MELTEX®

Hot Melt Application Heads
Series EB

Manual P/N 409 496 E
- English -

NORDSON ENGINEERING GMBH • LÜNEBURG • GERMANY
Note
This manual applies to the entire series.

Order number
P/N = Order number for Nordson products

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Safety

**WARNING:** Please follow the safety regulations enclosed as a separate document and the specific safety notes in the entire documentation.

Description

1. *Intended Use*

Hot melt application heads of the series EB - hereafter referred to as *application head* - may only be used in the wood working industry to apply hot melt adhesive to edges (*Edge Banding*).

Any other use is considered to be unintended. Nordson will not be liable for personal injury or property damage resulting from unintended use.

Intended use also includes the observance of Nordson safety instructions. Nordson recommends obtaining detailed information about the materials to be used.

*Unintended Use - Examples -*

The application heads may not be used under the following conditions:

- In defective condition
- When modifications or changes have been made by the customer
- In a potentially explosive atmosphere
- When hot melt materials not suitable for the unit are used
- When the values stated under *Specifications* are not complied with.

The application heads may not be used to process the following materials:

- Explosive and flammable materials
- Erosive and corrosive materials
- Food products.
The application head is designed to protect operating personnel from possible risks. However, some residual risks cannot be avoided. Personnel must consider the following:

- Risk of burns on the hot application head: from hot adhesive, when making adjustments.
- Inhalation of potentially hazardous hot melt material vapors.

The position numbers in the illustrations do not correspond to the position numbers in the technical drawings and the spare parts lists.

**NOTE:** Figure 1 shows the essential components of the application head. The included technical drawings contain fine details.

The application head is intended to be used especially for edge banding applications of PUR and other hot melt adhesives common in the woodworking industry to wooden boards (*substrate*).

The adhesive is conveyed by a hot melt adhesive feeding unit through a heated hose into the application head and to the mouthpiece; the nozzle consists of the mouthpiece in conjunction with the shim plate. The adhesive supply to the nozzle is switched on and off by an electro-pneumatic control module.

The desired application width is determined by the user by either cutting out the desired amount from the shim plate or by selecting an appropriately routed mouthpiece. (Refer to *Operation, Determining Application Width and Quantity*.)

**Heating**

Electrical heater cartridges are used to heat the unit. The temperature is continuously measured by a temperature sensor and controlled by an electronic temperature controller. The temperature controller is normally located in the electrical cabinet of the hot melt adhesive feeding unit.
5. **Components of the Application Head**

![Diagram of Application Head]

**Fig. 1 Application head**

1. Stand  
2. Fine height adjustment  
3. Clamp fixing device  
4. Swivel holder  
5. Pressure spring  
6. Clamp limit stop  
7. Adjustment screws  
8. Sliding plate  
9. Mouthpiece  
10. Shim plate  
11. Body  
12. Hose connection fitting  
13. Screw-on stopper  
14. Connector  
15. Control module  
16. Connecting cable  
17. Clamp lever *clamp fixing device*  
18. Solenoid valve  
19. Air connection

**Note:** If a mouthpiece with routed application width is used, there is no pos. 10 *shim plate*.

**Note:** Special models with customer-specific features may deviate somewhat from the illustration.
### 6. ID Plate

<table>
<thead>
<tr>
<th>Type of application head</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nordson order number</td>
<td></td>
</tr>
<tr>
<td>Serial number</td>
<td></td>
</tr>
<tr>
<td>Operating voltage $V = \text{Volt}$</td>
<td></td>
</tr>
<tr>
<td>Power consumption $W = \text{Watt}$</td>
<td></td>
</tr>
</tbody>
</table>

![Fig. 2](image-url)
Installation

**WARNING:** Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

1. **Unpacking**
   Unpack carefully, then check for transport damage. Reuse packaging materials or dispose of according to local regulations.

2. **Transport**
   The hot melt application head is a high precision, valuable part. Handle very carefully! Protect the nozzle from damage.

3. **Storage**
   Do not store outside! Protect from humidity and dust. Do not lay unit on the nozzle. Protect the nozzle from damage.

4. **Disposal**
   When your Nordson product has exhausted its purpose and/or is no longer needed, dispose of it according to local regulations.

