

Gilbert & Jones Co. Inc. 35 Peter Court New Britain, CT 06051 1-800-577-2962

PRO-pHx Application Guidelines

First Application:

Application Is Simple; Add PRO-pHx to Pickling Acid or Acid Strips and Filter.

Treatment requires approximately a 1% ratio of *PRO-pHx* to the acid bath. Filtration is required for successful results. Filtration requirements may vary from 1 to 50 micron, with 5 and 10 micron being used most often. When treating contaminated acids with *PRO-pHx* a foam or gel film may form on the surface. This means the reaction is occurring as expected. It will dissipate over the first hours of treatment and effective filtration will remove this from the treated acid. Once the acids are restored to their optimum range of a 2 to 3 day old acid bath, this will not reoccur unless large amounts of organics are reintroduced into the treated bath. Filtration removes the impurities. There is no reason to stop the production line while filtering; this reaction will have no adverse reaction on the end result plating quality. You will become familiar with the behavior of the treated acids after a few weeks and recognize the various changes from your production process. To date we have not had a treated bath fail when suggested maintenance is followed. The quality of your plating results will be optimum because the pickling step will provide the consistency and strength of a 2 to 3 day old acid.

Spike Acids Weekly:

Maintenance Requires On-Going Acid Spikes.

The adds of fresh acid are normally necessary to replace the acid lost through drag out and evaporation during production. It is also necessary to maintain treated acids at optimum acid strength. You will find each time you add fresh acid to the treated bath, the filter residue will be greater than before the acid spike.

No Down Time:

Treated Acids May Be Used Immediately Upon Treatment.

No down time is required. Filter treated acids. Even if the treated acid has a small amount of foam or a film on the bath surface, it has no adverse effect on the plating production. It rinses off during the rinse cycle and is not carried down line to the plating tank. (See the FAQ - Frequently Asked Questions found under the TECHNICAL section.) Effective filtration will remove the foam or film from the surface of the acid bath.

The more contaminated a used acid is, the more filter cake will be caught by the filtration. If you are spiking acids weekly, you will notice the filter captures larger volumes of filter cake or sludge after the fresh spike of acid. If your filtration is not pulling the usual amount of sludge, this is often an indication the treated acid requires a small amount of fresh acid. If you spike the acid and no residue is captured on the filter then add additional *PRO-pHx*.

All PRO - pHx Additions After The First Application:

The First Application of PRO-pHx Is At 1% but All Subsequent Treatments Will be At Only 1/2 %.

If you keep track of your acid spikes, the bath should be able to have between 1/3 and 1/2 the acid bath volume added back in acid spikes before you add additional *PRO-pHx*. Adding *PRO-pHx* back at 1/2% then returns the diluted acid bath (diluted by acid spikes) to the effective treatment range of 1% and will provide months of additional use before the next application is required. *PRO-pHx* is an effective treatment in the range of 1/2% but the effectiveness falls off below that. Effective treatment for acid ranges between 1% down to 1/2%. You will not have to dispose of contaminated acid again, as long as you treat and maintain the acid bath as directed.



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Maintenance Shortcut: Treat - Spike - Filter

A Simple Maintenance "Rule of Thumb" Is To: Spike Acids Weekly, Add PRO-pHx Monthly and Filter Regularly

Spike Acids Weekly -

In general, acid spiking requires 6% to 10 % of new acid each month.

Take this number and divide by 4 and spike weekly.

Add PRO - pHx Monthly -

Once the first treatment *PRO-pHx* has been introduced into the acid bath at 1%, you might try adding *PRO-pHx* monthly, at two tenths of one percent (0.2%) to the total bath volume. Add this once a month for ongoing maintenance. This is a general range of additional *PRO-pHx* treatment requirement over a year. (See Preventative Maintenance under the TECHNICAL section.)

Filter Regularly -

If you are currently disposing of your bath each 1 - 3 months, you may only require filtration a few hours a day or each week. If you are disposing of your bath every few days or weekly, you will need to filter more often, perhaps continuously during production. Many companies use a single filter and share it between several acid baths. Larger baths or more dangerous acids (such as hydrofluoric) may require more technical solutions for filtration.

Do not over-treat acids with *PRO pHx* adding more *PRO pHx* will not increase the results. More is NOT better. Acids will jell if *PRO pHx* is added in the range of 10 % ratio to acid.

PRO-pHx IS WATER SOLUBLE & CONTAINS NO OILS OR SOLVENTS.

PRO-pHx IS INORGANIC, NON-TOXIC, ODORLESS AND HAS NO FUMES OR OUT-GASSING

NON - TOXIC • NON - FLAMMABLE • NON - ACID • NON - HAZARDOUS

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