# Flexible Fluorine (ETFE) Resin SUS Spring Wire Hose (Dissipative Type) [Model Number: E-SJSD]

## Precautions for Use

⚠ Before using HAKKO EIGHTRON products, please make sure to read following instructions in order to use HAKKO EIGHTRON products safely. HAKKO is not liable for personal injury or property damages if you do not follow the cautionary instructions below. We strongly urge you to follow these instructions.

- Please do not use E-SJD for applications of medical, or medical treatments.
- The inner layer of E-SJSD is made of ETFE fluorine resin, so it shows greater chemical resistance against most of the chemicals. However, depending on the kinds of chemicals, density, and temperature, ETFE fluorine resin might swell or deteriorate. Thus, please refer to the chemical resistance data on our product catalog and our webpage.
- The inner layer of "Flexible Fluorine (ETFE) Resin Hose Series (Dissipative Type)" contains carbon. Depending on the using conditions (such as the kinds of fluids, working temperature, bending, pressurization stress, and friction) , carbon might come out. When you require the pureness of the fluid, please make sure to check by yourself.
- E-SJSD is a laminated structure tubing. In terms of chemical resistance, the material of the outer layer is inferior to that of the inner layer, so please do not soak hose into the chemicals and contact with chemicals for a long time. Even though the material of the inner layer stands proof against chemical substances, depending on the using conditions, fluids may be leaking to the middle and outer layers, leading to swelling, leakage, changing colors, and bursting.
- Please comply with the use conditions mentioned in our catalog such as working pressure, temperature, and minimum bend radius.
- Please do not bring the hoses close to fire or heat sources.
- In cutting the hose, the cross-section of the hose must be perpendicular.
- When you cut a E-SJSD hose, be careful not to get hurt on your hands, because the spring wire may stick out at the cross-section of the hose. When the spring wire sticks out, cut it off neatly with a nipper.
- For hose fittings, please use HAKKO original fittings [EIGHTLOCK Series] and [EIGHTNIPPLE Series]. For more information on HAKKO original fittings,please take a look at general catalog and corporate website.
  When using the EightLock Series E-ELS, please tighten it so that there is no clearance between the body and the nut.
  If there is a gap between the body and the nut, the nut becomes an insulated conductor and accumulates and discharges static electricity, possibly causing fire.
  Also, please make sure that the body and nut are electrically connected (1 MΩ or less) at the time of installation and periodic inspections.
  In case you use other manufacturers' fittings, it may lead to the fluid leakage, coming off from the fittings, and the bursting of the hose.
  Unavoidably, if you use the joints other than HAKKO original fittings, please use the joints to seal an inner surface of the hose.
  Please do not use the joints to seal an outer surface of the hose.
  Any problems occurred by using other manufacturers' fittings are not guaranteed.
- Please use the fittings which have the barbed R on the nipples. Do not use the fittings which have scratches or rust on the surface of the nipple. Inner surfaces of the hose may be damaged and it may cause the hose to rupture or leak. Please do not use wires or do not tighten excessively with wires. It may cause the hoses to rupture or leak.
- Before the installation, please measure the end-to-end resistance value among the fittings. The value should be within a range of 1 KΩ≦R＜1MΩ.
- E-SJSD does not have a property of eliminating the already charged fluids. Please take another approach in getting rid of the already charged fluids. In case any property and physical damages happen other than the end-to-end hose, we do not assume any responsibility.
- E-SJSD does not necessarily guarantee the prevention of disaster. You need to pay attention to the following factors: flammability, explosion, the limit of the velocity of a flowing fluid of low dissipative material, and the low spray concentration.
- As long as E-SJSD connects with the fittings on both ends, the maximum length of meeting the dissipative standard (1KΩ≦R＜1MΩ) between the hose end to hose end is 20m. Please ground the fittings within the length of 20m. If you connect a hose with more than 2 fittings within the length of 20m or if you connect more than one hose with the fitting over 20m, make sure to take a risk assessment approach such as grounding every fitting with the hose.
- Please make sure to ground a hose. If you do not ground the hose, a hose will be a suspended conductor to accumulate and discharge static electricity, resulting in danger of causing fire.
- When you use hose clamps, please make sure to ground the hose with the hose clamps. If you do not ground the hose, the hose will be a suspended conductor to accumulate and discharge static electricity, resulting in danger of causing fire.
- Please do not bend extremely. Please do not apply unreasonable force such as kinking and pulling to the hoses.
- Since the material of E - SJSD contains carbon, durability against repeated bending process is low. Depending on the conditions of repeated bending, it may cause cracks.
- Hose is greatly affected by use conditions and environments. The conditions of the hose should be inspected regularly. If something unusual things listed next occur, stop using the hoses immediately and replace them with new ones:
  - ☐ Abnormal Appearance…Tear, Scratches, Swelling, Crack, Curve, Deformation, and Exposure of SUS Wire due to Abrasion
  - ☐ The bursting of inner and/or outer layers of the hoses, hardening, dramatic change in color, and leaking fluids
  - ☐ Increasing resistance value from hose end to hose end
- In case hoses are stored, get rid of remaining fluids inside the hoses, clean up any dusts on the surface of the hose and avoid twisting and holding the hoses.
- Please store a hose on the flat, smooth surfaces; otherwise, its shape may change.
- Please do not expose a hose to direct sunshine, wind, or rain. Store the hose in the low humid, well-ventilated, cold, and dark places. If you leave the hose outside, this might lead to change its color and deteriorate.
- Please do not pile up the hoses in large quantity. In this case, the shape of the hose may change or the hose becomes flat.
- In case of disposing, follow the local governmental regulations.

**For Your Inquiries and/or Questions**

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