5. **Installation**
   When installing the application head, the following points should be observed in order to avoid unnecessary effort later.
   - The direction of application (in relation to the path direction of the substrate) can be modified from *application direction right* to *application direction left* without any additional components (refer to *Changing Direction of Application*).
   - The control module as well as the hose connection fitting can be attached in different positions to best suit the space at the location of installation (refer to *Adapting Unit to Location*).
   - Ensure that adhesive fumes do not exceed the prescribed limits. Suction off adhesive fumes. Ensure sufficient ventilation of the surroundings.
   - Protect from humidity, vibrations, dust and drafts.
   - Ensure easy access to parts relevant to maintenance and operation.
   - When installing the unit, ensure that cables, air hoses and heated adhesive hoses can not be bent, pinched, torn off or otherwise damaged.
5. **Installation (contd.)**

**Changing Direction of Application**

**WARNING:** Risk of pinching! Be aware of the spring restoring force between the swivel holder and the clamp fixing device.

1. Remove both hexagon head screws (1) on the connector in order to remove the body and the connector from the swivel holder.

2. Release clamp fixing device with clamp lever, then remove from the stand along with the swivel holder.

3. Remove height fine adjuster from the swivel holder and screw onto the opposite side.

4. Move pressure spring (5, Fig. 1) to the other side of the clamp fixing device. To do this, loosen hexagon head screw (2) and pull out bolt from clamp fixing device.

5. Release clamp limit stop, remove from stand, then mount the other way around and tighten.

6. Place the clamp fixing device and the swivel holder back onto the stand the other way around, such that the cylinder pin in the clamp limit stop determines the position of the clamp fixing device.

7. Screw body and connector onto swivel holder with both hexagon head screws (1).

8. Unscrew mouthpiece (with shim plate if appropriate), turn it 180°, then screw on again, such that the adhesive outlet is on the other side of the body.

9. Remove sliding plate and re-mount on the other side of the body.

---

**Fig. 3**  Direction of application:  

A = left  
B = right
5. **Installation (contd.)**

**Attaching to Parent Machine**

1. Make three thread bore holes M 8 as shown in figure 4 in a suitable place on the parent machine.

2. Use the adjustment screws to align the stand such that it is parallel to the substrate, then screw on.

![Fig. 4 Thread bore holes](image)

**Adapting Unit to Location**

1. Unscrew hose connection fitting and screw-on stopper of the suitable connecting thread (right, left or on the face) from the body.

2. Screw hose connection fitting and screw-on stopper into the body as desired.

3. Unscrew control module with tube and solenoid valve from the body.

4. Screw control module with tube and solenoid valve onto the body in the desired position (rotated 90°, 180° or 270°).
5. Installation (contd.)

**Adjusting Height and Angle of Incidence**

**WARNING:** Risk of pinching! Be aware of the spring restoring force between the swivel holder and the clamp fixing device.

**WARNING:** Risk of pinching! Support the application head when relieving the clamping tension of the clamp fixing device and the clamp limit stop.

1. Slightly unscrew both screws (1) on the connector.
2. Relieve clamping tension of clamp fixing device and clamp limit stop.
3. Move and turn the clamp fixing device and clamp limit stop along the column such that the mouthpiece is moved to a suitable position on the substrate. The sliding plate should be pressed lightly onto the substrate with spring tension.
4. Restore clamping tension of clamp fixing device and clamp limit stop.
5. Tighten both screws (1).
6. Make fine adjustments to the height with the snap-in screw (2) if necessary.
7. If necessary, make fine adjustments to the angle of incidence and thus to the pressure:
   a. Release locknut on the screw (3).
   b. Use the screw (3) to adjust the angle of incidence.
   c. Tighten locknut.
6. **Electrical Connection**

**WARNING:** Observe voltage values found on the ID plate of the application head and solenoid valves.

1. Connect the cable with plug (1) to the socket of the heated hose.
2. Fasten the plug connection with the securing ring - when present.

**NOTE:** Depending on the model of the hot melt application system, the solenoid valves are triggered either via the valve control lead of the heated hose or via a separate control lead.

