

SERFILCO® CASE HISTORY

SERFILCO TITAN

"THE BEST THING WE EVER BOUGHT HERE"



Entrance to Pickens Plating, Albion, Michigan



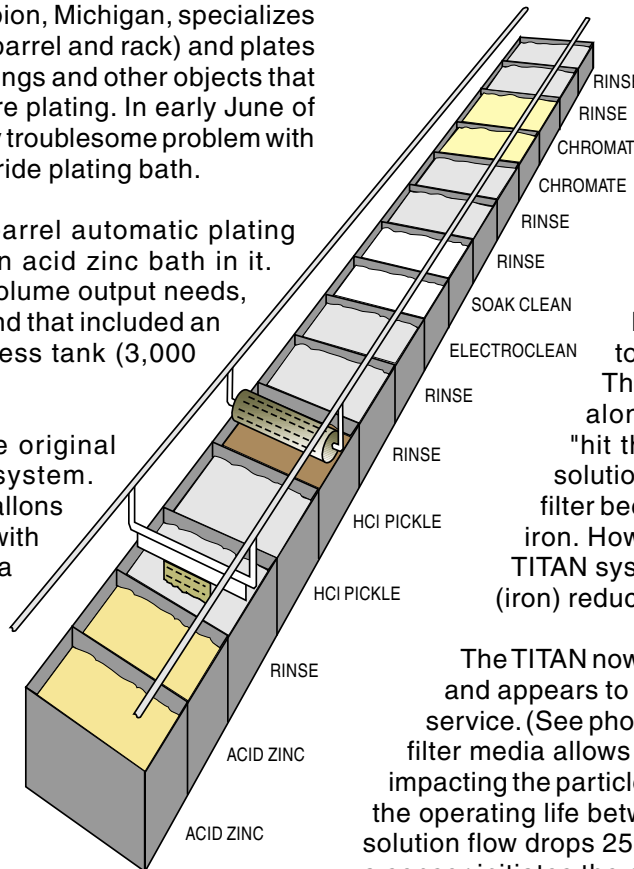
TITAN appears brand new after months of service

Pickens Plating, located in Albion, Michigan, specializes in zinc chloride plating (both barrel and rack) and plates nuts, nails, bolts, caster bushings and other objects that are difficult to get clean before plating. In early June of 2000, they had an increasingly troublesome problem with the filtration of their zinc chloride plating bath.

They had a Jessup return barrel automatic plating machine with a 1,500 gallon acid zinc bath in it. Because of their increased volume output needs, they extended the machine and that included an additional 1,500 gallon process tank (3,000 gallons total).

The filter being used on the original machine was a small disc system. When the additional 1,500 gallons of zinc chloride were added with the extension, they added a "swimming pool type filter" (small, with diatomaceous earth retaining baffles), but they were "shoveling sand against the wind"! They had to clean the filters 4 or 5 times a day.

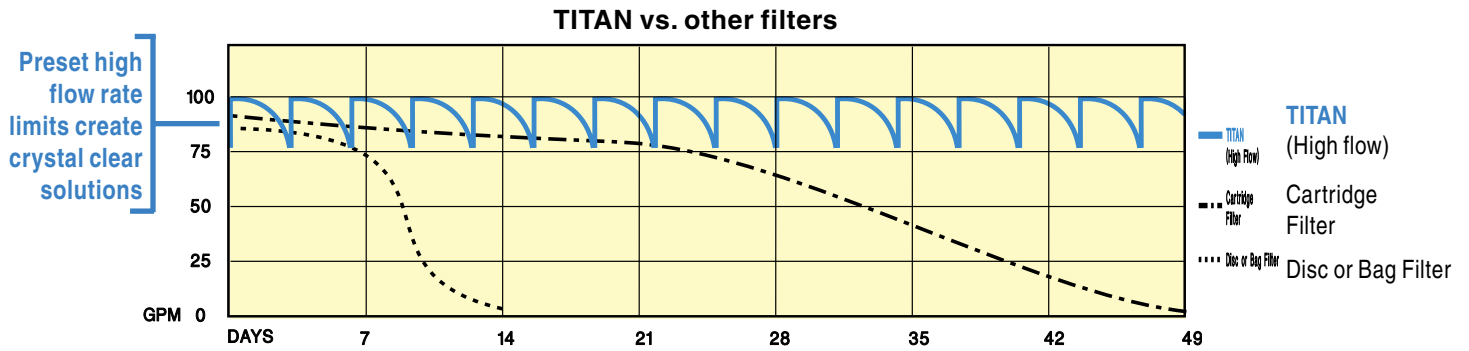
Needless to say, Terry Adkins, the plant manager, and Gary Christener, plating supervisor, were looking for a cost effective answer. They thought they found the answer in a SERFILCO advertisement in one of the trade journals. They told the owner about it and suggested that he travel



to the SUR / FIN® 2000 Convention and Expo in Chicago to view the advertised filtration system on display at one of the SERFILCO booths in the Navy Pier exhibit hall.

