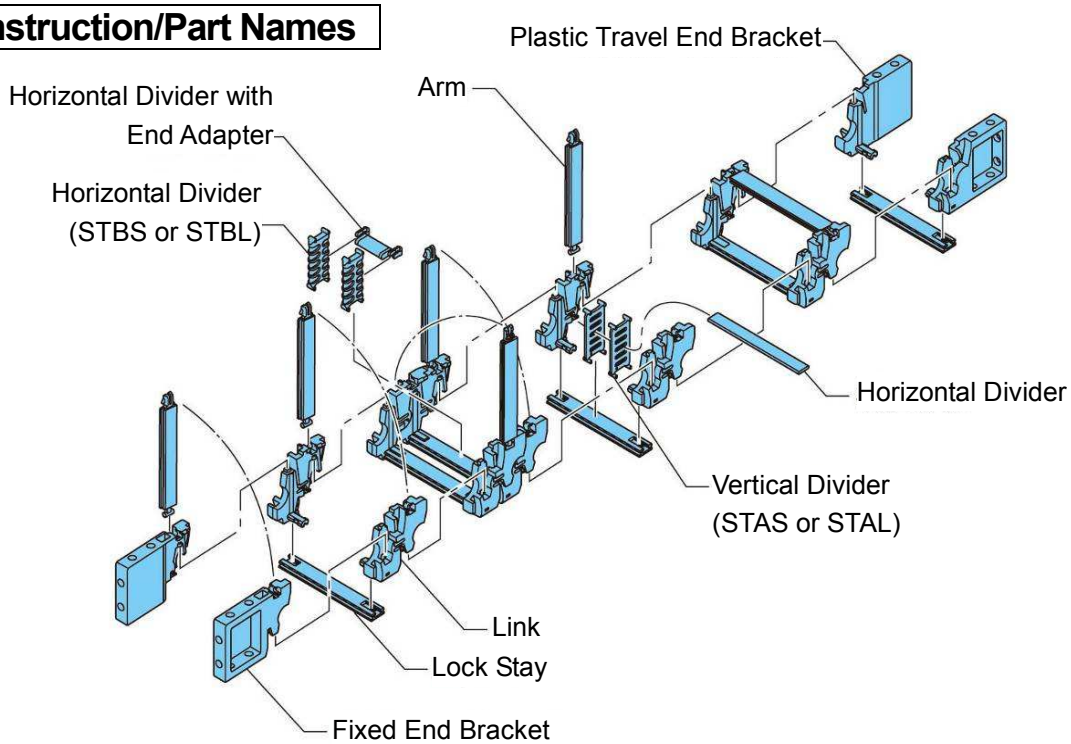
Innovation in Motion TSUBAKI

Instruction Manual

Tsubaki Cableveyor®

TKR26H40・TKR28H52

1 Construction/Part Names



2 Installing Dividers

Dividers are installed when inserting cables and hoses.
Follow the steps below with the arms opened (only the lock stays attached) and install the vertical dividers onto the inner circumference of the lock stays.

1) Hook the catching part on one side of the divider to the lock stay.	2) With the catching part hooked, push the catching part on the other side of the divider onto the lock stay to install.
	

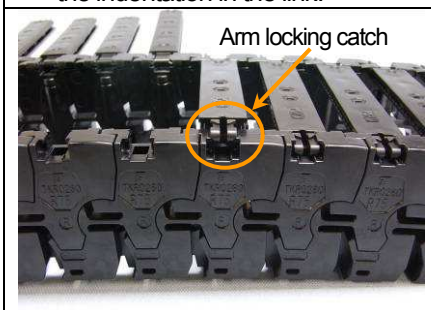
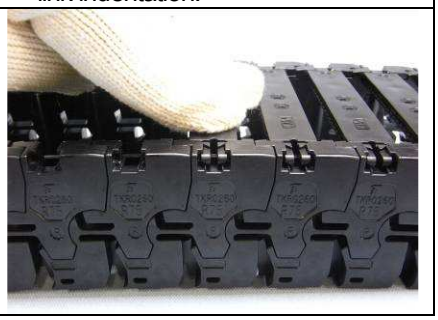
There are four types of vertical dividers.

STAS Movable divider for DSA	STAL Fixed divider for DSA	STBS Movable divider for DSB	STBL Fixed divider for DSB
			

Note: Dividers are installed every 2 links. Check the amount that is installed in any one location.
Installing vertical dividers continuously onto neighboring lock stays will cause interference when the Cableveyor bends. Ensure there is 2 or more links of space (in the direction of pitch) between dividers.