3. If necessary, connect a separate control lead for the solenoid valve.

---

**Laying Cable**

**WARNING:** Ensure that cables do not touch rotating and/or hot parts. Do not pinch cables. Check regularly for damage. Replace damaged cables immediately!

---

Fig. 6
7. **Pneumatic Connection**

The application head may only be connected to pressure-controlled and conditioned compressed air.

**Compressed Air Filter (Accessory)**

Safe operation and lifetime of pneumatically driven application heads essentially depend on conditioning of the compressed air. Dust or condensation will increase the wear on sliding surfaces and sealing elements, thereby causing damage. To avoid these contrary influences, the control air for Nordson application heads must be conditioned by an air filter with air condensate bowls. The air conditioning unit cleans and dries the compressed air.

**NOTE:** The filter mesh size may not exceed 40 μm.

**Connecting Compressed Air**

**NOTE:** Lubricated control air is extending the operational lifetime of control units. Use only resin-free, low-viscosity silicon oil. Nordson recommends:

<table>
<thead>
<tr>
<th>Lubricant</th>
<th>P/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Klüber Unisilkon TK 002/100</td>
<td>253 700</td>
</tr>
</tbody>
</table>

1. Connect control air hose to the air connection (1).

2. Set air pressure to 6 bar / 0.6 MPa / 87 psi.

**NOTE:** Ensure that control air is on at all times. Among other functions, it keeps the nozzle closed when EMERGENCY OFF occurs or when the system comes to a standstill. This prevents hot melt material from dripping out of the nozzle.

---

8. **Exhausting Adhesive Vapors**

Ensure that adhesive vapors do not exceed the prescribed limits. Always observe the safety data sheet for the material to be processed. Exhaust adhesive vapors if necessary. Provide sufficient ventilation in the area where the machine is set up.
9. Installing Heated Hoses

**WARNING:** Hot! Risk of burns. Wear heat-protective gloves.

If there is cold hot melt material in the hose connection fitting (1) and/or hose connection (2), these components must be heated until the hot melt material softens.

1. First connect the hose (3) electrically to the unit.
2. Heat application head and hose until the hot melt material softens.
3. Screw the hose onto the unit.

**Connecting**

**Disconnecting**

**WARNING:** System and hot melt material pressurized. Relieve pressure before disconnecting heated hoses. Failure to observe can result in serious burns.

**Relieving Pressure**

1. Set motor speed(s) of the unit feeding the material to 0 min⁻¹; switch off motor(s).
2. Place a reservoir under the nozzle of the application head.
3. Activate the solenoid valve electrically or manually. Repeat this procedure until no more hot melt material flows out.
4. Re-use hot melt material or dispose of properly according to local regulations.

**Second Open-jawed Wrench**

Using a second open-jawed wrench prevents the hose connection fitting on the unit from turning.
Operation

WARNING: Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

1. Triggering Solenoid Valve

CAUTION: Trigger the solenoid valve only when the application head is heated to operating temperature! Seals in the control module can become damaged if the adhesive is too cold.

2. Setting Temperatures

The procedure for setting the temperatures is described in the temperature controller manual. Temperature controllers are not part of the application head. They can be located e.g. in the electrical cabinet of a hot melt application unit or in a separate electrical cabinet.

Maximum Operating Temperature

200 °C / 392 °F

NOTE: When setting the temperature, the temperature prescribed by the hot melt adhesive manufacturer is decisive. The maximum operating temperature for the product and heated components described here may not be exceeded.

Nordson will assume no warranty or liability for damage resulting from incorrect temperature settings.

3. Determining Application Width and Quantity

The application width is determined either by a mouthpiece from which the desired width has been routed or by a shim plate between the original mouthpiece (no routing) and the body. The user must cut the desired application width from the blank shim plate, cutting sharp edges and avoiding burrs, beginning at line A for application direction left or at line B for application direction right (refer to Fig. 9 and Installation, Installation).

The adhesive quantity needed depends on the desired adhesive application weight and on the production speed. It is usually preselected using the pump speed dials. The optimum setting must be determined by trial and error.

The speed dials are located e.g. in the electrical cabinet of an adhesive applicator or in a separate electrical cabinet.
3. **Determining Application Width and Quantity**
   (contd.)

Depending on the model of the adhesive application system, the pump speed may be regulated by a tachometer generator or by an electronic pressure controller.

