



## **Instruction Manual: Grounding of PU-Hoses**

## Instructions for the Grounding of Hoses

For the transport of flammable dust particles and bulk solids, hoses must meet special demands to avoid any danger of ignition. Antistatic hose versions are often applied, as these contain a permanent antistatic agent as an additive, which offers both permanent electrical conductivity as well as adherence to international food

industry standards. However, in order to guarantee optimum safety with regards to avoiding electrostatic ignition hazards, the correct grounding of the hoses during assembly and installation is imperative. In this case, the metal helix must be grounded on both sides of the hose. These instructions are designed to help you do this quickly and easily. Please follow the instructions accordingly to ground your hoses correctly and safely.

1. Take the end of the hose and place it on a non-slip surface



2. Cut the wall material to approx. 30mm along the helix spiral



3. Wall material when cut



4. Peel the end of the wire, so that it is free from the wall material. Remove the plastic with a sharp instrument. Please ensure that you cut away from your body, in order to avoid any injuries.

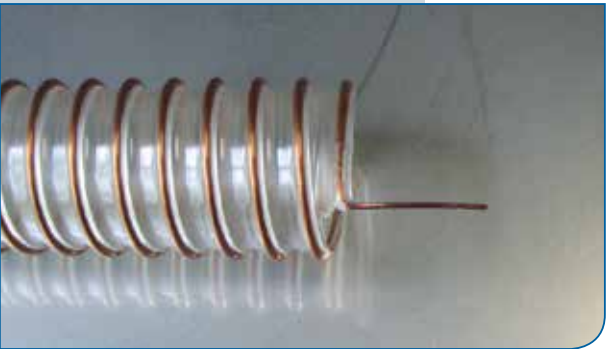




5. Free the complete wire of all remaining plastic



6. Bend the wire 90° outwards



7. The wire should now look like this



8. Now attach the hose connection clamp



9. Push the wire connection clamp and the hose onto the pipe

10. Now pull the clamps tight so that the wire is pressed firmly onto the pipe and the hose is fixed in place. There should be contact between the wire and the pipe



11. Image: Tightened wire connection clamp and hose clamp with screw/worm drive, clamping range 40-60 (Art. No.: 620-040-100) as well as tightened hose connection clamp Master-Grip Clamp DN 50 (Art. No.: 533-050-100).



12. Image: Tightened wire connection clamp and hose clamp with bolts. Clamping range 52-55 (Art. No.: 621-052-115)



As is shown in images 10-12, the wire sits on the pipe and is fixed in place by the separate clamp, metal on metal. This type of connection is recommended. Other methods of grounding are also possible, however we would like to point out the following:

Excerpt from Regulation EN 60335-1:2002-A2:2006

Electrical connections and grounding conductors must be carried out in such a way that the contact pressure is not transferred via insulation material, which may shrink or become deformed. An exception applies if the metal parts possess enough elasticity to compensate any shrinking or deformation of the insulation material.

Metal screws may only be applied for electrical connections if the parts clamp together.

Thread-cutting screws and thread-forming screws may only be applied for electrical connections if they create a fully-formed standard thread.

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