

AMPLA GALVANO DO BRASIL



AGB



PRO-pHx

Acid Life Extender



Ampla Galvano Do Brasil

Luis Motta, President

Whats App: 55.48.99177.4614 Email: agb_rs@hotmail.com

**Rua Quilombo dos Palmares 41, Pontas das Canas, Florianópolis, CEP: 88056-740
Brasil**

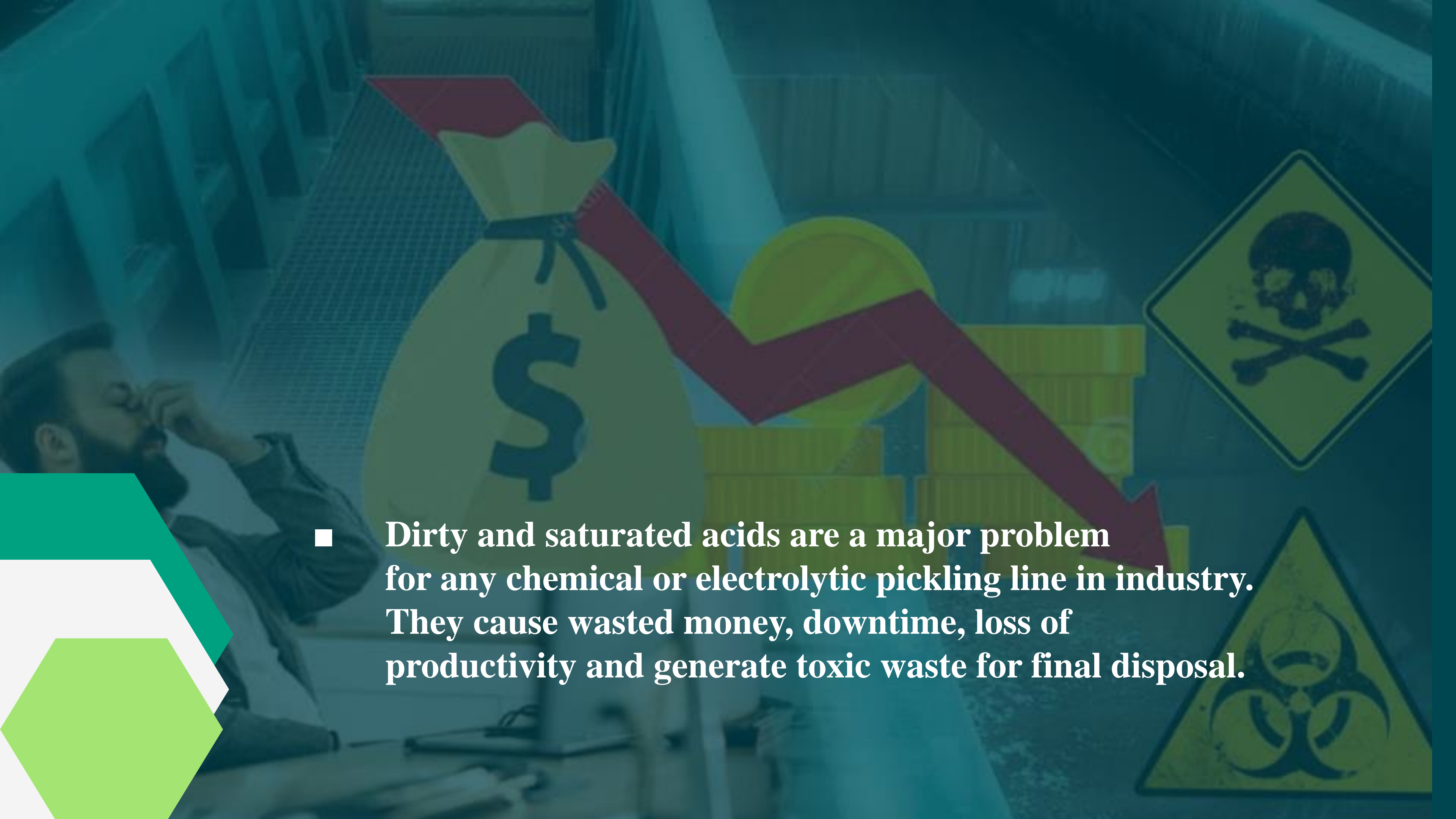




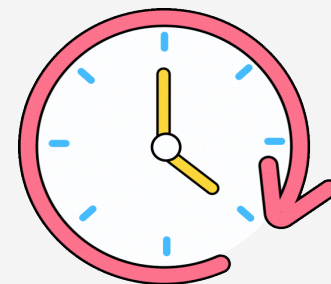
- **Dirty acids, saturated with metals and organic products, are currently a great global problem for companies and for the environment.**



- **Generating solid or liquid wastes pollutants for final disposal is a worldwide concern.**
- **With *PRO-pHx* & filtration no production stoppage is required and no acid disposal occurs.**

- 
- **Dirty and saturated acids are a major problem for any chemical or electrolytic pickling line in industry. They cause wasted money, downtime, loss of productivity and generate toxic waste for final disposal.**

- ***PRO-pHx* continuing to react in a 4 year old acid, being used 16 hours daily.**
- **The acid solution becomes clean, transparent and continues its operational potential.**
- ***PRO-pHx* applied to production line acids with metals and organics saturation, produces a noticeable reaction in minutes.**



- ***PRO-pHx* is a catalytic reagent and the reaction transforms dissolved metals (soluble state) into one (insoluble state) that will be easily removed by continuous filtration.**

- **Observe the immediate reaction of *PRO-pHx* in contact with metallic residues and organic compounds in the acid solution.**





- The acid may vary in color, but it will always be clean, transparent and free of dirt.



