safety shoes).

1 Structure/Part Name



2 Dividers Installation

Install the dividers when inserting cables/hoses.

Follow the steps below with the outside stays open (only the inside stays attached) and install the vertical dividers on the inner face of the inside stays.

1) Hook the engagement on one side of the vertical divider into the stay.

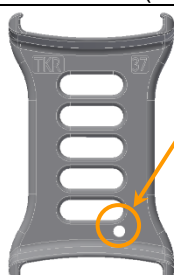


2) Push the engagement on the other side of the vertical divider into the stay by rotating the vertical divider around the already hooked engagement.

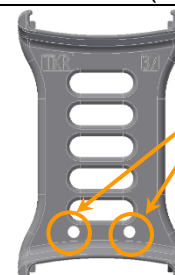


There are two types of vertical dividers shown below.

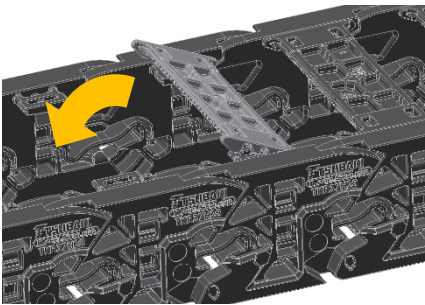

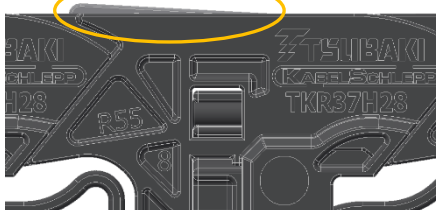
STAS (Sliding type for DSA)

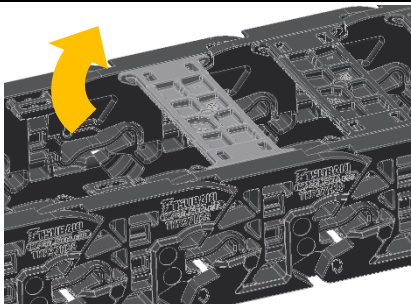
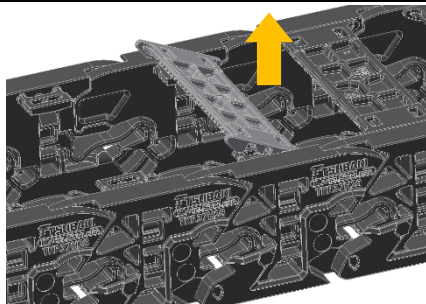


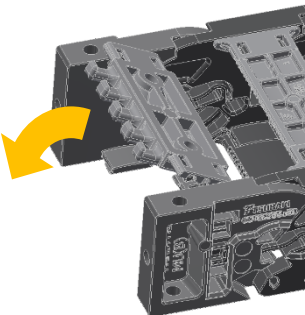
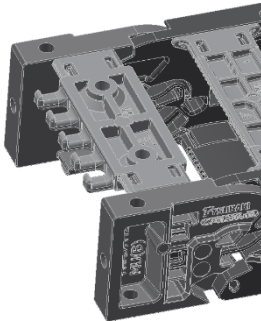
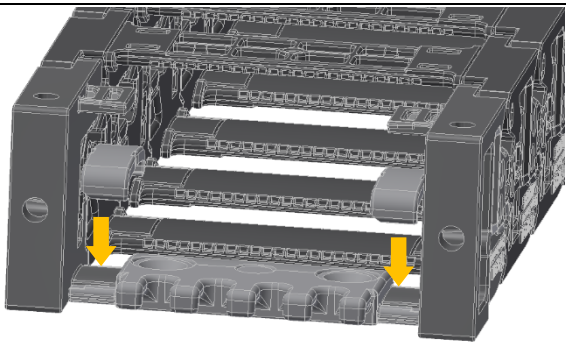
STAL (Locking type for DSA)



Note) Install the dividers to every second link. Check the number of dividers to be installed per link.

3	Closing Stays		
1) Hook the engagement on one side of the stay into the stay attaching portion on the link. To attach the stay, push the engagement on the other side of the stay into the link by rotating it around the already hooked engagement.			2) Check the stay from the side of the link to ensure that it is attached firmly.
		<p>Good:</p>  <p>Not good:</p> 	

4	Opening Stays
1) Rotate the stay around the engagement on one side of the stay to detach it.	
	

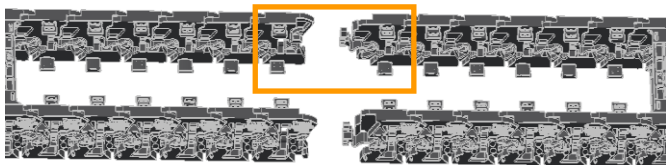
5	Closing Clamps	
1) Attach a clamp to the bracket in the same way as for the stay.		2) Attach the lock parts to both ends of clamp.
		