3 Attaching Arms

The Tsubaki plastic TKR26H40 and TKR28H52 Cableveyors have been designed for cable/hose workability – just partially open the arms to insert the cables/hoses. Attach the arms again as follows.

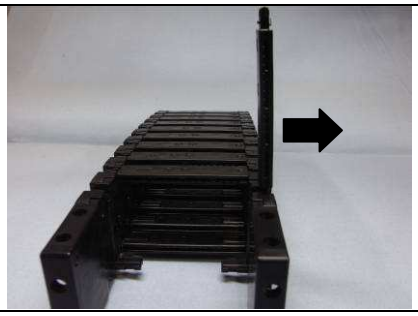
1) Align the arm locking catch with the indentation in the link.	2) Press the arm locking catch into the link indentation.
	

Note: Press the arm locking catch into the indentation by hand. Other methods may damage the catch.

4 Removing Arms

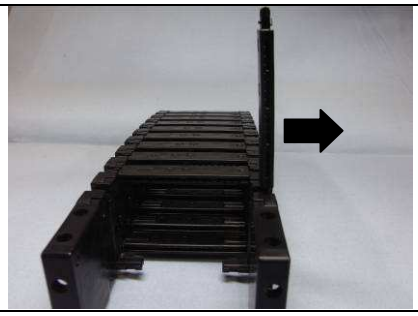
There are two ways to remove arms as follows.

Method 1

1) Pull up on the arm while inserting a flat head screwdriver into the space between one side of the link and the arm locking catch. Twist the screwdriver to lift the catch.	2) Repeat 1) on the opposite side to lift up the arm.	3) Open the arm 90º (so that the arm is straight up) and pull the arm laterally to remove.
		

Note: Use a screwdriver with a 4mm or smaller tip.

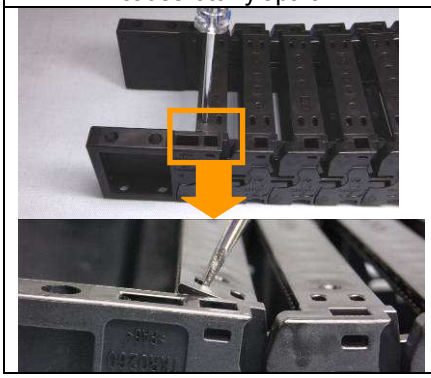
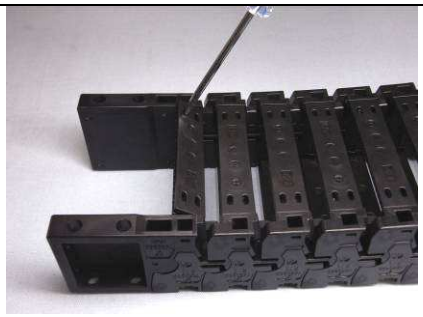
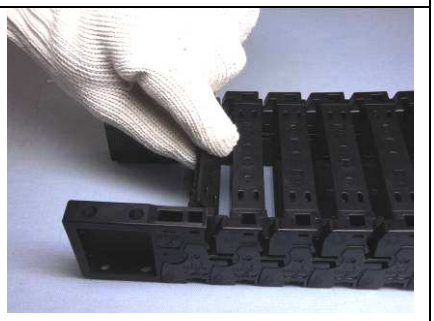
Method 2

1) Insert a flat head screwdriver into the space between the arm locking catch and the link (see below) and twist to lift the catch on one side.	2) Repeat 1) on the opposite side to lift up the arm.	3) Open the arm 90º (so that the arm is straight up) and pull the arm laterally to remove.
		

Note: Use a screwdriver with a 4mm or smaller tip.

5 Removing Lock Stays

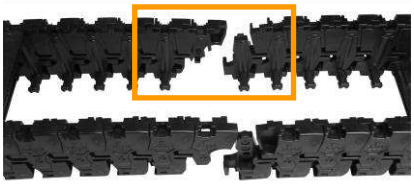
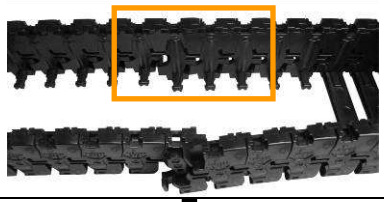
Remove lock stays as follows

1) Insert a flat head screwdriver into the indentation on the lock stay and twist lightly to slightly lift up the lock stay. Caution: Using excessive force may break the lock stay and cause it to fly apart.	2) Repeat 1) on the other side of the link (along the length of the lock stay) to lift the lock stay up fully.	3) Remove the lock stay by hand.
		