- Acid solution with *PRO-pHx* operating with a conventional filtration unit.

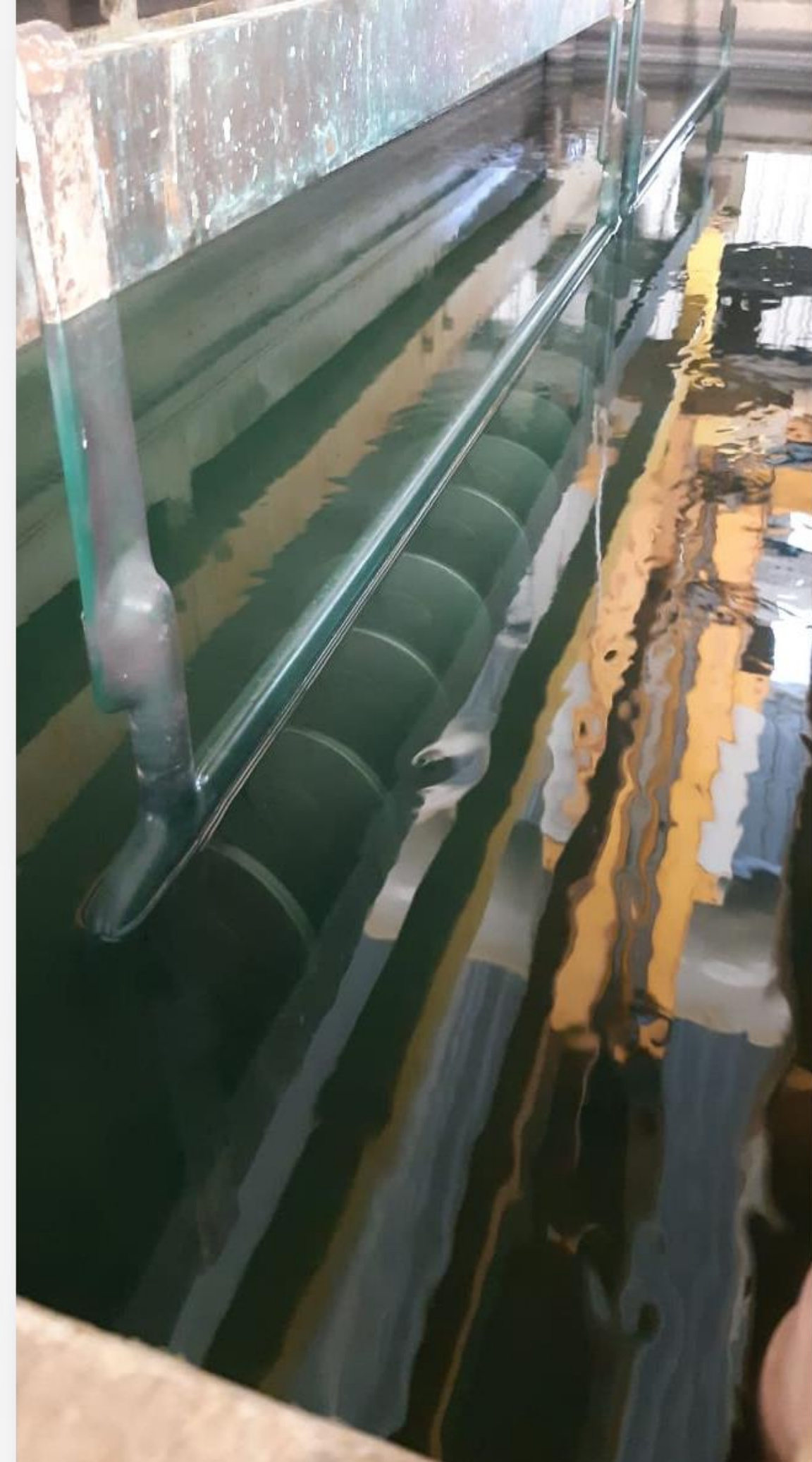
- Observe the filter element retaining the residue, which is generated by the action of *PRO-pHx* on metals and organic compounds in the acid solution.



