

# SERVICE BULLETIN

Subject: Authority22 Lane Machine Cleaner Spray Nozzles

Date: 5/22/09

Distribution: Authority22 Customers

Bulletin No. SB09-4

## Revised Maintenance Procedure of Cleaner Spray Nozzles

There have been reports that using the original maintenance procedure for cleaning the Cleaner Spray Nozzles has not been effective under some heavier build up conditions. In response to this report, we have revised the cleaning procedure to find an easier and more cost effective way of cleaning the Cleaner Spray Nozzles.

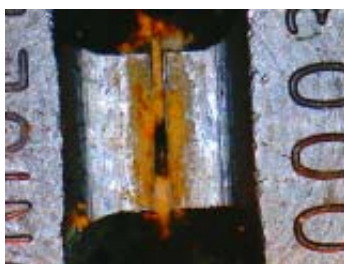
During our testing we tried various cleaners and chemicals and have found two that work very well and are readily available.

1. White Vinegar
2. CLR (Calcium, Lime and Rust remover) and Lime Away are chemical products available for dissolving tough calcium, lime and hard water deposits. The equivalent to these products in Europe is Entkalker.

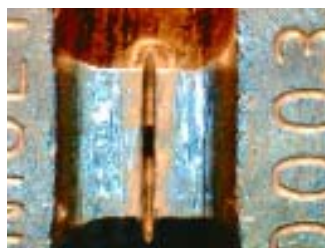
Testing of the white vinegar was the best. It offered the fastest cleaning of the two, is readily available and is inexpensive.

The testing procedure was to soak each nozzle in the two different materials for 30 minutes rinse with water and towel dry. During the test we did not use a brush to scrub the Cleaner Spray Nozzle.

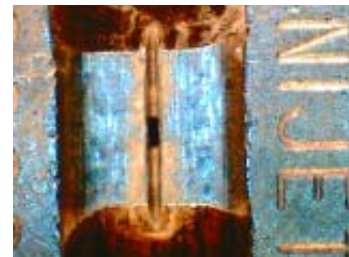
Here are three photos from the white vinegar test. The first photo is a before picture of the Cleaner nozzle. The second photo is after 15 minutes and the third photo is after 30 minutes using White Vinegar.



*Nozzle Before Soaking*



*Nozzle Soaked for 15 Minutes*



*Nozzle soaked for 30 Minutes*

The CLR, Lime Away or the Entkalker in Europe also did a fine job during this 30 minute test, but the availability and cost could be a concern.

Please follow the procedure below when you use any of the suggested cleaning materials:

If you suspect a clogged Cleaner Spray Nozzle, remove the assembly from the machine and place in a small bowl or other suitable container.

**i Note:** Before placing Cleaner Spray Nozzles into the cleaning solution, remove any residue that is in the slot on the front side of the cleaner spray nozzle using a small parts brush or toothbrush.

Immerse the Cleaner Spray Nozzles in the selected cleaning material. Soak for 30 minutes using just enough solution to cover the Cleaner Spray Nozzles. Depending on the severity of the buildup on the Cleaner Spray Nozzles you may need to soak the nozzles for a longer period of time.

**i Note:** As a preventative measure this process should be performed on a monthly basis to ensure consistent cleaning operation of your Authority22 lane machine.

After the Spray Nozzles have soaked for the desired time, remove and rinse thoroughly with warm water. Use a toothbrush to clean off any residual material from the spray nozzle if present. See Figures 1 & 2.

Spray the cleaner spray nozzles dry with compressed air (wear safety glasses when using compressed air). You should be able to see through the cleaner spray nozzle when held up to a light source. Do not attempt to open the orifice using any kind of sharp metal object as the nozzle may be damaged. Toothpicks have been shown to be effective at dislodging stubborn matter from the orifice.

Re-assemble and test using the diagnostic function on your Authority22. Visually confirm that all nozzles are spraying correctly.

This process should be performed on a monthly basis to ensure consistent cleaning operation of your Authority22.



If you have questions regarding this or any other Service Bulletin, please contact the Brunswick Customer Response Center at 1-800-937-2695 or 231-725-4966, FAX 231-725-4667, or E-mail [crsupport@brunbowl.com](mailto:crsupport@brunbowl.com)

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