Mr. Scott Pickens, president, liked what he heard and saw in Chicago and a SERFILCO TITAN P150 filtration system was shipped to Albion from stock (July 11, 2000). The skid mounted unit was installed alongside the plating machine and "hit the ground running". The plating solution was a particularly tough one to filter because it was so heavily laden with iron. However, with the installation of the TITAN system, there was a dramatic solids (iron) reduction.

The TITAN now cycles once every couple of days and appears to look brand new after 9 months of service. (See photo above.) Selective density of the filter media allows depth loading of the bed without impacting the particles into the bed, thereby extending the operating life between backflush cycles. When the solution flow drops 25% below a preset high flow level, a sensor initiates the cleaning cycle. Plating solution is purged from the filter chamber to the plating tank. Water from the backwash tank floods the dual media bed and flushes the accumulated solids out of the filter chamber to the existing waste treatment system without media



carryover. The filter chamber is then purged of backflush water to the waste treatment system so as not to dilute the plating solution. The system automatically returns to the filtration mode. (See Sequence of Operation at right.)

Besides the statement by Mr. Christener that "The TITAN is the best thing we've ever bought here and that's saying a lot for a 40 year old company", Mr. Adkins echoed, "It was an expensive investment, but worth every dime of it". He followed by saying, "Our plating is a lot more consistent now."

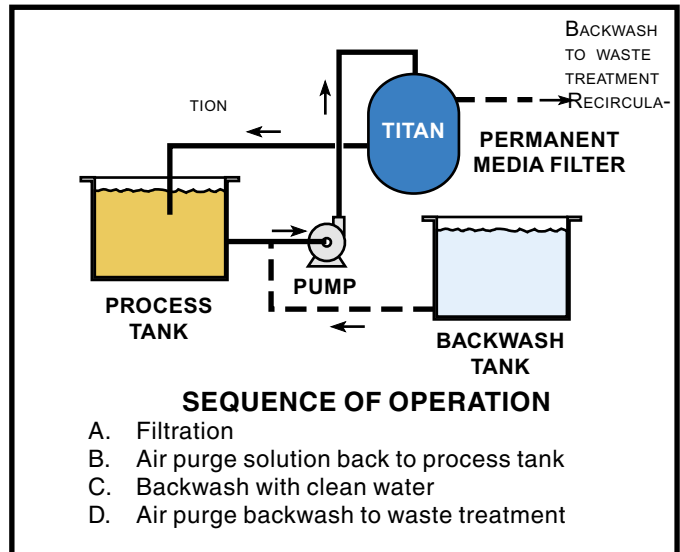
The company is so pleased with the automatic operation that they plan to install another SERFILCO TITAN system on their soak cleaner tank. This will, in turn, reduce the solids entering the HCl pickle as well as the electroclean tank, extending the life of these solutions and improving their performance. Currently, over a month's solids are building up in the cleaner tanks (400 gallons) which are carried forward in the barrels to the plating tanks as well as the intermediate steps.

At present, the cleaner has to be dumped monthly and each time it is dumped, it upsets the waste treatment system. With the installation of a TITAN system on their cleaner tank, the cleaner will produce more pristine parts and would only have to be dumped to waste once every 3 to 6 months.

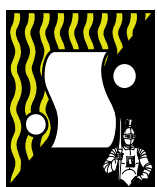
Ultimately, when it is economically possible, they will also consider the purchase of a TITAN W100 waste treatment filter to polish their 32 - 40 GPM effluent flow.

Mr. Pickens stated that he was very pleased with the purchase of the acid zinc filter. It not only causes more consistent work to be produced, it relieves the personnel to do other, more important work. Previously they had to spend a great deal of time cleaning the old filters instead of devoting the time to more productive operations.

Finally, from the information Mr. Adkins provides, the TITAN will easily pay for itself in less than 1 year!



Mr. Adkins with before and after samples



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