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 TC3-F, TC3-FG, TC3-F Resin Ring Type 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.
   NSF "H1" lubricant (extreme-pressure grease), registered as "permitted for use in locations where there is a possibility of incidental contact with food," is applied to the screw parts of TC3-FG. Make sure that lubricant does not come into contact with hose or nipple.
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 fastening the resin ring equipped type, check that the resin ring is not tilted and then fix it to the side of the nipple, fastening until there are no gaps. When used in a state where there are gaps, trouble due to fluid leakage or 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 with TC3-F gasket.
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 is a coupling dedicated for the above TOYOX Hoses. 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.
2. Use within the operating temperature and pressure ranges of the applicable hose.
3. Do not use a hose that is extremely bent near a coupling. The bending radius of a hose should be larger than its ※3 minimum bending radius.
4. Do not use in locations subject to vibration or impact. This may cause coupling damage or hose disconnection.
5. ⚠**Warning** Do not attempt assembly or disassembly of couplings while fluid is running through the hose.
   This may cause fluid leakage or hose disconnection.
6. Perform periodic inspections during and before use to make sure that hose disconnection from the coupling and fluid leakage do not take place.
7. 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.
8. ⚠**Warning** Do not use for piping in 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 the maximum operating temperature is exceeded
   - In a way that may cause static buildup (electric shock hazard)
   - Where vibration or impact will be applied to the coupling
   - Where constant tensile stress may be applied to the hoses
9. Before use, be sure to disinfect and sterilize the interior of the hose. (Sterilization is not carried out at shipping)
10. Do not rub the surface with a hard brush, etc., when washing it. The surface could be damaged, causing germs to accumulate.
11. ⚠**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.

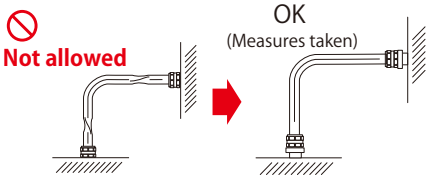
⚠**Warning** Hose replacement and coupling disassembly must be performed after the coupling is cooled to room temperature. There is a risk of burns or damage to the couplings.

1. When reusing TOYOCONNECTOR, replace the sleeve with TC3-F gasket with a new one.
2. When reusing the TC3-FG type, be sure to apply commercially available lubricant (extreme-pressure grease) to the screw parts and the clamp before fastening the cap nut. We recommend the use of NSF "H1" lubricant (extreme-pressure grease), registered as "permitted for use in locations where there is a possibility of incidental contact with food."
3. Please make sure to use a brand-new hose.
4. If fluids contact the resin ring, discoloration, deterioration, or damage may occur depending on the type of fluid.
   If there are any abnormalities, be sure to replace the affected parts.
5. 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.
6. While it may vary according to conditions of use, consider five disassemblies a rough guideline for replacing with a new coupling.
7. Do not hit the coupling with a hammer or similar tool.

④ Warning

1. The fluid path (interior) of TOYOCONNECTOR uses SCS 16 (SUS 316L equivalent) 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