

CHAPTER 8

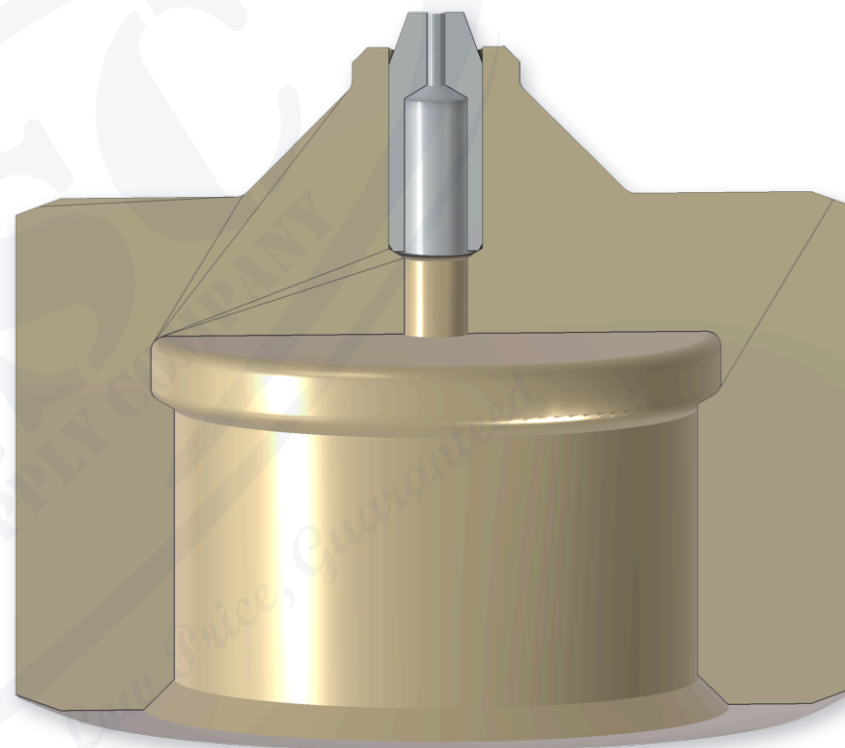
Cleaning and Troubleshooting

Cleaning and Troubleshooting

Tank cleaning, flushing and purging; modules that will not open, close or seal; nozzle clogs; and QR links to the HMSC online tools.

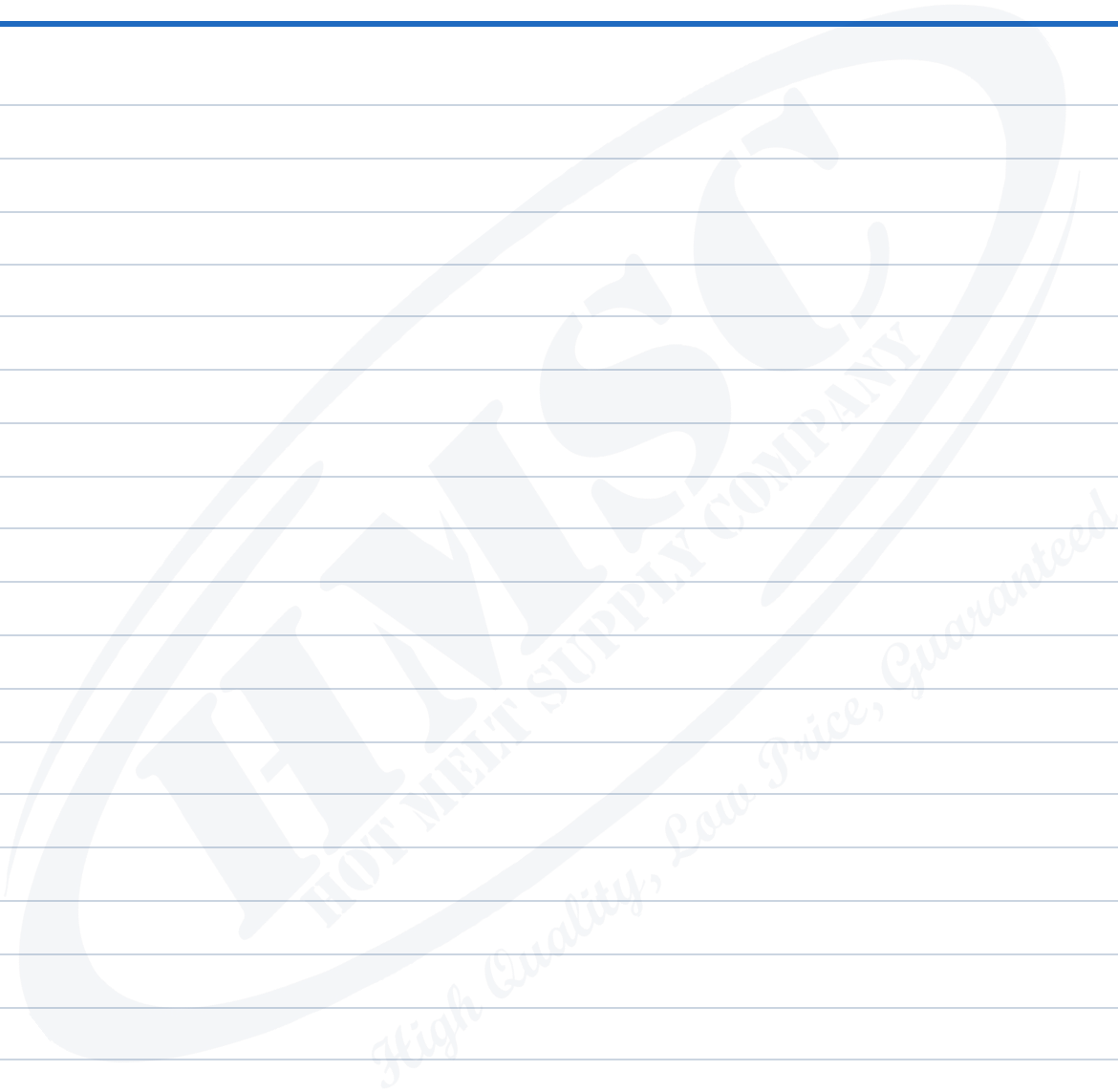
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Notes





