

Standard Heating Hose Installation and Operating Manual

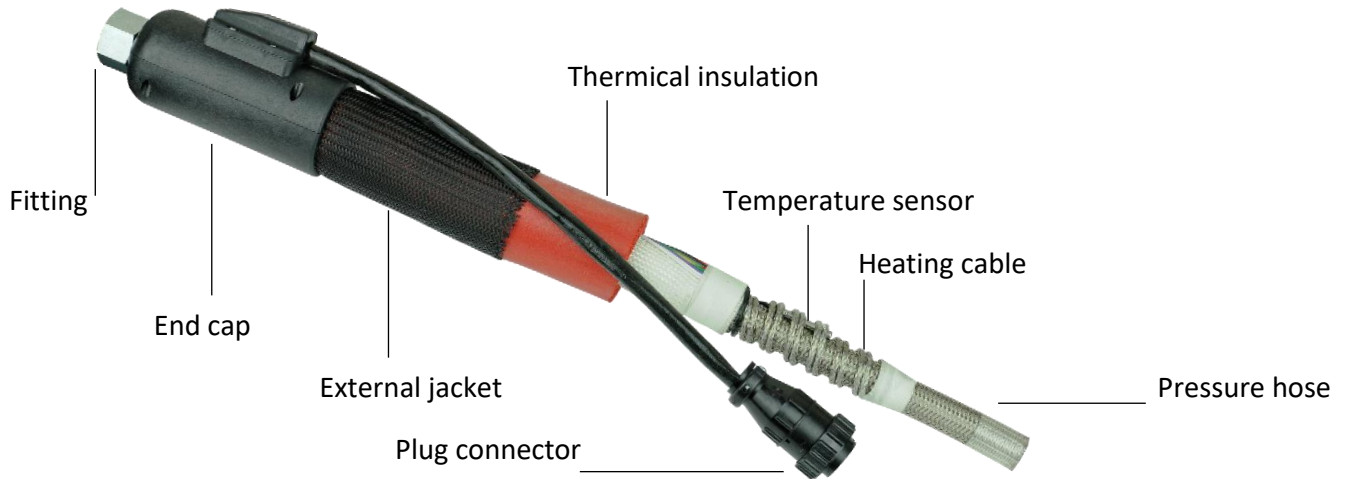
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General Specifications of the Heating Hose



Heating hoses are designed and manufactured for the transfer of certain hot melt substances and gases. It keeps the temperature constant at desired values between melter and application head.

PTFE pressure hose: Teflon hoses are manufactured from high quality PTFE material, offering very low coefficient of friction, high chemical resistance and ideal application in the -70° C to 250° C temperature range. Depending to the application, they can safely transfer the heated products upto 500bar pressure.

Fittings : Fittings that are suitable for high pressure working conditions are mounted at both end of the hose.

Heating cable : The hoses are equipped with a heating cable that is resistant to high temperature and humidity. The power values that will meet the needs of the system are calculated and produced.

Temperature sensor : The hoses are equipped with an integrated thermocouple or a sensor. It transmits the required temperature value to the temperature control device on the system.

Thermal Insulation : Insulation material is applied in order to reduce the heat loss to the minimum and to ensure that the system reaches the specified temperature

External jacket : The outer protective sheath, meets the static and dynamic bending requirements and ensures that the insulation material and the heating elements remain undamaged.

Plug connector : The hoses are equipped with a connection cable long enough for the system requirements. Depending on the customer requests, supplied with or without connectors.

End cap : Both ends of the hoses are covered with hard or soft end caps.

Safety

This installation and operating manual contains important instructions for the safe installation, use, handling and maintenance of OGAN heating hoses.

Before installing and operating the heating hose, carefully read all technical and safety information provided. Make sure you understand the installation guidelines and follow all safety and operating instructions.



In addition, please follow all local occupational health and safety codes before installing and operating this product. Any intervention to the product other than the manufacturer will make the system unsafe and void the warranty. Personnel should have a thorough understanding of the equipment and its safety.

Heated hoses should be installed, operated and maintained only by authorized and qualified personnel. Qualified personnel must have knowledge of the rules of accident prevention at the workplace.

Safety Symbols

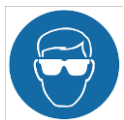
The following safety-related symbols warn of dangers and sources of danger. Get comprehensive information about these symbols.



