



# SludgeHammer®

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## Model S-400/600

NSF/ANSI Standard #40

# Troubleshooting & Repair Manual

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# **SLUDGEHAMMER®**

## **TROUBLESHOOTING & REPAIR MANUAL**

The mechanical simplicity of the SludgeHammer makes it a particularly reliable treatment system, however, occasionally problems can arise that require troubleshooting and repair. The following manual discusses some of the most common issues likely to be encountered.

### **PROBLEM SYMPTOMS:**

#### **1. ODORS—**

Releases of obnoxious odors from the system are an indication that something is not working correctly.

#### **ITEMS TO CHECK—**

- A. Is air being delivered to the system?
  - Make sure air pump is running. If not, fix problem.
  - Detach air line from pump to see if air flow is normal.
  - If not, check diaphragms and replace if broken.
  - Check air line connections for leaks. Repair if necessary.
  
- B. Is the bacterial packet healthy and functional?
  - Pull packet and observe for healthy tan colored biofilm.
  - If packet is black, check with homeowner for information on whether chemotherapy, antibiotics are being used or whether foreign materials like paints or bleaches have entered system.
  - If problems are short-term, replace bacteria packet.
  - If long-term, install liquid bacterial dosing pump.
  
- C. Is there a sludge buildup in the system?
  - Use probe or sludge judge to test for sludge in tank.
  - Pump tank if necessary.
  - Remove SludgeHammer column and open bottom to check for sludge in unit. Clean if necessary and reinstall in tank.

## **2. AERATION PATTERN—**

A strong stream of liquid with fine bubbles should be circulating from the SludgeHammer® column.

### **ITEMS TO CHECK—**

- A. Are the bubbles small or large?
  - If large, remove SludgeHammer® unit and check for breaks in air diffuser tubing or other pipes and connections.
  
- B. Does air flow seem to be reduced?
  - If so, check air diffuser for clogging. Clean or replace if needed.
  - Check for leaks in air pipes.
  - Check air filter at top of aeration pump and clean if necessary.
  - Check to insure that ventilation of basin in which air pump is placed is sufficient and that nothing is obstructing air from entering.
  
- C. Did alarms work when air flow was cut off?
  - Test alarms by turning off air. Fix if alarm does not sound.

## **2. SLUDGE OR SCUM—**

Check depth of sludge layer in both chambers of tank.

If a sludge or scum layer of up to 12" forms within a one year period the tank should be pumped and then the system should be overhauled and cleaned. All plumbing attachments should be checked for leaks. The air pump should be checked for function.