Note: Use a screwdriver with a 4mm or smaller tip.

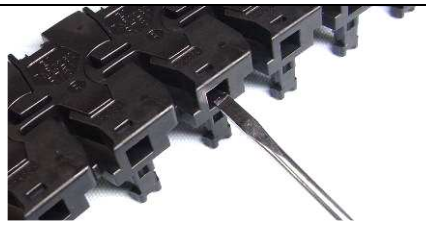
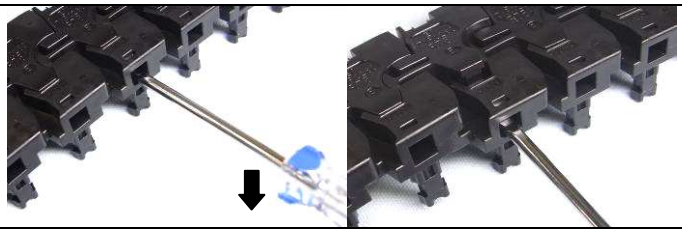
6 Connecting Cableveyors and Brackets

Long length formations (over 100 links) are generally shipped disassembled. Connect the Cableveyor as follows.
Refer to the previous sections for removing arms and lock stays. Brackets are attached in the same way.

1) Remove 5 or more arms and lock stays on each end and align the links.	2) Insert the protrusion on top of the link into the indentation on the adjacent link.	3) Attach the bottom side of the link.
		
Magnified view	Magnified view	Magnified view
		
4) Repeat the process on the other side. Reattach the arms and lock stays.		

7 Disassembling Cableveyor and Removing Brackets

Disassemble the Cableveyor to the required length as follows. The following applies to removing brackets as well.

1) Remove the arms and lock stays from 5 or more links on both ends of the area you wish to disassemble, and insert a flat head screwdriver into the hole on the bottom (inner circumference) of the link.	2) Twist the screwdriver in the direction of the arrow to remove the link.
	

Note: Use a screwdriver with a 4mm or smaller tip.

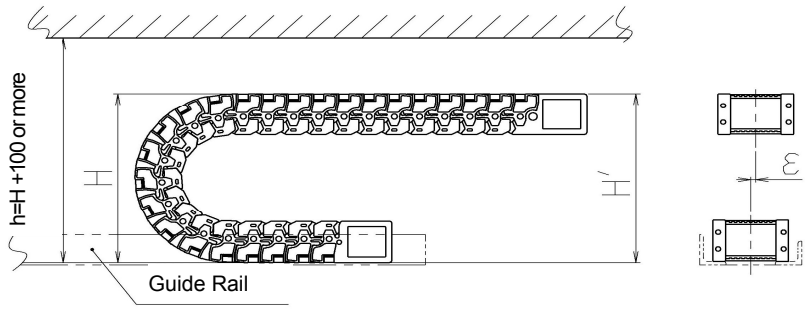
8 Attaching Lock Stays

Attach lock stays as follows.

1) Align the link protrusions and the indentations of the lock stay horizontally at a 45º angle.	2) Hold the lock stay by its center and rotate.	3) Press down on the lock stay on both sides about 30mm from the end to attach the lock stay.
		

9 Caution

Depending on the application, pretension and sag may appear in the free span. However, if selected within Tsubaki's performance graph then there will be no problems with use.



1. Machine travel end installation height (H') should be Cableveyor height H + (30-50).
2. Cableveyor space height (h) is H + 100.
3. Install a guide rail.
4. The difference (ε) in the travel end and fixed end bracket attachment sides should be less than 4mm.
5. Use travel cables/hoses with excellent bending and wear properties.
6. Avoid using cables/hoses with wire braiding, as they are easily damaged.
7. Cables/hoses wear easily when used stacked onto of one another. Lay horizontally or use horizontal dividers.
8. Set cables and hoses in the Cableveyor so that they have some play, and clamp both ends.
9. Remove foreign objects from guide rails, as they may cause damage.
10. The following are shipped unassembled and will require assembly when installing the Cableveyor.
    - Dividers

✓ Any unevenness on the plastic bracket installation surface may damage the bracket. Ensure that the installation surface is as smooth as possible. Over-tightening the installation bolts can also damage the plastic bracket. Please use the following recommended tightening torque.

Bolt Size	Recommended Tightening Torque
M6	2.6 N/m

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