



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

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## FAQ

### ANSWERS TO OUR MOST FREQUENTLY ASKED QUESTIONS

#### *Are You A First Time PRO - pHx User?*

*Here are a few tips along with the answers to our most Frequently Asked Questions.*

*March, 2003*

- Add **PRO - pHx** at 1 % to acid solution and filter.
- **PRO - pHx** may not be effective at concentrations considerably below 0.5 % (One Half Percent).
- Titrate the bath to strength (an acid “spike”) at least weekly. Do not add water to a **PRO - pHx** treated acid bath without first titrating to calculate the proper amount of acid and/or water required for proper acid strength. Do titrate the acid bath to target acid strength regularly and maintain **PRO - pHx** at 1% to the total bath volume.
- In most circumstances the evaporation and drag out rates will exceed the volume of acid required for spike back. This provides the space in the tank for the acid spike. If this does not occur, check to see if operators are adding water to the tank. Dilution of acids and of **PRO - pHx** maintained in the bath may also occur if the pre-rinse drag in is not accounted for. This may be an issue with barrel plating. It may be necessary to adjust the dwell time over the pre acid rinse to be longer than the dwell time over the acid tank to provide the space in the tank to spike the acid.
- Spiking the acid bath regularly (at least weekly) is necessary to maintain strong and clean acids. A very small amount of acid seems to reactivate the filterable results and maintains acids at optimum effectiveness. Titrate acid to strength.
- Monitor tank to determine if the tank can have scheduled acids spikes, I.E. 10 G of acid each 3 days, each 5 days or each 10 days. It is easier to calculate how quickly the **PRO - pHx** treatment is being consumed, if you can easily calculate the gallons of acid being spiked back into the tank.
- Add **PRO - pHx** weekly or monthly to equal 1% of the total acid and water total spiked or introduced into the acid bath. This returns the total **PRO - pHx** treatment strength to 1 %. Maintain **PRO - pHx** in the tank in the effective range of 1% (down to 1/2%) to the total tank volume of acid and water in the bath.
- Effective filtration is imperative. Find the filter size for your needs. The micron size needed can vary from 1 micron to 75 micron with different metals compositions. We see 10 micron being used most often, however, filtration requirements will vary. Your filtration requirements may vary. A single metal being shed into the acid may require 1 to 5 micron filtration. If the filter clogs immediately, then use a larger size micron. If the filter is not building a filter cake, then the filter size may be too large. Once a contaminated acid is treated with **PRO - pHx** and filtered clean, you may want to use a smaller micron for even cleaner acids. Determining the optimum filtration may take a little experimentation.
- Continuous filtration is highly recommended but not a necessity. **PRO - pHx** is a time lapsed reaction. Most results will not be seen for 1 to 3 days after adding **PRO - pHx**. Metals dissolved today are most likely being filtered from the acid in 2 to 3 days - not today. Organics may show a reaction within the first hours of treatment. Filter as necessary to maintain the acid bath as a productive acid. (See Filtration Tips for additional information.)
- Filter cake can vary from a paste to a gel and can vary in color from black to white and the texture may vary from granular to a thick sludge, depending on the contaminants removed and the volume of organics in the acid.
- If the filtration has been building a thick cake and this cake thins down without any major change in the production flow, try spiking a small amount of acid to the tank. This often reactivates the filtration performance of the treated acid. If this yields no results, then check to see if **PRO - pHx** in the 1% range.



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- Mechanical or air agitation is not necessary but seems to be of some assistance. Avoid severe agitation as it may create a surface foam.
- The **PRO - pHx** treated acid bath will normally appear as a 2 to 4 days old acid bath depending on your frequency of filtration and micron size used. **PRO - pHx** will not restore contaminated acids to unused, new acid; **PRO - pHx** treatment and ongoing maintenance will restore contaminated acids to similar to a 2 - 4 day old acid strength and purity
- If the treated acid is not remaining strong and clear, check to see if the operators are adding water to the treated tanks (topping off the tanks with water); titrate the acid to strength; check the filtration, the micron size may be too large for proper cleaning. If filtering with a 25 micron, drop down to a 5 or 10 micron filter. If the filter has previously been working fine and building a filter cake but the filter cake drops off, try spiking a small amount of acid to the tank. This often reactivates the treated acid and a filter cake builds on the filter again. Maintain **PRO - pHx** in the 1% treatment range to the total tank volume of acid and water.
- Organics that sometime float to the surface of the acid rinse off easily and to date have not caused a down line plating problem. They may appear as a thin film, jell or foam. This filters out of the bath with no adverse effects on plating results.
- Small amounts of **PRO - pHx** may make their way to the plating tank through drag out and have no effect whatsoever on plating quality or bath titrations. In fact, some companies treat their rinse waters with One Quarter of One Percent (0.025) **PRO - pHx** to total water volume and close loop recycle the rinse waters. This requires simple filtration and a small pH adjustment (from 6.5 to 7.5 pH). One customer has been recycling their **PRO - pHx** treated water for 18 months as of 4/03. Contact us if you'd like more information about wastewater treatment.
- In all production operations to this point **PRO - pHx** has removed every type of organics and metals encountered in solution. Do not add **PRO - pHx** to an acid bath containing friendly metals or organics such as Zinc Chromates.
- **PRO pHx** is non-toxic. No gassing occurs and no odor is evident when using **PRO - pHx**.

We Welcome Your Questions, Comments and Experiences Concerning **PRO - pHx**

**EXCLUSIVE DISTRIBUTOR IN**

New England, New York, and New Jersey



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