Automatic Filtration Unit



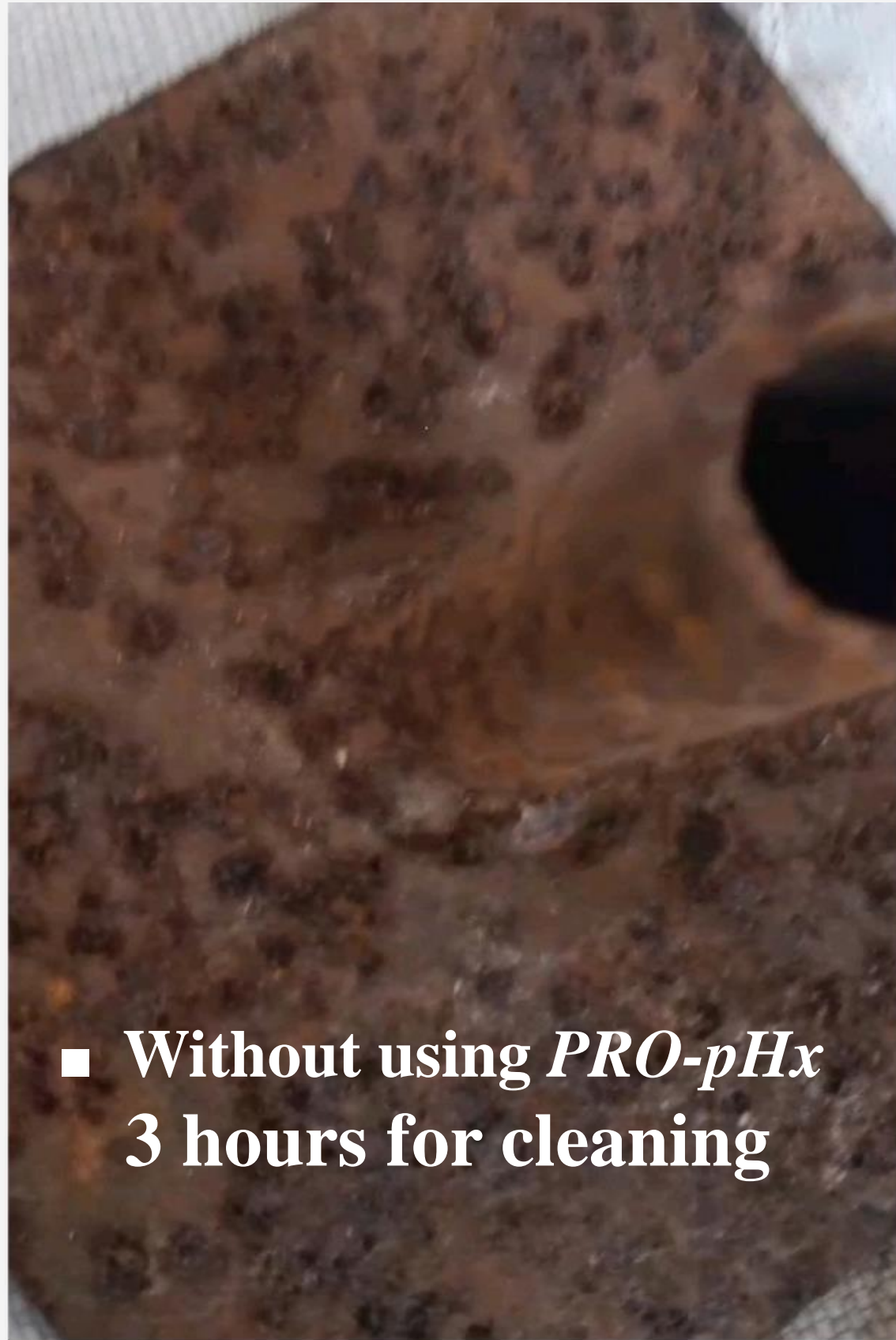
Conventional Filtration Unit



- **Using *PRO-pHx* with continuous filtration, your acid solution will always be clean, free of organic compounds (oils, greases, chelators, etc.) and will maintain low levels of metal residues!**