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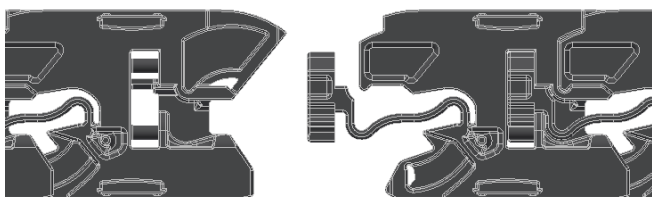
Connection

Long cable carriers (50 links or more) are normally delivered in sections. Follow the procedure below to connect the chains. Brackets can be attached in the same way. Refer to the previous section for how to detach stays.

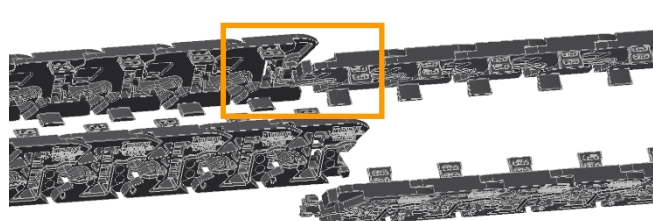
- 1) Remove the stays and lock stays from six or more links counting from the links to be connected on each end of chains and align their links with each other.



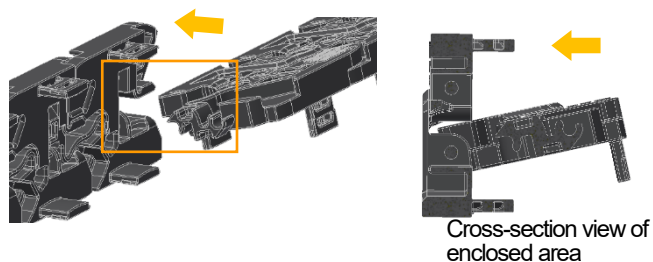
↓ Enlarged view of enclosed area



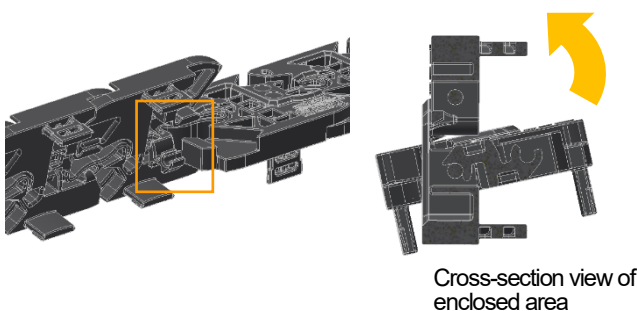
- 2) Connect the inside engagement of one link to that of the link to be connected with.



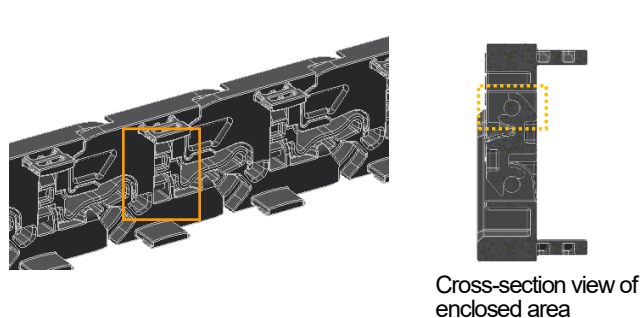
↓ Enlarged view of enclosed area



- 3) Rotate the link around the inside engagement to connect the outside engagement.



- 4) Confirm that the outside engagement is securely connected.



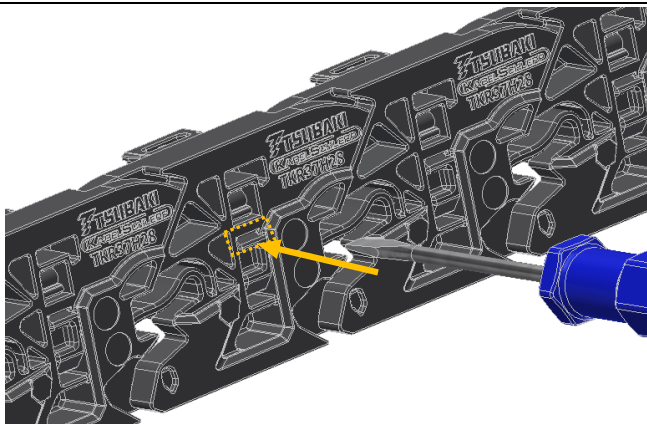
- 5) Connect the links on the opposite side in the same way and attach the stays.

