

Mounting big HP-HCC attention should be paid. The HCC must be supported under the blower case during the assembly. It is not enough to fasten the screws alone. The reason is the weight of the HP-HCC. If you don't pull up the HP-HCC while screwing, there is the possibility that the heater band won't fit the cylinder.

Mount the power cable (the installation must be made by qualified personnel) and heat the HCC. If the HCC is installed for the first time the maximum temperature allowed is 100° C for 30 minutes. After reaching this temperature pull the screws tight again. Then it can be brought on the desired temperature, but the maximum is 400°C.

#### 4.2 Disassembling the HP-HCC from the cylinder

Disconnect the HP-HCC from the electrical power.

Wait until the HP-HCC is cooled down.

Loose the screws at the cooling jacket. Open it and then loose the screws at the heater band, spread them and take it off the cylinder.

For transportation use the transport securing device.

# Instruction Manual for Heat-Cool- Combinations with ceramic Insulated band heaters

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## 1. General notes

H.Pepping Heat-Cool Combinations with ceramic insulated band heaters (HP-HCC in the following text) are manufactured in lots of dimensions and different voltages. They were developed in accordance with the directive 2014/35/EU of the European Parliament and of the council.

The HP-HCC's elements are just components, not fully operational equipment. The main use of the heating elements is in the plastic machinery.

The HP-HCC Elements were tested electrically according to the norm DIN EN 60519-1 and DIN EN 60519-2 and mechanically by the manufacturer and are shipped from the factory in a safe technical delivery condition. For proper and safe operation, the installation and storage instructions must be followed.

## 2. Technical Data and storage

Voltage: According to the customers requirement

Power: According to the customers requirement

Materials: Heating Wire NiCr, Ceramic Insulation clamp band FAL/Cooling Jacket FAL/tension Spring Stainless steel

Thickness: ~11mm clamp band / Cooling Jacket in accordance to customers requirement

Operating Temperature up to 350°C Max

**Measured at the surface of the heated side**

Load up to 6,5 W/cm<sup>2</sup>

Heating elements must be stored at room temperature in a dry atmosphere

## 3. General Warning references and safety



Warning!!! Hot surface. Do not touch the HCC in operating mode.



Warning!!! Do not work on the HP-HCC when it is connected to an electrical supply. Disconnect the heating band before working on it.

The HP-HCC element should be installed by qualified personnel. The customer is responsible for the correct installation of the heating element.

For a proper operation and safety the HP-HCC element and the heated block must be connected and grounded according to DIN EN 60204-1. The use of additional grounded connections may be required even if HP-HCC is already equipped with a ground connection wire.

The HP-HCC element must be protected against contact, as it may become very hot during its operation.

Appropriate measures must be taken in order to prevent an overheating of the HP-HCC, e.g. by a temperature control system and the choice of an appropriate HCC power element and/or an overheating protection.

No flammable or explosive materials should come into contact with the HP-HCC element. Even in case of malfunction, fire/explosion hazard must be prevented.

Before installation, verify that the HP-HCC is in accordance to your order. The connections voltage should not exceed the operation voltage of the HP-HCC.

## 4. Installation

### 4.1 Assembling the HP-HCC on a cylinder

The HP-HCC will be delivered with mounted screws and a transport securing device. Loose the screws at the cooling jacket. Open the jacket, then loose the screws at the heater band and pull out the transport securing device.

Mount the ceramic heaters around the cylinder; if you must spread the heater bands to the diameter of the cylinder don't over-spread the ceramic heater bands. The maximum is the diameter of the cylinder. Overspreading could damage the heater band.

Tighten the screws, so that the heater can't be turned around the tool or the cylinder. If there are screws with tension springs, the springs should not be compressed completely together. If the tension spring is completely together, turn the screw a half turn back. Tension springs cannot regulate all extensions of the heater band. The heating elements must be checked periodically, if the heater band still fits on the cylinder. **Assure that there is no split between the cylinder and the heater band. The form of the heater bands must fit with the form of the cylinder. A misfit disrupts the thermal transfer and could destroy the heating band. To bolt over the screws could destroy the ceramic heater band too.**

Mount the cooling elements under the heating elements. Fix the heating elements on the cylinder but do not tighten the screws. Push the Aluminium half shells together, so that the gap between them is maximal 1mm. Tighten the screws at the heating element. Look that the cooling elements are also in position. Check the position of the cooling elements after fastening the screws. The half shells are longer than the heating element, to assure that the heating element is completely in contact with the cylinder.

**Assure that there is no split between the cylinder and the heater band. The form of the heater bands must fit with the form of the cylinder. A misfit disrupts the thermal transfer and could destroy the heating band. To bolt over the screws could destroy the ceramic heater band too.**