Using *pHx* 45 to 60 minutes for cleaning



- Without using *PRO-pHx* 3 hours for cleaning

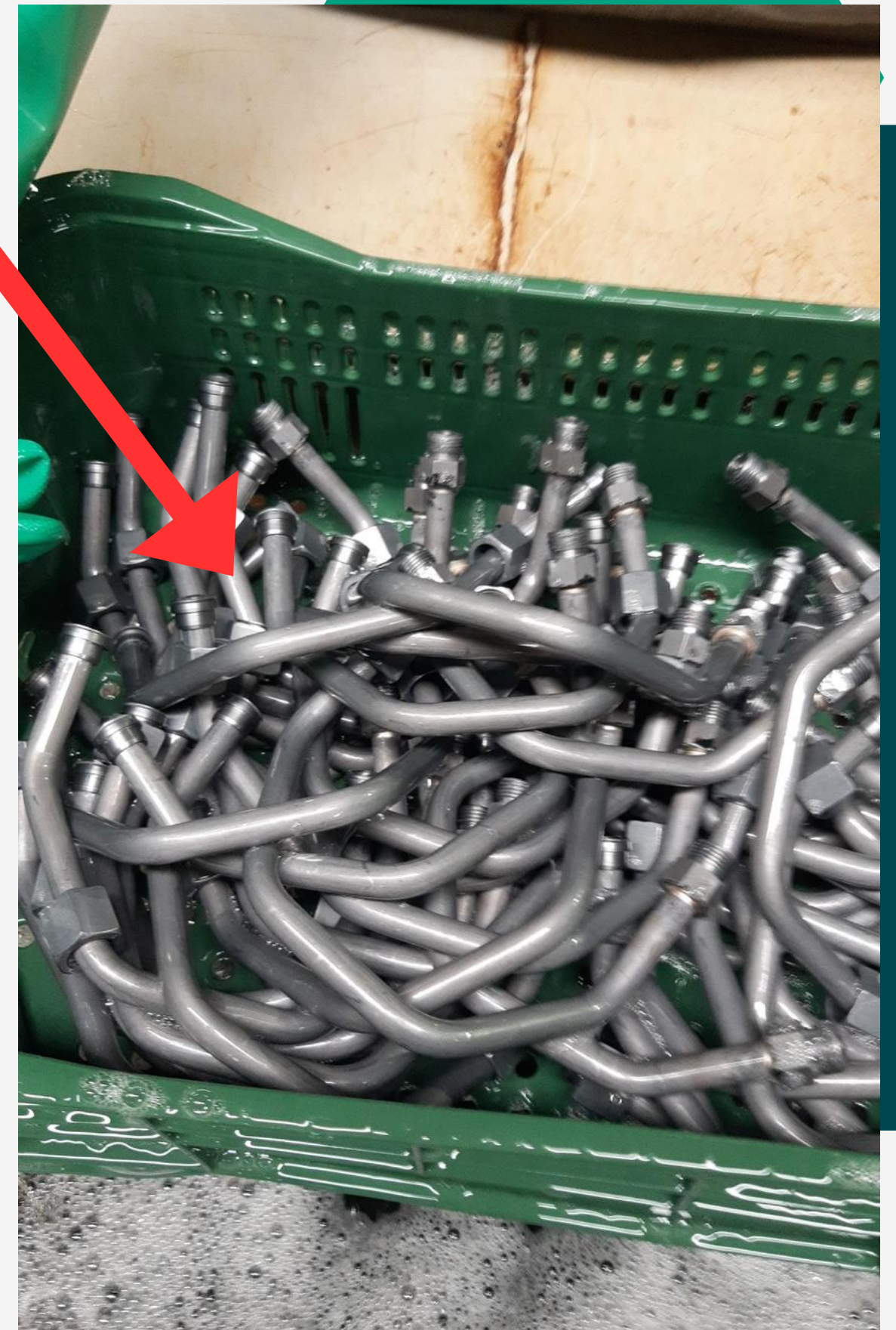
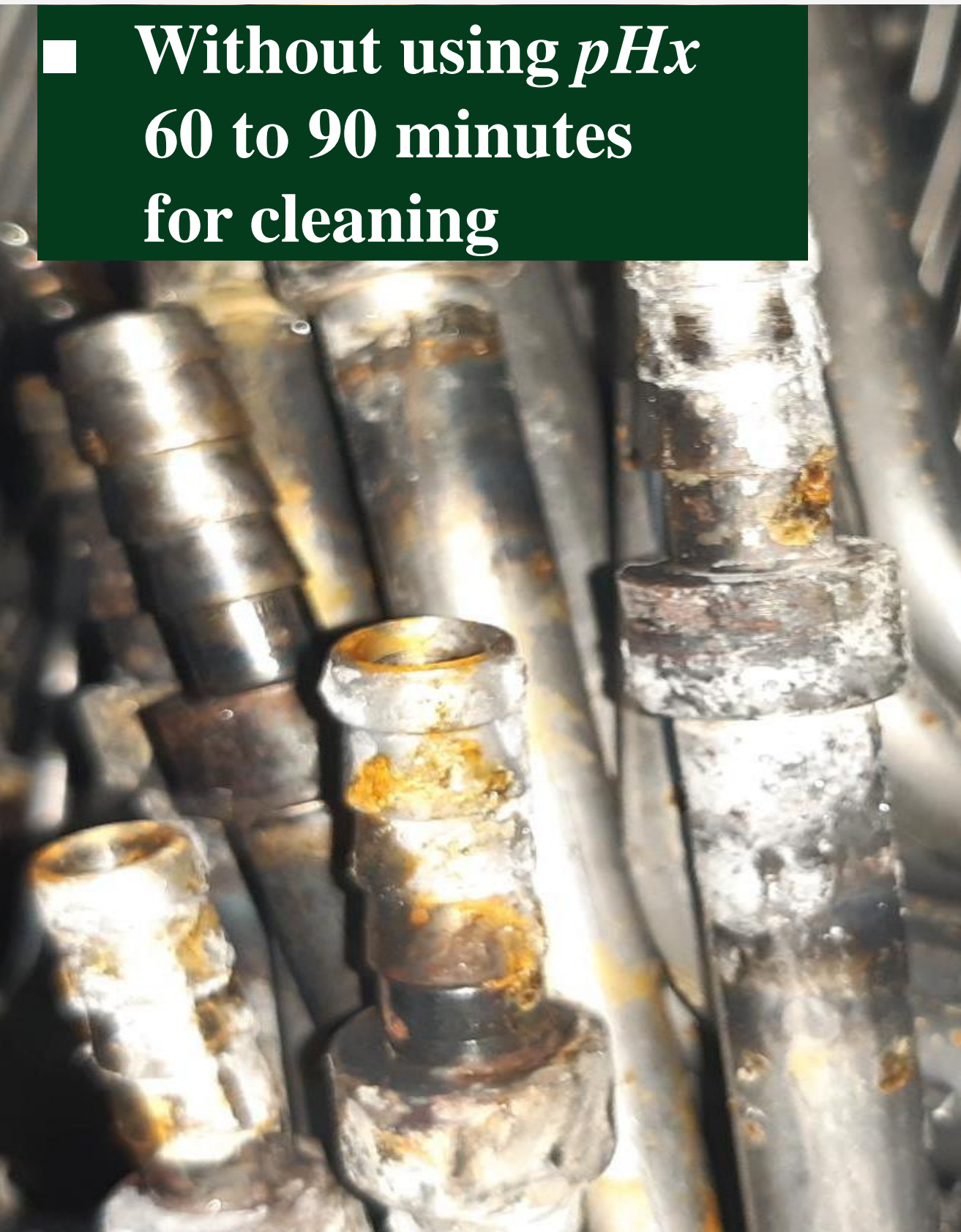


Using *pHx* 20 to 35 minutes

for cleaning



- Without using *pHx* 60 to 90 minutes for cleaning



Using *pHx* 7 to 10 minutes
for cleaning.



- Without using *pHx* 15 to 20 minutes for cleaning



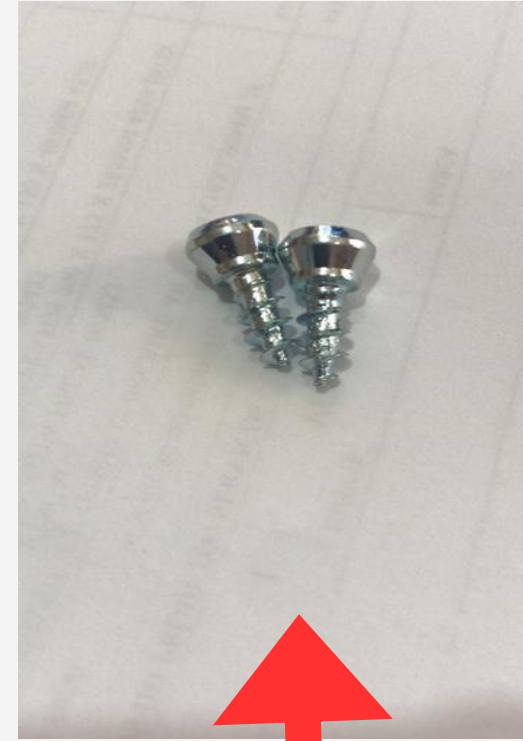
Using *pHx* 5 of 35 minutes for cleaning