Caution: Failure to follow these instructions will result in injury, death, and may cause damage to system and accessories.



Caution: Dangerous electrical voltage. Failure to follow these instructions will result in injury, death, and may cause damage to system and accessories. Heated hoses are electrical systems. Except for trained personnel who have sufficient knowledge about the subject, it should not be intervened.



Caution: Burn hazard. Wear heat protection clothing, safety goggles and protective gloves against heat.





Caution: Hot Surface, metal fittings at the end of the heated hose and application heads may be much hotter than the hose surface. Do not touch these areas without gloves while the system is running.



Caution : Toxic liquids or vapors can cause serious injury or death if splashed in the eyes or on the skin or inhaled. Store hazardous liquids in approved containers and use according to applicable guidelines. Always wear chemical impervious gloves when setting up or cleaning the equipment.

The system should be operated away from flammable and explosive materials.



Caution: Substances are transferred under high pressure and temperature within the heating Hoses. It is extremely important that the assembly is done correctly and checked frequently. Incorrect installation and use of damaged hoses cause serious injuries as a result of explosion.



Caution: Heated hoses are manufactured with ground wire and connected to the connector end. Open-ended (without connector) models, the ground cable must be connected to the grounded power supply. Improper grounding, installation or use of hoses may cause electric shock.



Installation

Once all tests and controls of the heated hose are completed, the connection parts are closed with plastic stoppers so that no foreign material can enter the hose, protective nylon is covered outside the hose and shipped in a box.

- 1- While removing the hose from the box, prevent it from braking, do not pull from the cables, lay flat on the floor.
- 2- Use double wrench when connecting the fittings to the melter and applicator to prevent twisting of the hose when tightening. Make sure the connections are not loose. During this process the hose should not be connected to power.
- 3- Once the fittings are connected properly, protective nylon cover should be removed, power cable should be connected to the main unit, then the connector at applicator side should be connected to the applicator. Ensure that the connectors are well locked.
- 4- Once the hose reaches the set temperature values, system should start with low speed and exit of the glue from the applicator should be monitored.
- 5- Controls for a leakage should be checked. After completing all controls normal operating conditions can continue.
- 6- Prevent the external jacket of the hose from contacting to hot surfaces.

****** Transfer hoses have a cable connections only at melter side and could be supplied a connector or open ended. There is no cabling on the other side of the hose. In case there is a use of an applicator with a transfer hose, these applicators should have their own heating systems. Donot expect that the transfer hose can heat up the applicator without a heating system.



Terms of Use

Our product will meet the requirements of your system under normal operating conditions if you comply with the following conditions and installation clauses.

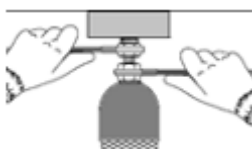
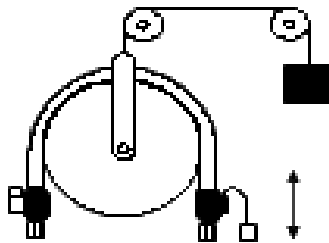
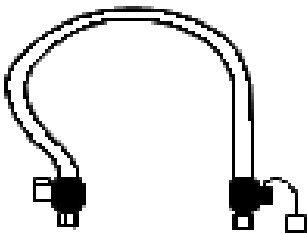
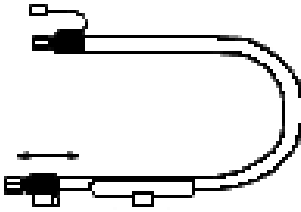
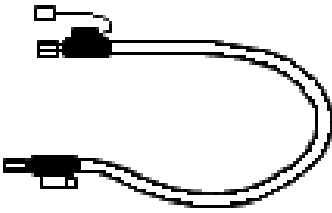
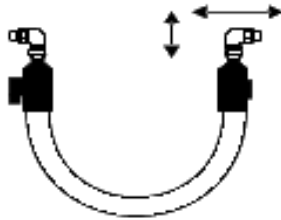
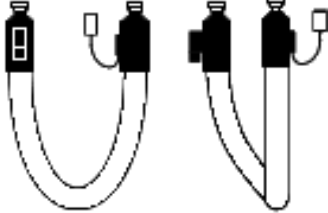
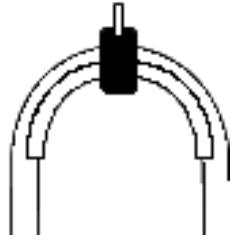
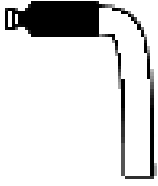
- 1- Follow the working pressure and temperature limits stated on the label of the hose.
- 2- It is essential to comply with the application temperature limits of adhesives. Excessive increase in temperatures causes the glue to burn and carbonization occurs on the PTFE surface of the hose. As a result of this, the flow rate of the glue decreases due to the narrowing in the inner diameter and pressure increase occur.
- 3- The heat control device and the hose thermocouple/sensor must be compatible. Incompatible temperature control allows the hose to heat up until it is damaged.
- 4- A chemical substance to prevent the glue from curing on hose surface should be passed from the hose before the long system stops.
- 5- Protective tape, nylon or similar strips should not be wrapped on the hose. Ventilation of the hose should not be prevented. Otherwise, the temperature will condense and turn into moisture.
- 6- Changing the supply of glue should be monitored. Using adhesives from different manufacturers may cause a blockage in the same hose.
- 7- Working environment should be protected from air circulations.
- 8- Follow the recommendations of your glue supplier when using PUR reactive glues.
- 9- The hose should be checked frequently, the manufacturer should be contacted when necessary.
- 10- Assembly instructions on pages 7 and 8 must be followed.



