

## Do you have any machine problems?

**Issue 1** Want to reduce uneven tire wear

**Solution1** Link torque across multiple axes by using the driver communication function.

**Benefit 1** Reduces uneven tire wear

**Issue 2** Want to quickly stop the low-frequency vibration of the machine

**Solution2** Suppress vibration by using the advanced vibration suppression control II.

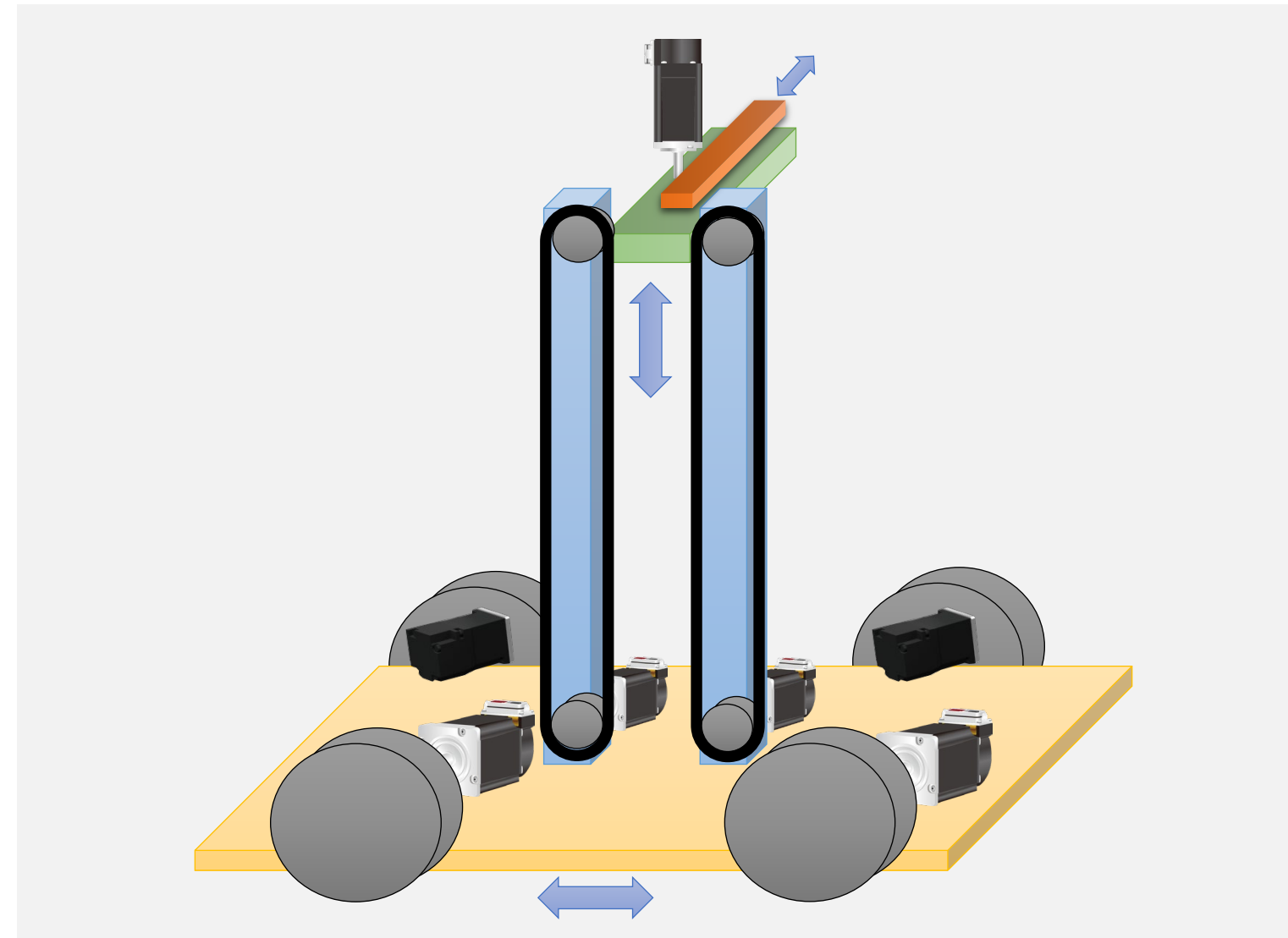
**Benefit 2** Shortens settling time

**Issue 3** Want to replace the belt before it breaks

**Solution3** Detect aging deterioration of belts by using the machine diagnosis function.

**Benefit 3** Reduces machine downtime by replacing the belt before it breaks

## Conceptual diagram



## Do you have any machine problems?

