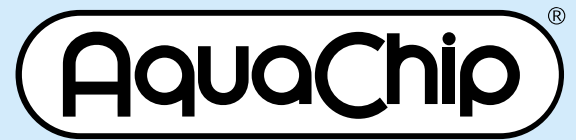


# Algae Preventer for Photographic Waterbaths



**The new Algae Preventer for Photographic Waterbaths ensures greater production reliability, eliminates unnecessary work and reduces maintenance costs of film processors.**

Many radiologists are familiar with the persistent and troublesome problem of dark patches on X-ray film caused by algae and other cultures that grow in the waterbaths of film processors.

Previous solutions such as manual control with standard liquid anti-algae agents were either too complicated, simply ineffective, or became too costly when using expensive dosage equipment.

Until now, the only alternative was constant, time-consuming manual cleaning of the waterbath with brush and sponge.



All this is now obsolete. AquaChip® GmbH of Urbach / Ww, Germany, has developed a miniature dosage system which can solve the algae problem reliably and inexpensively.

## **How does algae get into the waterbath of film processors?**

They are "carried along" as spores by normal tap water. These spores require nutrients and a moist environment for their growth. Together with the existing process heat, the gelatine particles and chemical residue released by film coating during the film-watering stage provide ideal conditions for spore growth.

The reproduction of these unicellular organisms is not dependent on the presence of light, and photosynthesis (such as that which affects the green plants in our garden) does not occur. This unpleasant slime is therefore not green colored, as e.g. in an aquarium, but instead remains a dirty white. What occurs here is a natural biological process that takes place in all film processors.

As a result of this constant growth, "wavy" patches of algae sometimes appear in the water. These patches are picked up by the film, pressed onto the surface of the film by the rollers in the dryer, and finally bonded to the film's soft gelatine coating by the hot-air stream of the dryer.

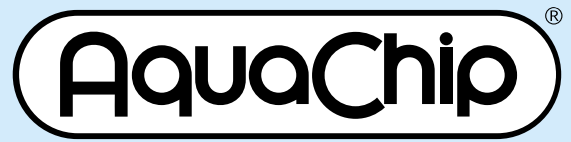
Film soiled in this manner can only be saved by thorough manual rinsing and washing.

Manual cleaning of the water tank and transport racks is only effective if a time consuming and thorough purification is performed. This involves a loss of production.

Even the slightest algae residue left over after the cleaning can quickly develop into the above described slimy patches when the waterbath is refilled and the processor restarted.

The same trouble hereby starts all over again, until the next cleaning.

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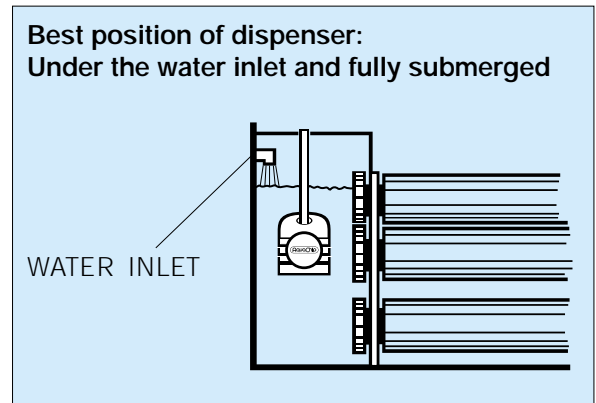
## How does the Algae Preventer for Photographic Waterbaths function?

To begin with, the entire water tank has to be cleaned thoroughly. The "Algae Preventer" inhibits the continued growth of algae, but is not designed to exterminate large amounts of algae. When the water tank has been cleaned, the dosage dispenser is placed into a well-agitated zone of the water tank (best directly under or near the water inlet; see illustration).

The dispenser should be kept submerged at all times. The waterbath should not be drained while the dispenser is present; even if the machine is idle.

The dosage of the active agents is automatic. The dispenser usually needs only to be exchanged after two to three weeks, depending on the water quality, water consumption and, of course, on the operating hours of the film processor.

**There are no maintenance or installation costs !!!**



Today, good environmental compatibility should be an indispensable consideration for all products, not only in diagnostic radiology. The active substances of the "Algae Preventer" are biodegradable and have been used, in different chemical composition, for decades in the treatment of drinking water. The German Environmental Protection Authorities have classified the "Algae Preventer" as not requiring special registration.

In long-term tests, no negative affects on b/w materials have been observed. This shows that the "Algae Preventer" is excellently suited for use in processing X-ray film.

Leading manufacturers of film processors recommend the "Algae Preventer" as the best and cheapest solution to the algae problem, currently on the market.

In the graphic arts and photo lab industries, the "Algae Preventer" has been successfully used for many years to cut maintenance costs of film processors.

## The use of "Algae Preventer" is also particularly interesting in terms of economics.

In view of the extremely high costs involved in running a radiological department, it is crucial that the outlay for cleaning film processors be reduced to a minimum and the savings be invested in other, more urgent sectors. The "Algae Preventer" makes that possible.

In practice, it can be assumed that the waterbath of a film processor has to be cleaned at least once a week to guarantee a smooth, proper and trouble-free development of film.

**Assuming an implicit hourly rate of £ 50 per hour, a thorough 30-minute weekly cleaning would thus cost at least £ 25 per week.** This amount does not even take into account the loss of production time and the time consuming manual washing of film.

**In comparison, the use of AquaChip's "Algae Preventer", at an average of £ 1,80 per week, is a clear winner and also offers higher production reliability.**

Of course one could also pass the cleaning work on to an outside maintenance company, however this would only mean shifting the cleaning costs and would inevitably lead to more expensive maintenance contracts.