- Without using *pHx* 10 to 60 minutes for cleaning





- ***PRO-pHx* with filtration gives you clean, strong acids, creating continuous stability during pickling time and increasing productivity.**
 - **16 hours of work per day on the production line shown.**
 - **Zero total acid tank discards.**
 - **Zero acid tank decants.**
 - **No production stops for tank cleaning.**
 - **No sludge created in the tank bottom.**
 - **This acid solution has 4 years of use & will continue, indefinitely.**



■ **Multiple Finishes: Electropolished stainless steel - Zinc electroplated.**
Acid pickled materials using *PRO-pHx* and continuous filtration.
Zero rework.



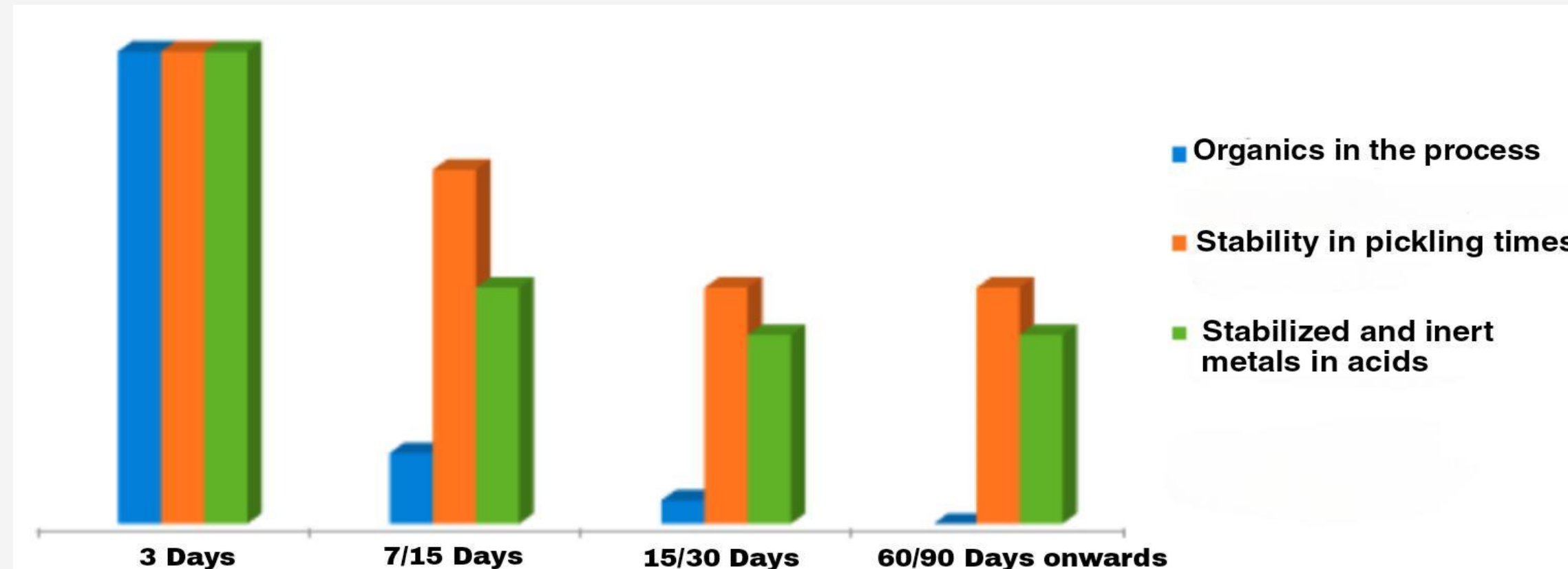
Data collected at Zincost / RS – Brazil

RE: *PRO-pHx* user since October, 2020

Usage time reflected in graph: 42 months

Hours: 16 hours of operation daily

Processed material: Outsourcing service (materials with different sizes and geometries)



