



# Precautions for Using Our Products Safely




In order to take advantage of the features of our products and use them safely, carefully read and observe the precautions listed here. Failure to do so may result in injury or physical damage.

 Warning	Conditions that could result in death or serious injury.
 Caution	Hazardous conditions in which only minor or moderate injuries may occur and hazardous conditions in which only property damage is expected.




**Note:** See the terminology glosses on our website for words marked with a ※.

TOYOCONNECTOR TC3-PB brass + resin (Toyox hose dedicated coupling: Check the compatible hoses.) \* For indoor use only

## ① Precautions regarding construction

-  **Warning** Perform installation work at a temperature of 10°C or higher. If installation work is performed at below 10°C, hardening of the resin may temporarily increase the load, causing damage. After installing, there is no problem within the hose operating temperature range.
- The inner surface of the cap nut (TC3-PB25) is coated with a lubricant (extreme pressure grease) that is NSF H1-registered (permissible in locations where accidental contact with food is possible).
- When adjusting the hose length, cut the hose so that the edge face of the hose will become perpendicular.
- Make sure that the hose has enough length to ensure that no bending stress is applied to the hose near the coupling.
-  **Warning** Do not apply oil or other substance to the hose nozzle surface when inserting the hose. Doing so may cause hose disconnection.
- Make sure the hose is inserted to the base of the hose nozzle.
- Do not damage the hose nozzle with a cutter blade or similar item.
-  **Warning** Tighten the cap nut until there is no gap.  
If the product is used when there is a gap, trouble caused by fluid leakage and hose disconnection may occur.  
Take care to avoid injury caused by slipping of the adjustable wrench while tightening.
- Be careful not to tighten the resin cap nut and nipple more than necessary. Excessive tightening may cause damage.  
Tightening is complete when tightening the cap nut results in a knocking feeling.
- Use an adjustable wrench for tightening. Do not use a pipe wrench. Doing so will damage the cap nut.
- When installing and removing, take care to avoid injury from the sharp edges of the coupling.
- After installation, make sure that there is no fluid leakage from the coupling.  
If any damage, deformation, or other abnormality is found, do not use.

## ② Precautions regarding use

- TOYOCONNECTOR couplings are designed specifically for Toyox hoses. Connecting the coupling to a hose made by another manufacturer or an incompatible hose may result in poor performance or an inability to maintain performance. Any such problems will not be covered by any warranty.
- Do not use outside the specified operating temperature range or operating pressure range of the compatible hose.
- Even when using a hose that enables negative pressure use, use of the hose under negative pressure may not be possible depending on the application and conditions (temperature, movement).
- Due to bumps in the threaded part, do not use for sanitary piping (for food products, etc.).  
\* Using with sanitary piping may cause problems with food sanitation.
- Do not fully bend the hose near the coupling. Do not use the hose below the minimum bending radius<sup>※3</sup>.
-  **Warning** Do not assemble or disassemble the coupling while fluid is passing through the hose.  
Doing so may result in fluid leakage or hose disconnection.
- Perform initial and periodic inspections during the period of use to make sure that the hose does not become disconnected from the coupling and the fluid does not leak.
-  **Warning** Do not allow fluid to contact any part other than the inner surface of the hose and coupling.  
Doing so may cause the fluid to penetrate the hose reinforcement layer, remain in the coupling, encourage bacteria (adhesion), and cause hose deterioration. In addition, contamination with dust, hose fragments (reinforcement material), and printed ink on the outer surface may occur.
-  **Warning** Do not use in piping for the following applications. Doing so may result in coupling damage, hose rupture, or hose disconnection.
  - For piping such as electromagnetic valve piping, which would apply impact to the inside of the piping
  - Places where vibration and shock would be applied to the coupling
  - Where constant tensile stress may be applied to the hoses
  - Where the hose may become electrically charged (risk of electric shock)
- Do not use the product outdoors. Sunlight will cause deterioration of the resin strength and shorten the service life. Also avoid using close to sources of heat.
- Do not use with nitric acid, hydrochloric acid, sulfuric acid, or other strong acid.

## ③ Precautions related to reuse of couplings and replacement of hoses

- When reusing a TOYOCONNECTOR, it is necessary to check that there is no damage to any part, and then replace the sleeve with a new sleeve.
- Be sure to use a new hose.
- When replacing a hose, be sure to remove any fluid or dirt that is adhering to the coupling surface.  
Doing so may result in fluid leakage or hose disconnection.

## ④ Warning

- The material used for the TOYOCONNECTOR flow path (inner surface) is brass. Phenomena such as corrosion or fluid leaks may occur depending on the type of fluid. Before use, check the chemical resistance data or contact our Customer Service Office. Please also make similar checks for fluid contact with the outer surface of the coupling.
- Do not use hoses when they are twisted. Partially twisted hoses are also a danger as they may cause internal structural damage leading to ruptures. Follow the examples below to take preventative measures.

