



SAB Miller clarifier Tocancipa Brewery, Colombia

Description: Circular clarifiers
Diameter: 10-12 meter with radial channels

Problem Description: Summer 2012, SAB Miller, Colombia contacted LG Sound seeking a solution for the pertinent growth of filamentous algae in their drinking water process. The algae identified was suspended and growing on walls and water channels of the clarifiers. Thus, reducing process efficiency and severely increasing the cleaning efforts of the plant.

Drinking Water

Before treatment

Before the installation of the **LG Sonic** equipment, we evaluated the tasks carried out normally to clean the clarifiers:

1. Two workers (fig.2) equipped with brushes spend 3 hours cleaning one complete clarifier. For safety reasons, the operators are required to use harness during the procedure which is repeated every 4 weeks.
2. Operators apply several times pure Hydrogen Chloride (HCl) directly on the walls and channels to get rid of the embedded algae.



Figure 2:
Operators cleaning the 2 clarifies prior the treatment with LG Sonic.

After treatment

Upon start of the installation, one clarifier was kept untreated and the other one was equipped with two **LG Sonic e-Line**. During one month, pictures (fig.3) were taken and right after the next cleaning, we interviewed the cleaning team. The workers stated: "it was much easier to clean the clarifier and we didn't need to dose chemicals at all because the dead algae was easy to remove with pressurized water". As shown in the pictures below, the difference is evident and after 4 weeks of treatment, the **LG Sonic e-Line** proved to be the right equipment for controlling attached filamentous algae.



Figure 3: Clarifiers after 4 weeks trial

Summary of results

- Reduction of filamentous algae growth.
- No need to dosify HCl, during maintenance works.
- Less time required for the maintenance and substantial improvement of safety conditions for workers
- Reduction of bio-corrosion on the clarifiers' walls caused by attached algae.