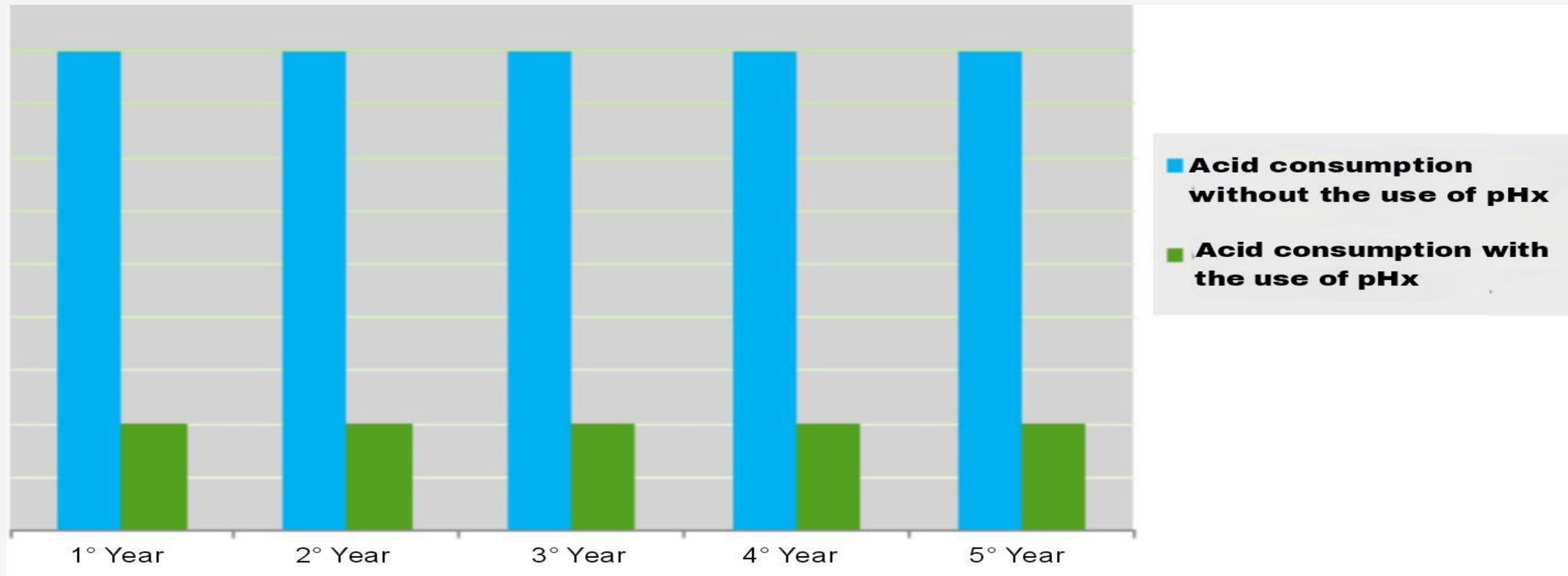
Looking at the graph above, the longer the *PRO-pHx* chemistry is used in acids with continuous filtration, the greater the benefits in the process and the lower the costs in cleaning the parts.

- The organics are completely removed over time without interfering with the cleaning of the parts.
- Creates stability and consistency in pickling times, which increases productivity.
- The metals are not kept at zero in the process, but are stabilized in a range between 4% and 8%, becoming filterable in the acid solution and not interfering with the pickling process of the parts.

■ Data from Zincost/RS – Brazil

A current *PRO-pHx* user since October, 2020.

Graph reflects first 42 months of useage.

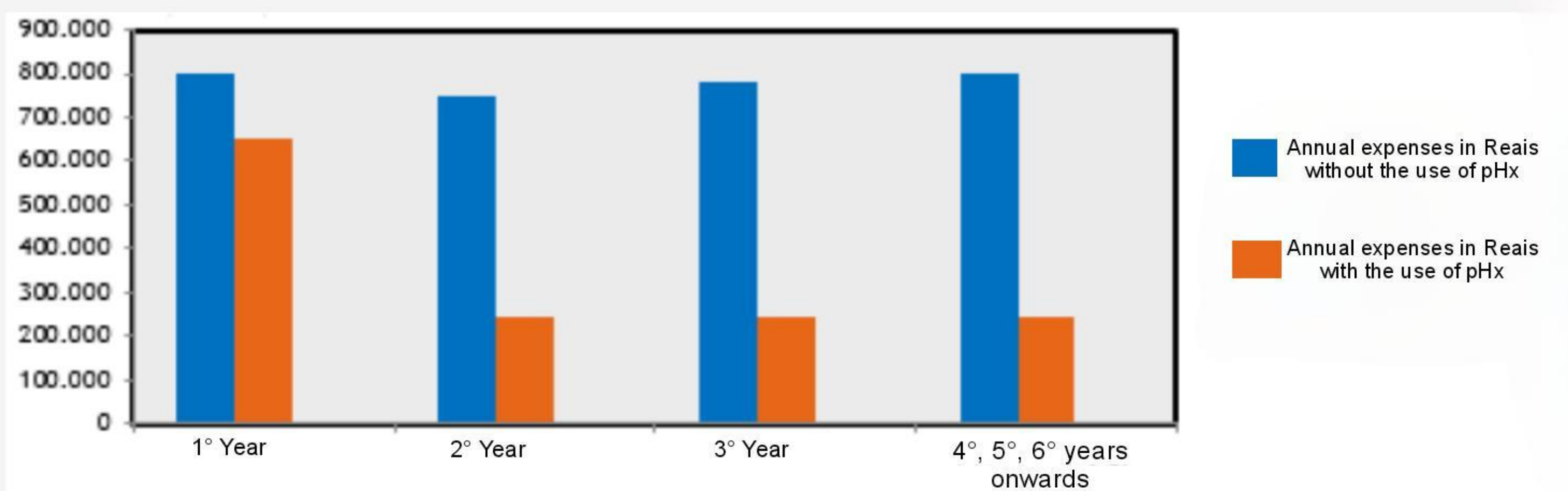


- Annual consumption of acid without the use of *PRO-pHx* chemistry remains high & constant.
 - With *PRO-pHx*, Zincost reported a large reduction in the consumption of new acids.
- Without any acid disposal and without acid decanting, costs are reduced saving 80% or more in the purchase of new acids.