**Issue 1** Want to reduce uneven tire wear

**Solution1** Link torque across multiple axes by using the driver communication function.

**Benefit 1** Reduces uneven tire wear

**Issue 2** Want to quickly stop the low-frequency vibration of the machine

**Solution2** Suppress vibration by using the advanced vibration suppression control II.

**Benefit 2** Shortens settling time

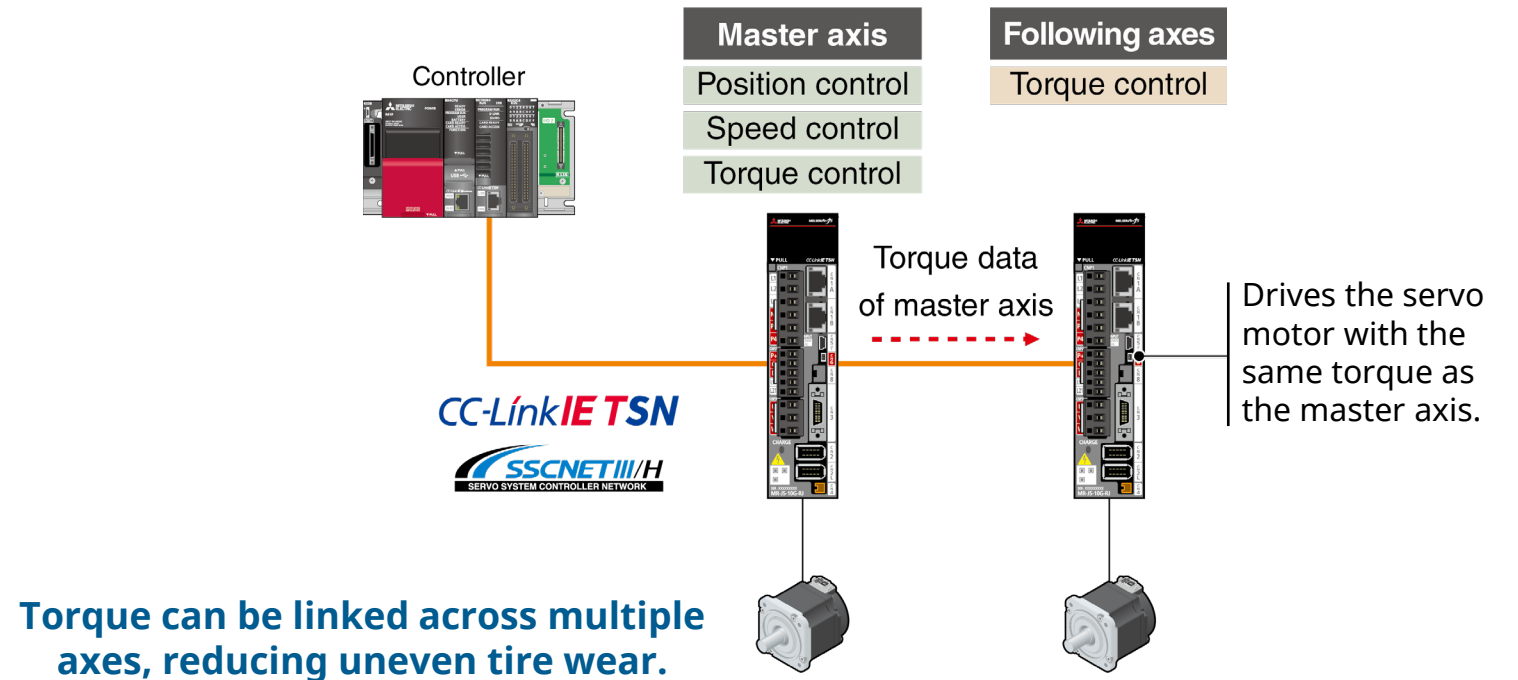
**Issue 3** Want to replace the belt before it breaks

**Solution3** Detect aging deterioration of belts by using the machine diagnosis function.

**Benefit 3** Reduces machine downtime by replacing the belt before it breaks

## Conceptual diagram

- Torque is linked by transmitting the torque data of the master axis to the following axes.



Torque can be linked across multiple axes, reducing uneven tire wear.