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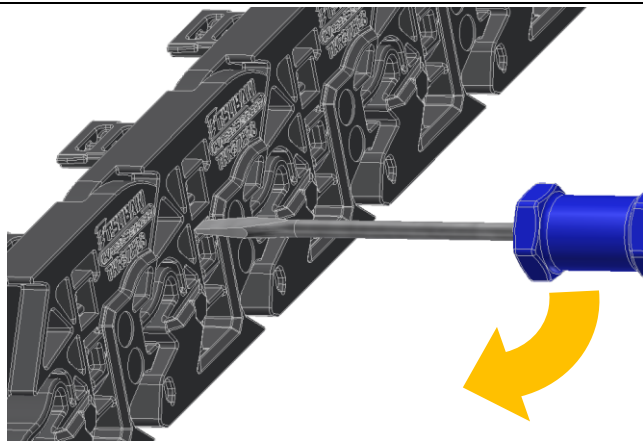
Disassembly

Follow the procedure below to split a cable carrier to fit the required length. Brackets can be detached in the same way.

- 1) Remove the stays from six or more links on each side of the desired splitting point, and insert a flathead screwdriver into the hole on the link.



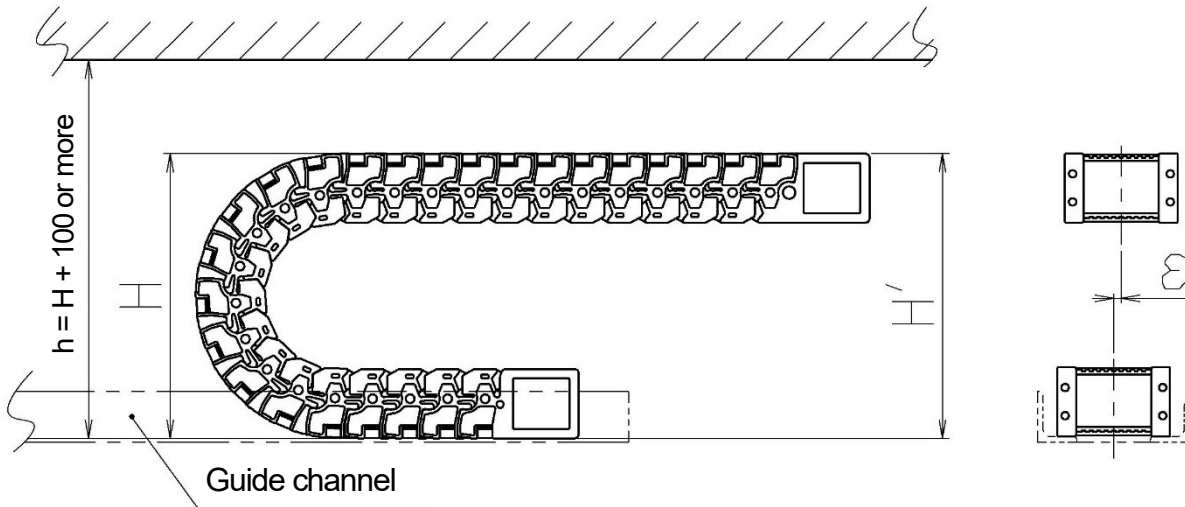
- 2) Twist the screwdriver in the direction of the arrow to detach the link.



Note) Use a flathead screwdriver with a tip width of 3 mm or less.

8 Handling Precautions

Depending on the operating conditions, pretension or sagging occurs in the unsupported length portion of the cable carrier. However, if the product is selected according to the load diagram provided by Tsubaki, it will not cause problems during operation.



1. Moving end mounting height (H') onto machines/equipment should be cable carrier height $H + (30 \text{ to } 50) \text{ mm}$.
2. The installation space height (h) for the cable carrier should be $H + 100$ or more.
3. Install a guide channel.
4. The difference (ϵ) in connection surface between the moving and fixed end brackets should be 6 mm or less.
5. Use highly flexible, wear-resistant cables/hoses that are intended for movable parts.
6. Avoid using wire-braided cables/hoses as they may wear easily.
7. As cables/hoses wear easily when used stacked onto one another, lay them out in a row horizontally or use horizontal dividers.
8. Set cables/hoses with sufficient length, adjust them to the proper lengths, and clamp them at both ends.
9. Remove any foreign matter from the guide channel as it can cause malfunctions.
10. Dividers are delivered uninstalled. Install them when installing the cable carrier.

* Any unevenness on the plastic bracket connection surface may damage the bracket. Ensure that the connection surface is as smooth and flat as possible. Over-tightening fixing bolts can also damage the plastic bracket. Use the following recommended tightening torque.

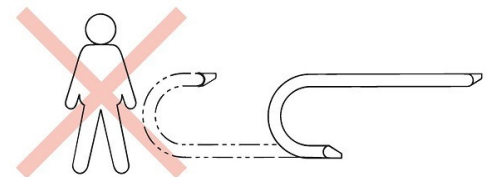
Bolt size	Recommended tightening torque
M4	0.6 N·m

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.

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