The maximum application quantity for a certain material pressure is determined by the depth of the routed section on the mouthpiece or by the thickness of the shim plate. A blank mouthpiece and a 0.5 mm thick shim plate are included with the application head.

Mouthpieces with routed depths of 0.3 mm and 0.5 mm are available upon request for application direction left or application direction right for any application width (up to 40 mm).

Refer to drawings in the appendix for additional blank shim plates and mouthpieces.

---

**Replacing Mouthpiece / Shim Plate**

**WARNING:** Hot! Risk of burns. Wear heat-protective gloves when working on the heated application head.

1. If necessary, cut out the desired application width from a new shim plate with a suitable thickness (Refer to Fig. 10).
2. Heat application head to operating temperature.
3. Unscrew mouthpiece. Remove old distance plate if necessary.
4. Remove adhesive residue from the surface.
5. Screw mouthpiece - with shim plate when appropriate - onto body. Ensure that the outlet direction is correct.

---

4. **Important When Using Polyurethane Application Materials (PUR)**

When processing polyurethane application materials (PUR), the following points must be observed:

- When the maximum pollutant concentration is exceeded, use respiratory protection.

- During breaks and interruptions, reduce the temperature and coat the application head nozzles with Vaseline or dip in suitable oil.

- Before prolonged standstill of the application system, rinse with a suitable cleaning agent. Use only a cleaning agent recommended by the material manufacturer.

- Open material connections should be closed airtight.
### 5. Settings Record

<table>
<thead>
<tr>
<th>Production information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adhesive</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cleaning agent</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Basic settings</th>
<th>Shim plate thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperatures</th>
<th>Application head</th>
<th>Setpoint</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Under temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Overtemperature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

Form filled out by:

Name | Date
Maintenance

**WARNING:** Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

**NOTE:** Maintenance is an important preventive measure for maintaining operating safety and extending the operational lifetime of the unit. It should not be neglected under any circumstances.

### 1. Relieving Pressure

**WARNING:** System and hot melt material pressurized. Before disconnecting heated hoses and replacing filter cartridges, relieve system pressure. Failure to observe can result in serious burns.

**WARNING:** Hot! Risk of burns. Wear heat-protective gloves.

1. Set motor speed(s) of the unit feeding the material to 0 min⁻¹; switch off motor(s).
2. Place a reservoir under the nozzle of the application head.
3. Trigger the solenoid valve electrically or manually. Repeat until hot melt material no longer flows out of the nozzle.
4. Re-use hot melt material or dispose of properly according to local regulations.

---

![Fig. 11 Principle drawing material pressure relief](EPAH200L058A0997)

*Fig. 11 Principle drawing material pressure relief*
2. **Maintenance Table**

The stated intervals are based on general experience. Depending on the location of the unit, the production conditions and the operating time, other maintenance intervals may prove necessary.

<table>
<thead>
<tr>
<th>Unit Part</th>
<th>Activity</th>
<th>Interval</th>
<th>Refer to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete application system</td>
<td>Rinse with cleaning agent</td>
<td>When changing adhesive, if the adhesives used can not be mixed Before prolonged production interruptions, if PUR adhesive is processed</td>
<td>Page 18 Observe adhesive manufacturer's instructions</td>
</tr>
<tr>
<td>Complete application head</td>
<td>Inspection for damage</td>
<td>Daily</td>
<td>Page 16</td>
</tr>
<tr>
<td></td>
<td>External cleaning</td>
<td>Daily</td>
<td>Page 17</td>
</tr>
<tr>
<td>Complete nozzle</td>
<td>External cleaning</td>
<td>Daily</td>
<td>Page 17</td>
</tr>
<tr>
<td>(Mouthpiece receptacle, shim plate and mouth piece)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sliding plate</td>
<td>Check condition, replace if necessary</td>
<td>Daily</td>
<td>-</td>
</tr>
<tr>
<td>Nozzle</td>
<td>Disassemble and clean</td>
<td>When soiled</td>
<td>Page 19</td>
</tr>
<tr>
<td>Control module</td>
<td>Check leakage hole *</td>
<td>Weekly</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Replace</td>
<td>When leaking</td>
<td>-</td>
</tr>
</tbody>
</table>

3. **Inspection for External Damage**

**WARNING:** When damaged parts pose a risk to the operational safety of the unit and/or safety of personnel, switch off the unit and have the damaged parts replaced by qualified personnel. Use only original Nordson spare parts.
4. **External Cleaning**

External cleaning prevents impurities created during production from causing the unit to malfunction.