Assembly Instructions

Incorrect

Correct



Narrow diameter causes the hose and heating cables to break. It should be shaped in the widest possible shape. Avoid sharp bending the hose, use angled and straight connection unions.

Do not hang the hose from one point. Make it take a wide shape with a hard spring or similar apparatus.

Hose should not be twisted during assembly. The hose can be connected with angled connection unions.

In systems where more than one hoses are connected, the hoses should be placed with a space between them so that they do not touch each other. The temperatures of the hoses touching each other in bunches cannot be controlled properly.

Hanging hoses should be corrected with the help of support.

Hoses that move up and down should be hanged with the help of a balancer.

Avoid twisting movement by using a double wrench in the process of removing and installing the hose.



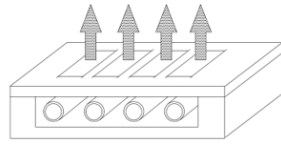
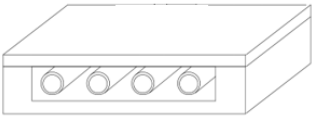
- Make sure that the fittings at the ends of the heated hoses are compatible with the connection part of the unit and the driving/spraying system. Incompatible parts may disturb the connection, causing device damage and serious injury.



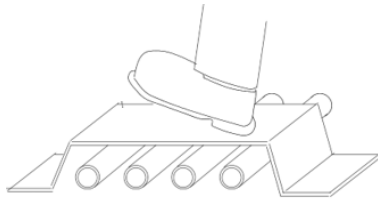
- Failure to tighten the compatible connection fittings will cause glue leakage. Although this leak seems like the inside of the hose at first impression, the reason is from the fitting surfaces that do not overlap with each other and causes the glue to leak from the back of the hex nut. If not removed early, it will leak into the hose and move along the hose between the insulation. This makes it impossible to repair the hose.

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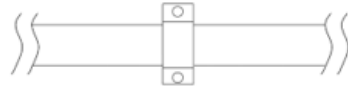
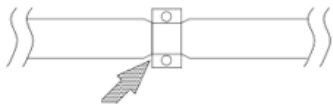
PROPER USAGE



When hoses are collected in a closed area, their heat should be evacuated. Otherwise, temperature differences will occur in the hose.



Do not step on directly on the hoses.



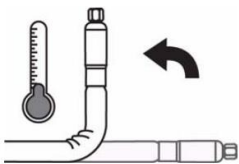
Surface of the hoses should not be squeezed in case the hose needs to be fixed. Tightening the outer surface will damage the heating cables and insulation.



Never use plastic cable ties when the hose needs to be fixed or a cable or an air hose needs to be carried over the hose. Necessary fixings should be made with a soft belt without squeezing the hose.



