

<b>Title: Cleaning Protocol for AirJet Dispensers</b>			<b>Owner: Support</b>
<b>Doc No: SI 600-05</b>	<b>Revision: A</b>	<b>Rev Date: 22 Feb 2018</b>	<b>Effective Date: 01 Mar 2018</b>

**Revisions:**

<b>Revision:</b>	<b>ECR No:</b>	<b>Date:</b>	<b>Description of Change:</b>	<b>Originator:</b>
A	NA	22 Feb 2018	Initial Release	Anthony Tran

**1.0 Purpose**

This purpose of this document is to describe the procedure for performing an extensive internal and external cleaning of the AirJet aerosol liquid dispenser. The procedure should be implemented at regular intervals in addition to the standard daily and weekly cleaning routines applicable to all dispensers (refer to Daily and Weekly Cleaning Protocol for BioDot Dispensers; SI 600-01). The frequency this protocol should be performed will depend on application type and usage-level.

**2.0 Scope**

This cleaning protocol applies to AirJet dispensers and to all operators of the dispenser. However, the user must validate cleaning and decontamination procedures to ensure suitability for specific applications. The user should also select and substitute cleaning agents used based on the solubility properties of materials dispensed.

**3.0 Reference**

SI 600-01      Daily and Weekly Cleaning Protocol for BioDot Dispensers

**4.0 Responsibilities**

The customer is responsible for damages to system components that may occur while performing the protocol. It is the responsibility of the customer to adhere to these cleaning procedures as a minimum standard for maintenance of the AirJet dispenser. The frequency this procedure should be performed is to be determined by the end-user, as it is highly dependent on application type and usage-level. Deviations from this protocol may result in compromised system performance.

**5.0 Definitions**

NA

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## 6.0 Procedure

- 6.1. Disconnect air tubing and dispense tubing from the AirJet.
- 6.2. Raise the AirJet needle to a safe open position by rotating the micrometer adjustment knob counter-clockwise until the "0" tick mark on the knob lines up with the "3" tick mark on the fixed barrel of the micrometer.
- 6.3. Remove the Airjet together with the clamp from the dispensing bracket by loosening the thumb screw at the rear-end of the clamp located behind the AirJet.
- 6.4. Loosen the clamp around on the Airjet by loosening the horizontal screw with an allen wrench. Vertically reposition the Airjet in the clamp so that lock-ring is visible below the clamp. Re-tighten the clamp.
- 6.5. Hold the lower half of the AirJet casing firmly with one hand while rotating the upper half of the AirJet casing counterclockwise (top-down perspective). Turn until the upper and lower halves of the AirJet can be separated.
- 6.6. Carefully pull the needle straight out of the spindle within the lower-half of the AirJet. Be sure not to let the needle tip make contact with any of the walls or other parts, as this may cause damage to the needle tip.
- 6.7. Remove any spacers and remove the lock-ring by using the wrench in the AirJet repair toolkit provided with the system.
- 6.8. Unscrew the spindle piece from inside the shaft using a flathead screwdriver. You'll feel resistance caused by the inner O-rings. Keep unscrewing until the spindle spins freely inside the outer case. Carefully pull the spindle out.
- 6.9. Check for debris or reagent build-up around the O-rings on the spindle. Flush the entire spindle with water if necessary to rinse off debris.
- 6.10. Inspect O-rings and check for cracks or tears. Replace if necessary.
- 6.11. Remove the crown from the cap, but leave the cap on the outer case.
- 6.12. Insert the spindle back into the outer case and thread the spindle in until the tip of the spindle is flush with the cap.
- 6.13. Look upwards into the reagent exit hole at the bottom of the nozzle cap and keep threading the spindle until the spindle tip protrudes out of the cap slightly. Thread

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the spindle further so that the the exact length of the spindle's protrusion past the end of the cap is 0.007" (0.171mm), or as close as possible.

- 6.14. Place the lock-ring back on and tighten. Also replace the spacers if applicable.
- 6.15. Carefully re-insert the needle into the spindle. You'll need to insert it straight in. Do not insert the needle at an angle or you may puncture the O-ring.
- 6.16. Inspect the upper half of the Airjet/micrometer assembly to identify any fluid or residual reagent leaked into the upper half of the AirJet body, which occurs under conditions of over-pressurization. Clean as needed.
- 6.17. Thread the lower half of the Airjet body into the upper half until fully tightened.
- 6.18. Reassemble the AirJet onto the dispense bracket and reconnect fluid path and air tubing.
- 6.19. Adjust micrometer back to original setting.