

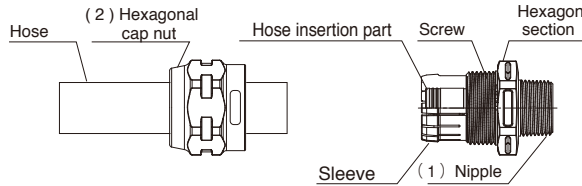
# TC3-PB type TOYOCONNECTOR® Handling Manual

## Be sure to read this manual before using the connector.

**⚠ Warning :** A potentially hazardous situation which could result in death or serious injury.

This is an explanation of the "correct use" of TOYOCONNECTOR. Similar to individually sold hoses, please be aware of the restriction on use and follow the warnings below. Failure to observe these could result in injury or property damage.

### Names of parts ( materials )



**Materials : TC3-PB type**  
 Nipple, Ring in the hexagonal cap nut : Brass  
( Cadmium not contained according to the EU RoHS directive )  
 Hexagonal cap nut : Nylon  
 Screw, Sleeve : Polyacetal

### Before fitting

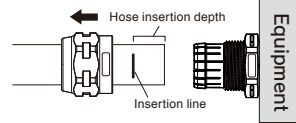
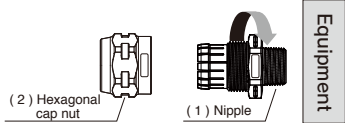
- When cutting a hose, please make sure that the edge face of the hose will become square-on.
- Be sure to have a sufficient hose length so as not to apply a hose bending stress around a coupling.
- ⚠ Warning** When inserting TOYOCONNECTOR TC3-PB into hoses, never put grease on the surface of the hose insertion part. It would be a cause of hose being pulled out.
- Make sure that the hose is inserted completely into the root of the nozzle.
- Do not cut the hose insertion part in place with a knife or the like.
- ⚠ Warning** Tighten the hexagonal cap nut completely. If the nut becomes loose, the hose may become detached and liquid may leak. When tightening the nuts, please be careful not to get injured by slipping the " Adjustable ( Power ) Wrench ".
- Use an " Adjustable ( Power ) Wrench " for tightening the nuts. Do not use a " Pipe Wrench ". It may damage hexagonal cap nuts.
- ⚠ Note** Be careful not to over tighten the resin box nut and nipple. Excessive tightening will cause damage. In addition, securely fasten the hexagonal portion with a " monkey ( motor ) wrench " until there are no gaps. Excessive fastening or the use of a non-fitting wrench on the hexagonal portion may cause damage.
- Take care to avoid injury from the sharp edges of the connector.
- After assembly and prior to use, be sure to confirm that fluids are not leaking from the joint areas sections. Furthermore, refrain from use when damage or deformation can be recognized.

### How to attach a hose

\* The same mounting instruction applies to all hoses.

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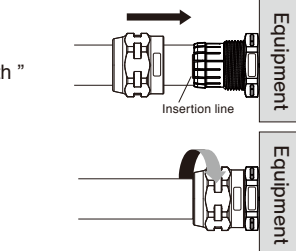
- First, attach a nipple ( 1 ) to the equipment / machine.
- Pass a hexagonal cap nut ( 2 ) through the hose.



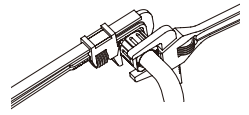
- Insert the hose into the nipple ( 1 ) hose insertion part. By drawing a line on the hose according to the " hose insertion depth " table below beforehand, you can insert the hose appropriately.

Appropriate hose insertion depth

TOYOCONNECTOR Code	mm	TOYOCONNECTOR Code	mm
TC3-PB 9	18	TC3-PB19	21
TC3-PB12	18	TC3-PB25	22
TC3-PB15	19		



- As shown in figure, secure the hexagonal part of the nipple ( 1 ) with another " monkey ( motor ) wrench, " and tighten the hexagonal cap nut ( 2 ) completely. Tightening the nipple ( 1 ) without securing it may cause the nipple to turn at the same time and break the thread for the piping.  
 \* A knocking feel while tightening the box nut indicates that the hexagonal cap nut ( 2 ) has been adequately tightened.



Figure

### Notes for use

- TOYOCONNECTOR is a hose joint used only for the following TOYOX hoses. TOYOX is not liable for any damages caused by using TOYOCONNECTOR with any other hose including those produced by TOYOX as well as those by other manufactures as full performance may not be achieved or maintained.  
 \* Hose compatibility depends on the connector. Confirm through the catalog or the homepage.
- Use TOYOCONNECTOR within the operating temperature and pressure ranges of the applicable hose.
- Hoses usable under negative pressures may not be applicable depending on applications and conditions ( temperature, movement, etc. ).
- Not suitable for sanitary piping, as there is a bump in the screw section.
- Do not fully bend the hose near the joint. Do not bend the hose beyond the minimum bending radius.
- ⚠ Warning** Do not assemble or disassemble the connector while fluid is in the hose because the hose may become loose and the liquid will leak.
- Perform periodic inspections to make sure that the hose does not become detached and the fluid does not leak at the connection during use period of the hose.
- ⚠ Warning** Never use TC3-PB for the below applications. Hoses may rupture or become loose.
  - For piping such as electromagnetic valve piping, which would put impact pressure on the piping.
  - Where vibration or impact will be applied to the connector
  - Where constant tensile stress may be applied to the hoses
  - In a way that may cause static buildup ( There is a danger of electrical shocks. )
- Refrain from outdoor use. The strength of the resin will deteriorate due to sunlight, causing shortening of the life of the product. Also refrain from use near sources of heat.
- Refrain from use in applications with strong acids such as nitric acid, hydrochloric acid, and sulfuric acid.
- Do not allow anything other than the inner surface of the couplings or hose to come in contact with fluids, because the fluids may permeate the hose reinforcement layer or remain inside the couplings, and bacteria may propagate (attach to the parts) or the hose may deteriorate. Also, dust, hose fragments (reinforcement material) and ink adhering to the outer surface may be mixed in.

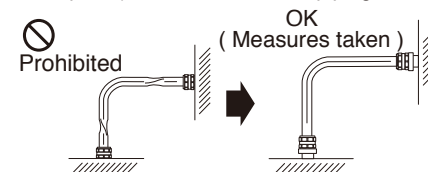
### Notes for Connector Reuse and Hose Replacement

- When reusing TOYOCONNECTOR products, check that each component is not damaged and be sure to replace old sleeves with new sleeves.
- Please make sure to use a brand-new hose.
- Before replacing a hose, always make sure to remove the fluid and dirt on the connector surface. Fluid and dirt remaining on connector may possibly cause fluid leakage and hose loosening.

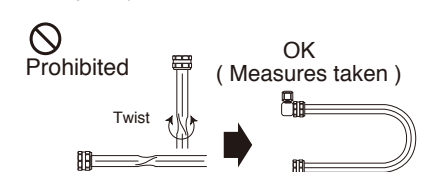
### ⚠ Warning

- Be sure to check the material used for the TOYOCONNECTOR flow pass ( inner surface ). Phenomena such as corrosion or fluid leaks may occur depending on the type of fluid. Before use, be sure to check data ( refer to data on chemical resistance in the catalog or on the homepage ) . Please also make similar checks for fluid contact with the outer surface of joints.
- Do not use hoses when they are twisted. Partially twisted hoses are also a danger as they may cause internal structural damage leading to a " Burst ". Follow the examples below to take preventative measures.

Example 1 ) Twisted hose while piping



Example 2 ) Twist when bent



Complete Hose Solution  
**TOYOX**®

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