

## Ultrasonic Cleaner Aluminum Foil Test Manual

### Introduction:

Regularly performing an aluminum foil test with your ultrasonic cleaner is crucial for ensuring optimal cleaning performance. This simple test helps identify potential issues with cavitation, the microscopic bubbles responsible for thorough cleaning within the ultrasonic bath.

### Materials:

- Ultrasonic cleaner
- Ultrasonic Foil Test Kit (containing):
  - High-quality aluminum foil (quantity as specified in the kit)
  - Clear instructions (included in this manual or provided with the kit)
  - Optional: Ultrasonic Foil Test Log Sheet (printable or downloadable)

### Preparation:

1. **Consult your ultrasonic cleaner manual:** Refer to the manufacturer's instructions for any specific requirements or recommendations regarding the foil test.
2. **Gather materials:** Ensure you have all the necessary components from your Ultrasonic Foil Test Kit.
3. **Prepare the aluminum foil:** Cut a strip of aluminum foil according to the specified dimensions in the instructions (typically 15mm to 20mm wide and a length exceeding the depth of your ultrasonic bath).

### Test Procedure:

1. **Fill the ultrasonic cleaner:** Fill your ultrasonic cleaner with fresh water and cleaning solution according to the manufacturer's recommendations.
2. **Degas the solution (optional):** Some ultrasonic cleaners require a degassing cycle to remove any dissolved gases that may interfere with cavitation. Refer to your cleaner's manual for specific instructions.
3. **Prepare the foil strip:**
  - You can fold one end of the foil strip into a cylindrical shape for easier handling.
  - Secure the folded end with a paper clip or other weight to ensure the foil stays submerged during the test.
4. **Suspend the foil strip:**
  - Depending on your test kit or ultrasonic cleaner instructions, you may use waterproof tape or other methods to suspend the foil strip vertically within the bath.
  - The weighted end should be positioned slightly above the bottom of the tank but not touching it.
5. **Run the ultrasonic cycle:** Initiate the recommended cleaning cycle for your ultrasonic cleaner as specified in the manufacturer's instructions.
  - The typical duration is around 30 seconds, but consult your specific cleaner's manual for confirmation.



## 6. Remove and examine the foil strip:

- Carefully remove the foil strip from the bath after the cycle is complete.
- Blot the foil dry with a clean cloth or paper towel.
- Inspect the foil strip for visible signs of cavitation, which will appear as small perforations or pinholes in the aluminum.

### Interpretation of Results:

- **Even perforation pattern:** A uniform distribution of small holes across the foil strip indicates proper cavitation and efficient cleaning within the ultrasonic bath.
- **Uneven perforation pattern or lack of perforations:** This suggests potential issues with cavitation in specific areas of the bath. Further investigation or consultation with the ultrasonic cleaner manufacturer may be necessary.
- **Excessive or irregular perforation:** This can indicate overly aggressive cavitation, potentially damaging delicate objects cleaned in the bath. Adjusting cleaning parameters or consulting the manufacturer might be necessary.



### Recommendations:

- **Record your results:**
  - Consider using the provided Ultrasonic Foil Test Log Sheet (if available) or a separate method to record your test results, including dates, observations, and any adjustments made.
  - This helps track performance over time and identify potential trends.
- **Repeat the test periodically:**
  - Regularly performing the foil test, as recommended by the manufacturer or at least quarterly, ensures optimal cleaning performance and early detection of cavitation issues.
- **Consult your ultrasonic cleaner manual:**
  - Always refer to your specific ultrasonic cleaner manual for detailed instructions, recommendations, and troubleshooting tips related to the foil test.

### Safety Precautions:

- Always follow the safety instructions provided with your ultrasonic cleaner.
- Avoid direct contact with the cleaning solution during operation.
- Wear appropriate safety glasses and gloves when handling cleaning solutions.

By following these guidelines, you can effectively utilize the aluminum foil test to maintain optimal cleaning performance and extend the life of your ultrasonic cleaner.

Issue date: 07/06/2024  
Mediwish  
Quality Assurance