## Do you have any machine problems?

**Issue 1** Want to reduce uneven tire wear

**Solution1** Link torque across multiple axes by using the driver communication function.

**Benefit 1** Reduces uneven tire wear

**Issue 2** Want to quickly stop the low-frequency vibration of the machine

**Solution2** Suppress vibration by using the advanced vibration suppression control II.

**Benefit 2** Shortens settling time

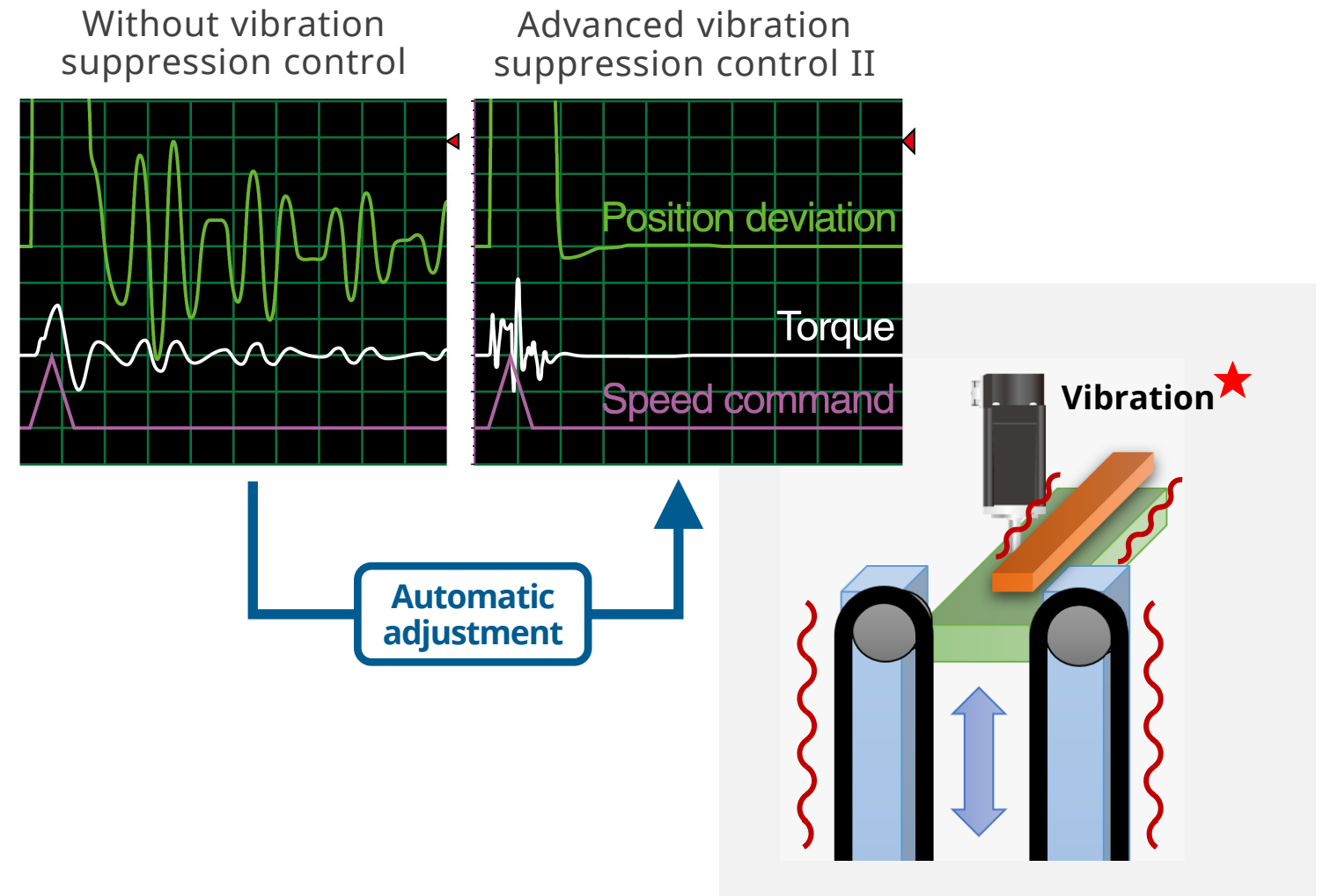
**Issue 3** Want to replace the belt before it breaks

**Solution3** Detect aging deterioration of belts by using the machine diagnosis function.

**Benefit 3** Reduces machine downtime by replacing the belt before it breaks

## Conceptual diagram

- Two types of low frequency vibrations ( $\leq 100$  Hz) are suppressed by using a three-inertia system algorithm.



## Do you have any machine problems?

**Issue 1** Want to reduce uneven tire wear

**Solution1** Link torque across multiple axes by using the driver communication function.

**Benefit 1** Reduces uneven tire wear

**Issue 2** Want to quickly stop the low-frequency vibration of the machine

**Solution2** Suppress vibration by using the advanced vibration suppression control II.

**Benefit 2** Shortens settling time

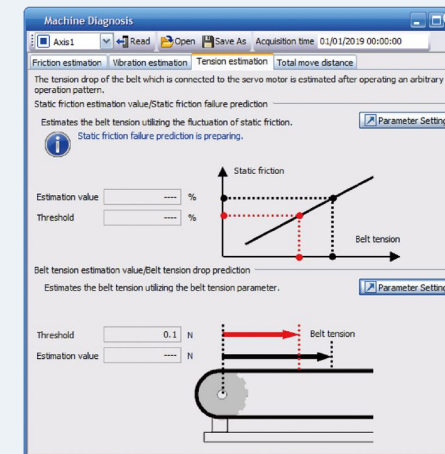
**Issue 3** Want to replace the belt before it breaks

**Solution3** Detect aging deterioration of belts by using the machine diagnosis function.

**Benefit 3** Reduces machine downtime by replacing the belt before it breaks

## Conceptual diagram

- The servo system estimates the belt tension and notifies the maintenance timing.



Estimated static friction and belt tension are displayed.