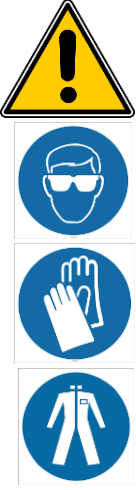
Do not wrap tape or similar material outside of the hose. Otherwise, temperature differences and humidity occur.



Do not bend the hoses with glue in when cold state.

Dismantling of Used Hose

Dismantling the used hose where there is glue in it for maintenance or storage should be made carefully.



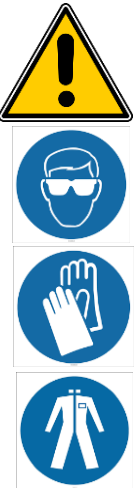
- 1- Heat the hose upto 2/3 of the operational temperature (eg. if operating temp is 150°C heat the hose upto 100°C), then disconnect the electrical connections.
- 2- Fittings should be removed when still hot, they should be removed by using double wrench to prevent hose to be twisted. When necessary heat up the fittings by using a heat gun.
- 3- The hot hose should be turned into a hoop shape carefully as it will be shaped easily.
- 4- Fittings should be wrapped in a way not to get air inside.
- 5- Do not remove the hose in cold state from the system, do not collect or bend it. Otherwise, the structure of the hose will be damaged.
- 6- In case there is damage on the cables or the surface of the hose, energy should be disconnected and the hose should be removed by taking the necessary precautions.

** Working with a damaged hose can result in damage to the system and may cause injuries.

Reassembly of the Used Hose

Reassembly of the hose having cold glue in, after a maintenance period or storage needs additional attention to avoid damage to the hose and to prevent injuries.

- 1- Since there is glue in the old hose, it is tough. To make it flexible, the hose should be heated upto 2/3 of the operational temperature (eg. if operating temp is 150°C heat the hose upto 100°C), by connecting the electrical connections. After the hose is heated up and flexible electrical connections should be disconnected.
- 2- The hose should be made flat and placed between the the melter unit and application area. Make sure that the fittings of the hose are rotating, if necessary, the fittings should be heated up with a heat gun so that they can rotate easily. The connections should not be forced unless they are rotating to be screwed. Otherwise, fittings can be damaged inside the hose as a result of the strain.
- 3- Use double wrench when connecting the fittings to the melter and applicator to prevent twisting of the hose when tightening. Make sure the connection is not loose. During this process the hose should not be connected to power.
- 4- Once the fittings are connected properly, power cable should be connected to the main unit, then the connector at applicator side should be connected to the applicator. Ensure that the connectors are well locked.
- 5- Even the hose reaches the set temperature values, the glue in the hose requires more time to become melted, please wait additional 30-40 minutes before starting the system with low speed and monitor the exit of the glue from the applicator.
- 6- Controls for a leakage should be checked. After completing all controls normal operating conditions can continue.



Warranty Information

OGAN warrants that the heating hoses will be merchantable quality and will comply with the agreed specification.

Each product will be free from defects in performance for its intended use for a maximum period of 1 year (one year for single shift, six months for two shift and four months for three shift operations) from the date of initial sale to final customer.

Heating hose will be repaired or alternative heating hose will be delivered when failure, fault, defect of parts etc. discovered within above provided warranty period, and when OGAN accepts that they attribute obviously to the responsibility of our company on designing and manufacturing.

Warranty is not given in the following cases which are not related with our responsibility arising from design and manufacture of the products.

- A failure and damage resulting from users' mistaken handling.
- A failure and caused by users' remodeling and unjust repair.
- A failure and damage resulting from natural disasters, such as a thunderbolt, an earthquake, flood damage, fire etc. and other specified external factors.
- When distinguishing is impossible because the nameplate was removed or damaged by a user.

EU-DECLARATION OF CONFORMITY



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Product Group : Heated hoses

Product Type : HT700 / RB400 / HT100 / HT200 / NN/ RB /2K / OGN /US / HT250

Directives : EN 2014/35/EU Low Voltage Directive
EN 60519-1/2015 General safety requirementr for industrial installations
EN 60519-2/2006 Safety in electroheat installations
EN 60204-1/2018 Safety of machinery - Electrical equipment

Test report Nr. : LVD-542-01 / LVD-542-02

We hereby declare that in planning and manufacturing of this product the basic safety and health requirements of the EU directives mentioned above have been observed.

July 2th 2020

Serhat Taşgedik

Managing director

