



Precautions to ensure safe usage



The precautions given below are intended to ensure safe and correct use of the products.
Note that certain restrictions apply to use of these products. Failure to observe these could result in injury or property damage.

 Warning	A potentially hazardous situation which could result in death or serious injury.
 Caution	A dangerous situation which could result in minor or medium injury and/or in which only property damage is foreseen.




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

TOYOCONNECTOR-F Stainless Steel (TOYOX Hose Dedicated Coupling)

① Notes for installation


1. When cutting a hose, make sure that the edge face of the hose is cut perpendicularly.
2.  **Warning** When inserting hoses, never apply oil, etc., to the surface of the nipples.
It may cause the hose to become disconnected.
3. Make sure that the hose is inserted completely into the root of the nozzle.
4.  **Warning** Fasten the cap nut until there are no gaps.
When used in a state where there are gaps, trouble due to fluid leakage and hose disconnection will occur.
As well, be careful to avoid injury due to wrench slips when fastening nuts.
5. Do not use a blade to cut the hose nozzle or sleeve.
6. After installation, confirm that before use that there is no fluid leakage or hose disconnection from the coupling area.
7. Use a monkey wrench for tightening. Do not use a pipe wrench.
It will damage the cap nut.
8. During installation, take care to avoid injury from the sharp edges of the coupling.

② Notes for safe usage

1. TOYOCONNECTOR-F is a coupling dedicated for the TOYOX Hoses below. TOYOX is not liable for any damages caused by use with any other hose including those produced by TOYOX as well as those by other manufacturers, as full performance may not be achieved or maintained. (Applicable hose code: TSI, TSIS, HTSI)
2. Use within the operating temperature and pressure ranges of the applicable hose. Note that the maximum operating temperature is 140°C for TOYOSILICONE Hose and TOYOSILICONE-S Hose, and 130°C for HYBRID TOYOSILICONE Hose. Use the products within their working pressure range up to 0.5 MPa.
Do not use TOYOSILICONE Hose for negative pressure applications.
3. With certain applications and conditions (temperatures and movements, etc.), negative pressure cannot be used.
Refer to the "Use condition reference values for TOYOX vacuum hoses" (Terms explained, Fig. 1) regarding guidelines for negative pressure use ranges.
4. Do not use a hose that is extremely bent near a coupling. This may break the inside of the hose.
5. Do not use in locations subject to vibration or impact. This may cause coupling damage or hose disconnection.
6.  **Warning** Do not attempt assembly or disassembly of couplings while fluid is running through the hose.
This may cause fluid leakage or hose disconnection.
7. Perform periodic inspections during use to make sure that hose disconnection from the coupling and fluid leakage do not take place.
8. 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) adhering to the outer surface may be mixed in.
9.  **Warning** Do not use this connector for piping other than the applications below. This may cause hose rupture or hose disconnection.
 - For piping such as solenoid valve piping, which would put impact pressure on the piping
 - Where vibration or impact will be applied to the coupling
 - Where the maximum operating temperature range exceeds 140°C
 - Where constant tensile stress may be applied to the hoses
 - In a way that may cause static buildup (electric shock hazard)
10. Before use, be sure to disinfect and sterilize the interior of the hose. (Sterilization is not carried out before shipping)
11. Do not rub the hose surface with a hard brush, etc., when washing it. This may damage the surface, causing germs to accumulate.
12.  **Warning** The metal sections should be disposed of in accordance with the requirements of the local region.
Handle your plastic waste as industrial waste; it is not suitable for incineration disposal, as incineration generates harmful gases.

③ Notes for the reuse of couplings and replacement of hoses

 **Caution** This coupling is not for routine disassembly cleaning.

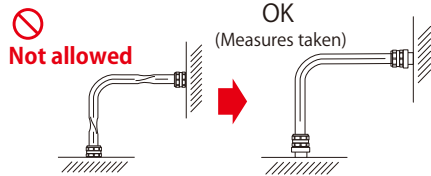
 **Warning** Hose replacement and coupling disassembly must be performed after the coupling is cooled to room temperature.
There is a risk of burns or damage to the couplings.

1. When you disassemble a coupling (cap nut removed), be sure to use a new hose.
As well, while it may vary according to conditions of use, consider five disassemblies a rough guideline for the need for replacement with a new sleeve.
2. Do not damage the nipple surface with a knife or similar tool while replacing the hose or it may cause liquid to leak.
3. Before replacing a hose, always make sure to remove the fluid and dirt on the coupling surface.
This may cause fluid leakage or hose disconnection.
4. Use a soft brush to wipe foreign matter such as dust and debris off cap nuts and PVDF screws.
5. If the sleeve or PVDF screws develop a crack, damage, deformation or discoloration, immediately replace with new parts or full performance may not be achieved.
6. Do not hit the coupling with a hammer or similar tool.

④ Warning

1. The fluid path (interior) of TOYOCONNECTOR uses SUS 316L material.
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 website) or make inquiries to the toll-free number.
As well, make similar checks for fluid contact with the outer surface of couplings.
2. Do not install or use twisted hoses. Twisted hoses are dangerous because they deform their interior structures and cause hose ruptures.
Fix twisted hoses appropriately as shown in the following examples.

Example 1: Hose twisted when it is installed



Example 2: Hose twisted when it is bent