Cleaning and Troubleshooting

Cleaning and Troubleshooting

Most hot melt problems start with char, debris, the wrong air pressure or the wrong temperature. Find the symptom, then go to the page shown.

Symptom	Go to
Adhesive is dark, has specks or char	Tank Cleaning, Flushing and Purging
Changing to a different adhesive	Tank Cleaning, Flushing and Purging
Module will not open, or opens late	Module Troubleshooting
Module will not close, or keeps dispensing	Module Troubleshooting
Module drips or strings	Module Troubleshooting
Bead is thin, missing or off line	Nozzle Clogs and Buildup
Adhesive builds up on the nozzle tip	Nozzle Clogs and Buildup
Melter fault code or heater problem	Online Tools: ProBlue and Flex troubleshooters

Relieving system pressure

Do this before every procedure in this chapter.

- 1 Switch the melter off**
Turn off the melter, or stop the pump.
- 2 Open the drain valve**
Lower the drain chute, place a waste container under it and slowly open the drain valve to release pressure.
- 3 Close the valve**
Close the drain valve, wipe it clean and raise the chute.
- 4 Trigger the guns**
Trigger each gun into a waste container until adhesive stops flowing.

Safety. Hot melt, heated parts and adhesive under pressure cause burns. Wear heat resistant gloves, safety glasses and long sleeves. Relieve system pressure before opening any fitting, filter, module or nozzle.



WHEN CHANGING ADHESIVE, OR WHEN CHAR BUILDS UP

Tank Cleaning, Flushing and Purging

Cleaning and Troubleshooting

- 1 Empty the tank**
Run the melter normally until the tank is empty, then stop the pump.
- 2 Set the temperature**
Let the melter heat or cool to the temperature on the cleaning fluid data sheet.
- 3 Wipe out the tank**
Wearing protective equipment, wipe residual adhesive and loose char from the tank walls.
- 4 Flush the melter only**
Run the flush through the melter hydraulic system only. Turn off all production hoses: flushing them breaks down char on the hose walls that purging cannot fully clear. Connect an old or spare service hose from the manifold back into the tank, add hot melt flush and circulate it for 20 to 30 minutes. Then pump the fluid through the service hose into a high temperature safe vessel.
- 5 Hand clean the tank**
Remove char and cleaning solution residue from the tank by hand.
- 6 Purge**
Add fresh adhesive and purge through the service hose until all cleaning fluid is removed. Open the drain valve slowly and pump out the rest of the purge material.
- 7 Replace the tank filter**
Install a new pump (tank) filter.
- 8 Purge the production hoses**
Remove the inline filters. With a high temperature safe vessel under each inline filter adapter, pump fresh adhesive through the production hoses and out of the adapter until clean, char free adhesive comes out. If char remains, replace the hose.
- 9 Replace the filters**
Install new inline or integrated filters.
- 10 Purge the guns**
Remove the nozzles and purge fresh adhesive through the gun and modules. Fire the guns onto white paper in a heat safe container and inspect for char. If char persists, keep purging; when it is clean, reinstall the nozzles.



Hot melt flush, 1 gal
T2K07F5S
Replaces Nordson 270755



Hot melt flush, 5 gal
T2K07F6S
Replaces Nordson 270756



Melter flushing kit
T10K23H8S
Replaces Nordson 1072368
With fluid.



Clean when changing adhesive type or grade, or when char builds up. Use the cleaning fluid named on your adhesive data sheet; never use a flammable solvent, water or steam on a melter.

Procedures are general guidance; always follow the equipment manual and the adhesive and cleaning fluid data sheets. Nordson and ProBlue are trademarks of Nordson Corporation. Hot Melt Supply Company is not affiliated with Nordson Corporation.



