

## Well Cleaning

### Introduction

If a well is not properly maintained, one will eventually notice a creeping loss in productivity, often accompanied by an increase in bacteria count. Many of the bacteria frequently found in well water coat the well casing with slime (called “biofilm”), which contributes to the loss of productivity. The biofilm protects the bacteria from hostile environments, including offering protection against shock chlorination. The purpose of this flyer is to show that alternatives exist.



*These pictures show examples of the pump screen before cleaning (left) and after cleaning the well with Well Cleaning Solution (right). The pictures show different pumps.*

### Common Well Problems

- Increasing or at least persistent bacteria count (HTP, slime, iron bacteria)
- Scaling

### Preventative Maintenance

- Aquifer mapping
- Regular well water analyses (chemical and biological)
- Well cleaning and conditioning

### Cleaning and Disinfection Aspect

Well cleaning requires a slightly acidic solution - very much like the cleaning of the kettle from scale with dilute vinegar. PLEASE NOTE: Hypochlorite (bleach) must not be used under even slightly acidic conditions - DANGER OF CHLORINE GAS DEVELOPMENT! Because of this instability, commercial hypochlorite solutions (including bleach) are strongly alkaline. As a consequence, the commonly used shock chlorination causes the precipitation of lime (“hardness” of the water). This incrustation protects bacteria, resulting in a predictable re-infection.

Unlike hypochlorite (bleach), Well Cleaning Solution and Well Disinfection Solution work under acidic conditions, thus cleaning and disinfecting the well thoroughly.

# Well Cleaning



**The Well Cleaning solution** mainly cleans but also disinfects the well. This well cleaning solution should be used in severe cases of well scaling or loss of productivity. The well cleaning solution is always the first step before disinfection with the Well Disinfection Kit is applied.

## The procedure is as follows:

1. Use a hose (a garden hose will do the job) that you let down to the bottom of the well. Prime the hose with water and syphon the well cleaning solution through the hose to the bottom of the well. If the spacing in the well is sufficient to get the hose past the pump, you may leave the well pump in, so that it cleans at the same time. The solution will not visibly corrode stainless steel during the time in which it is applied.
2. Let the solution act for 1 - 2 hours, then flush it out with the well pump. This cleaning water usually contains then much of the scaling and bacteria "biofilm" of the well. This water must be wasted and is not suitable for use.
3. Use common sense when handling this or any other chemicals.
4. This process can be repeated if necessary.

**It is advisable to use our Well Disinfection Kit as the second and final step. Never mix inside or outside of the well the well cleaning solution with the disinfection solution!**



***Do you require additional information?***

***Can we give a presentation to YOUR council about our Well Cleaning and Disinfection Technology?***

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