**CAUTION:** Do not damage or remove warning signs. Damaged or removed warning signs must be replaced by new ones.

**CAUTION:** Never use hard tools. Use extreme care when handling the nozzle.

**WARNING:** Hot! Risk of burns. Wear heat-protective gloves.

Remove adhesive residue with a cleaning agent recommended by the adhesive manufacturer whenever possible. Heat with an air heater if necessary. Remove dust, fluffs, etc. with a vacuum cleaner or a soft cloth.

1. Remove hot melt material residue from the nozzle promptly with a soft cloth. This should be done before the material cracks.

2. Remove tough and hardened residue with a wooden or PTFE spatula if necessary.

**NOTE:** * The leakage hole is the hole in the control unit casing through which the nozzle stem can be seen.
5. **Rinsing with Cleaning Agent**

   **CAUTION:** Use only a cleaning agent recommended by the adhesive manufacturer. Observe Manufacturer Safety Data Sheet (MSDS) for the cleaning agent.

   **WARNING:** Hot! Risk of burns. Wear safety goggles and heat-protective gloves.

1. Empty the adhesive feeding unit and fill with cleaning agent.
2. Heat up heated system components.
3. Place a suitable reservoir under the nozzle.
4. Set the speed and pressure of the feeding unit to the lowest values.
5. Electrically or manually trigger solenoid valve.
6. Switch on feeding unit.
7. Continue to convey the cleaning agent until the cleaning agent flowing out of the unit no longer contains adhesive residue.

   **NOTE:** Properly dispose of cleaning agent according to local regulations.

   **NOTE:** Rinse out cleaning agent residue with new adhesive before beginning production.
6. Disassembling and Cleaning Application Nozzle

**CAUTION:** Use only a cleaning agent recommended by the adhesive manufacturer. Observe the Manufacturer Safety Data Sheet (MSDS) for the cleaning agent.

1. Heat application head to operating temperature.

2. Release screws (4) and remove mouthpiece (3) and, if necessary, shim plate (2) from body (1).

3. Use suitable tools to remove cracked hot melt adhesive from the holes and channels.

4. If necessary use 1000-grain wet emery paper and cutting oil (metal machining oil) on the sealing surfaces of the body and the mouthpiece.

5. Use a cleaning agent to dissolve adhesive residue that could not be removed mechanically.

**NOTE:** Properly dispose of cleaning agent, adhesive residue and cutting oil according to local regulations.
7. Maintenance Record

<table>
<thead>
<tr>
<th>Unit part</th>
<th>Activity</th>
<th>Date</th>
<th>Name</th>
<th>Date</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application head</td>
<td>Rinse with cleaning agent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nozzle</td>
<td>Disassemble and clean</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control module</td>
<td>Check leakage hole</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Troubleshooting

**WARNING:** Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

**WARNING:** Troubleshooting activities may sometimes have to be carried out when the unit is energized. Observe all safety instructions and regulations concerning energized unit components (active parts). Failure to observe may result in an electric shock.

### 1. Troubleshooting Table

When troubleshooting, other components of the application system may need to be considered.