■ Data from Zincost/RS – Brazil

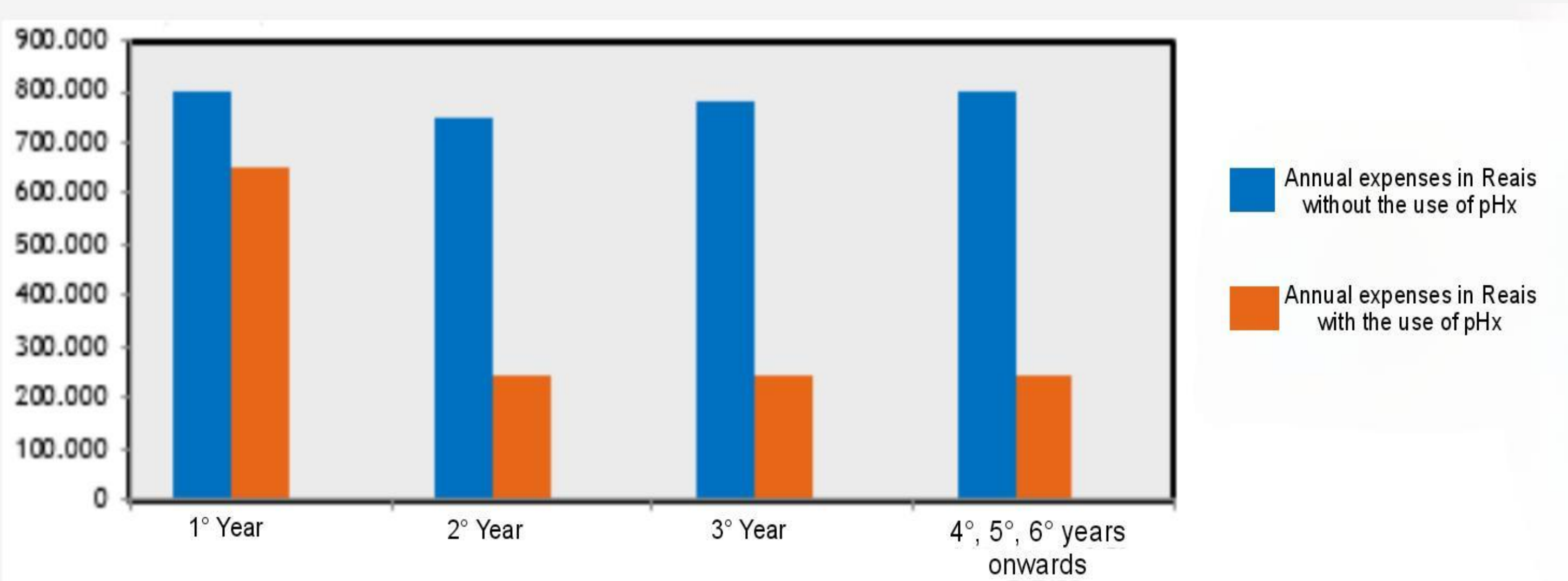
A current *PRO-pHx* user since October, 2020.

Graph reflects first 42 months of useage.



- In blue, the costs without the use of *pHx* tend to remain high. The higher the production, the higher the costs of acids and the greater generation of waste for disposal. In addition there are production stoppages to change acids and other items already mentioned.
- The 1st year cost reduction is small because the expense of the filtration unit and the initial cost of *PRO-pHx* makeup are almost equal, however, the results are quickly make a positive difference. Zero acid discards and zero sludge stored at the bottom of the tanks creates a Win-Win.

■ **Data from Zincost / RS – Brazil**
Current *PRO-pHx* user since October, 2020.



***PRO-pHx* will reduce a large percentage of waste disposal generated by weight and by volume.**

- **The only material for disposal will be what is retained in the filtration element.**
This will be between 5% and 25% of the total volume and weight, currently generated.
From the 2nd year all savings increase (without the cost of the filter pump and without spending on the initial *PRO-pHx* tank makeup).

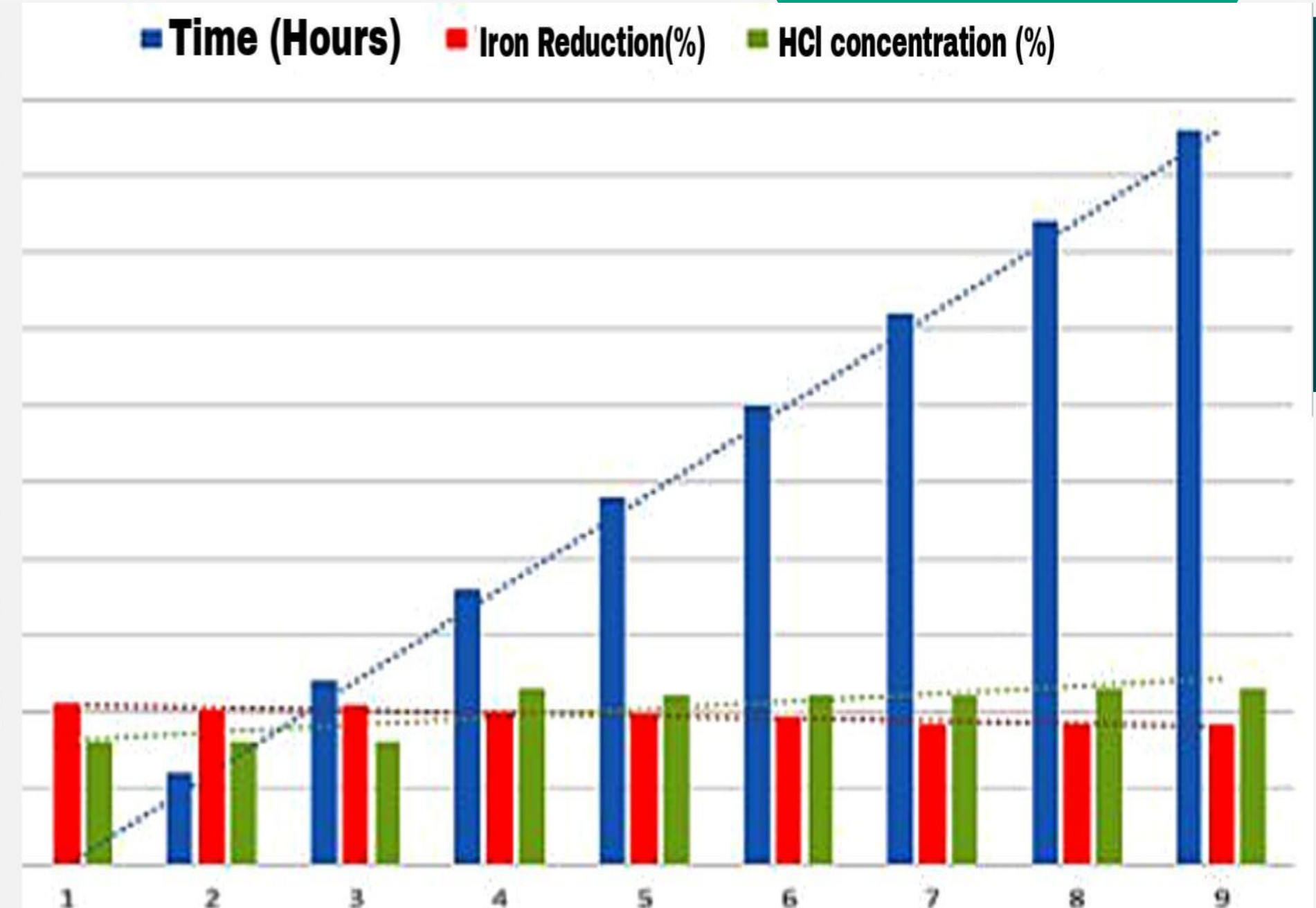
Companies using *PRO-pHx* will have their expenses reduced greatly in the áreas of new acids purchased and in the generation of final toxic waste for disposal.