NOT OPENING, NOT CLOSING, LEAKING

Module Troubleshooting

Cleaning and Troubleshooting

Will not open, or opens late

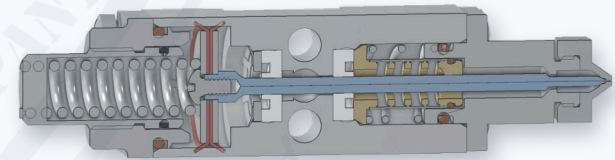
- Air pressure too low for the hydraulic pressure. Set the air at or above the minimum in the air pressure table (Modules chapter).
- No air signal: check the solenoid (24 VDC at the coil, LED on), the timer or pattern control output and the air line.
- AOAC air lines swapped between the open and close ports, resulting in reverse operation.
- Module or adhesive below temperature, or char holding the needle or ball.
- Worn air piston seals: rebuild or replace the module.

Will not close, or keeps dispensing (leaking when stopped)

- AOAC: no air on the close port. AOSC: weak or broken spring.
- Solenoid stuck open, or its exhaust blocked.
- Between module and gun: replace the module O-rings.
- Char or debris on the seat holding the needle or ball open.

Drips or strings

- Clogged or partially clogged nozzle.
- Nozzle loose or seat face damaged. Clean the faces and tighten the nozzle to 40 in-lb.
- Viscosity too high: increase the adhesive temperature in 5 degree steps.
- Hydraulic pressure too low: increase the nozzle diameter, use a shorter nozzle barrel, or increase pump pressure.
- This can look like leaking. If it stops when the line stops, the adhesive is likely sticking or not fully clearing the nozzle after each shot.



Check air pressure first: the minimum applicator air rises as hydraulic pressure drops (55 psi at 550 psi and above, 65 psi from 400 psi, 75 psi from 250 psi). 60 psi is the nominal solenoid pressure.

HMSC modules are tested to open at the minimum opening pressure and to fully open, close and seal before they ship. See the Modules chapter for replacements.



CLEARING A NOZZLE, AND KEEPING IT CLEAR

Nozzle Clogs and Buildup

Cleaning and Troubleshooting

1 Relieve pressure

Relieve system pressure and keep the gun at operating temperature.

2 Remove the nozzle hot

Wearing heat resistant gloves, remove the nozzle with the correct wrench.

3 Probe the orifice

Push a cleaning probe a little smaller than the orifice through from the tip. Do not drill or use a larger wire: it enlarges the orifice and changes the bead.

4 Clean the faces

Wipe the nozzle seat and threads clean while warm. Do not scrape the tip with steel tools.

5 Reinstall and check

Reinstall the nozzle, then check the bead and pattern. If it will not clear, replace the nozzle.



Nozzle cleaning kit T9P19A5S

Replaces Nordson 901915
Pin vise, case and .007, .011 and .014 probes.



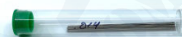
Cleaning probe .007 T9P19B2S

Replaces Nordson 901922
Pack of 10.



Cleaning probe .011 T9P19B3S

Replaces Nordson 901923
Pack of 10.



Cleaning probe .014 T9P19B4S

Replaces Nordson 901924
Pack of 10.



Cleaning probe .018 T10C20P2S

Replaces Nordson 1032002
For .020 to .024 orifices, pack of 10.



Pin vise T9P19A6S

Replaces Nordson 901916
Holds the cleaning probes.



Keep nozzles clear

- Change the pump filter on schedule, and use inline hose filters or filtered modules on small orifices (.008 and .012).
- Keep tank and hose temperatures at the adhesive data sheet setting, and use standby to stop char.
- Clean the tank when char shows.

Procedures are general guidance; always follow the equipment manual and the adhesive and cleaning fluid data sheets. Nordson and ProBlue are trademarks of Nordson Corporation. Hot Melt Supply Company is not affiliated with Nordson Corporation.



SCAN TO OPEN. FREE CUSTOMER ACCOUNT AT WWW.HOTMELTSUPPLYCO.COM/TOOLS

Online Tools

Cleaning and Troubleshooting



Troubleshooter and Parts

Ask a question in plain words and get an answer from more than 200 Nordson service manuals, with the manual pages.



ProBlue Troubleshooter

ProBlue 4, 7, 10, 15, 30 and 50: fault flowcharts, power path, boards and drills.



ProBlue Flex Troubleshooter

ProBlue Flex melters: faults, power path, boards, zones and drills.



Gun Configurator

Build a gun configuration code, HMSC part number and bill of materials from dropdowns.



Line Audit

Document every melter, hose and gun on a line and build its spare parts list.



Quote Builder

Search the catalog and send an itemized quote request.



Glue Usage Calculator

Model each bead: nozzle flow, stitch savings and cost per box, hour and pound.



GSM / Pump RPM

Coat weight and pump speed for slot and spray coating lines.



DeltaMix Calculator

Foamed adhesive savings, density targets and machine settings.



All tools in one place

Scan for the HMSC tools page, or call 1-888-202-1788. The calculators and troubleshooter are open to every signed in customer; quotes, line audits and the ProBlue and Flex troubleshooters are activated by HMSC when we link your account to your customer number.



Notes