The troubleshooting tables serve as an orientation for qualified personnel. They cannot, however, replace targeted troubleshooting with the help of wiring diagrams and measuring instruments. They also do not include all possible problems, only those which most typically occur.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Corrective Action</th>
<th>Refer to</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No adhesive</strong></td>
<td>Application head has not yet reached operating temperature</td>
<td>Wait until temperature has been reached, check temperature setting if necessary</td>
<td>Page 12</td>
</tr>
<tr>
<td></td>
<td>Not enough adhesive in the application unit</td>
<td>Fill</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Pump of the hot melt material application unit does not work</td>
<td>Check</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Control air not connected</td>
<td>Connect</td>
<td>Page 10</td>
</tr>
<tr>
<td></td>
<td>Nozzle blocked</td>
<td>Disassemble and clean nozzle</td>
<td>Page 19</td>
</tr>
<tr>
<td></td>
<td>Nozzle stem is stuck</td>
<td>Replace control module</td>
<td>-</td>
</tr>
<tr>
<td><strong>No adhesive: application head is cold</strong></td>
<td>Temperature not correctly set on temperature controller</td>
<td>Set correct temperature</td>
<td>Page 12</td>
</tr>
<tr>
<td></td>
<td>Plug has no contact</td>
<td>Secure plug</td>
<td>Page 9</td>
</tr>
<tr>
<td></td>
<td>Heater cartridge defective</td>
<td>Replace heater cartridge</td>
<td>-</td>
</tr>
</tbody>
</table>
## 1. Troubleshooting Table (contd.)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Corrective Action</th>
<th>Refer to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesive application is not exact</td>
<td>Nozzle partially blocked or damaged</td>
<td>Disassemble and clean nozzle, replace shim plate or mouthpiece if necessary</td>
<td>Page 19</td>
</tr>
<tr>
<td></td>
<td>Application head does not have even contact with the substrate</td>
<td>Check height and angle of incidence, adjust if necessary</td>
<td>Page 8</td>
</tr>
<tr>
<td></td>
<td>Production parameters not attuned to one another</td>
<td>Adjust parameters, change if necessary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unsuitable adhesive</td>
<td>Consult adhesive manufacturer</td>
<td>Data sheet</td>
</tr>
<tr>
<td>The open time is too long</td>
<td>Application temperature too high</td>
<td>Set temperature lower</td>
<td>Page 12</td>
</tr>
<tr>
<td></td>
<td>Unsuitable adhesive</td>
<td>Consult adhesive manufacturer</td>
<td>Data sheet</td>
</tr>
<tr>
<td>The open time is too short</td>
<td>Application temperature too low</td>
<td>Set temperature higher</td>
<td>Page 12</td>
</tr>
<tr>
<td></td>
<td>Unsuitable adhesive</td>
<td>Consult adhesive manufacturer</td>
<td>Data sheet</td>
</tr>
</tbody>
</table>
Specifications

1. Operating Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum processing temperature</td>
<td>200 °C 392 °F</td>
</tr>
<tr>
<td>Maximum operating air pressure</td>
<td>6 bar 0.6 MPa 87 psi</td>
</tr>
<tr>
<td>Maximum adhesive pressure at inlet</td>
<td>100 bar 10 MPa 1450 psi</td>
</tr>
<tr>
<td>Maximum control module locking pressure when air pressure fails</td>
<td>70 bar 7 MPa 1015 psi</td>
</tr>
<tr>
<td>Adhesive viscosity that can be processed</td>
<td>10000 mPas to 100000 mPas</td>
</tr>
<tr>
<td>Maximum application quantity</td>
<td>140 g/min with</td>
</tr>
<tr>
<td></td>
<td>Adhesive pressure: 68 bar</td>
</tr>
<tr>
<td></td>
<td>Shim plate thickness: 0.5 mm</td>
</tr>
<tr>
<td></td>
<td>Application width: 40 mm</td>
</tr>
<tr>
<td></td>
<td>Adhesive viscosity: 85000 mPas</td>
</tr>
<tr>
<td>Heating time</td>
<td>Approx. 20 min</td>
</tr>
</tbody>
</table>

2. Electrical Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage (heater)</td>
<td>230 V</td>
</tr>
<tr>
<td>Power consumption (heater)</td>
<td>300 W</td>
</tr>
<tr>
<td>Operating voltage (solenoid valve)</td>
<td>24VDC</td>
</tr>
<tr>
<td>Power consumption (solenoid valve)</td>
<td>8.5 W</td>
</tr>
<tr>
<td>Temperature sensor</td>
<td>Fe-CuNi (FE/KO) or Ni 120</td>
</tr>
</tbody>
</table>

3. Other Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>Approx. 5.6 kg</td>
</tr>
<tr>
<td>Noise emission</td>
<td>&lt; 70 dBA</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP 50</td>
</tr>
<tr>
<td>Dimensions length x width x height [mm]</td>
<td>Approx. 244 x 90 x 430</td>
</tr>
</tbody>
</table>