Company: Ciser Fixers Joinville / SC – Brazil

Test Time: In this chart - 5 days

The acid solution used for the test had 220 g/L of iron

- It is possible to observe in this graph, that as the filtration time increases, the iron content tends to decrease.
- Iron reduction was 12.9% during the 5 day trial period.
- The acid concentration had a small decrease, as a consequence of the drag out of the acid solution by the filter elements. After correcting the loss of liquids drug out by the filters, the concentration stabilized.



Final Considerations

- ***PRO-pHx* Acid Life Extender** leaves your acids clean, free of organic compounds (oils, fats, greases, chelators, etc.) and low in metals.
- The pickling reaction is carried out without as much interference of free metal contaminants in the acid (iron and others). This leaves stable and constant pickling times.
- Eliminates the need for periodic decanting for metals control, eliminating the total disposal of acids and sludge formed at the bottom of the pickling tanks, without loss of productivity.
- Zero waste of your acid solutions due to saturation of metals and organics.
- Reduces odors and harmful gases in the environment, preserving the health of employees and respecting the environment.
- Reduces odors and the generation of corrosive gases, helping to preserve

Final Considerations

- **Rinse Water:** Will be free of heavy dirt, increasing its useful life and reducing its discards.
- **Flux:** Less iron carryover will reduce the volume of flux treatments that require iron removal.
- **Zinc Vat:** With the reduction of iron carryover, the consumption of metallic zinc can be reduced. Each company must carry out its own studies to confirm specifics of this item.
- ***PRO-pHx*** helps in cleaning parts, leaving acids free of oils and fats, breaking their molecules, eliminating them during continuous filtration.
- Eliminates the negative action of oils and greases in the parts cleaning process.
- ***PRO-pHx*** treated acids will never be free of metals because the contamination generation process (permanent pickling) is always running. The ***PRO-pHx*** will solidify the (free) metals left in the pickling tank, rendering them inert and filterable, without interfering with the reaction of the acid in cleaning the parts.
- Another great benefit of using ***PRO-pHx*** is the large reduction in the volume of toxic waste for final disposal. The waste will only be what is removed by the filtration. This will generate a maximum of between 5% and 25% of the total volume and weight, formerly generated by facilities requiring pickling, passivation, electropolishing, activation, cleaning or stripping.

Final Considerations

- ***PRO-pHx* is an ecological, clean and intelligent solution to treat your acids and reduce your toxic, dangerous and polluting chemical residues.**
- ***PRO-pHx* is an environmentally sustainable solution that solves a series of environmental problems as it avoids contamination by eliminating it at the generating source. (the acids).**
- ***PRO-pHx* provides a quick response in the short term to reduce the high costs of treating saturated acids in your WWTP. This eliminates the purchase of large quantities of new acids and acid neutralizers (caustic soda, lime or lye).**
- **Reduces Total Suspended Solids (TSS) and Dissolved Solids (TDS) carried from acid baths to rinse waters and other process tanks.**
- **It can be used in all types of acids, such as:**
- **Hydrochloric, Sulfuric, Phosphoric, Citric, Nitric, Phosphoric, Acetic and acid combinations.**
- **Effective in controlling buildup of the following metals:**
- **Iron, Zinc, Copper, Nickel, Silver, Aluminum, Chrome and many others.**



- **Central Sales Desk: Street Quilombo dos Palmares, 41
Neighborhood: Ponta das Canas
Florianópolis / SC
Brasil
Postal Code: 88056740**
- **Commercial Technical Director: Luis Motta
Telephone whats: 55.48.99177.4614 / 99125.4612
E-mail: agb_rs@hotmail.com**

[Linkedin.com/in/agb-ampla-galvano-do-brasil-agb-3b427a80](https://www.linkedin.com/in/agb-ampla-galvano-do-brasil-agb-3b427a80)

- **Exclusive Distributor for Brazil and South America.
PRO-pHx Acid Life Extender
Decarb 2**
- **Exclusive Representative Brazil and South America.
FISIL. PA Complete equipment for hot-dip galvanizing
Global Filtration Automated Filtration Units**