

-Sulfuric Acid Anodizing-

Acid Recovery with Diffusion Dialysis

What is Sulfuric Acid Anodizing?

The Anodizing process produces oxide film on the surface of an aluminum substrate. This acid film produces a hard corrosion and abrasion resistant coating, with excellent wear properties. Various electrolyte solutions can be employed, but the most commonly used is Sulfuric acid.

By controlling the electrolyte and the anodizing conditions, such as temperature, current density and air agitation, one can produce Aluminum coatings with almost any desired property.

Why should I use Diffusion Dialysis with my Sulfuric Acid Anodizing process?

Diffusion Dialysis is ideally suited for the recycling of sulfuric acid anodizing solutions. Diffusion Dialysis provides improved anodize quality, consistent anodized color and consistent anodic thicknesses, cooler and less energy demanding baths, while eliminating production down-time associated with the dumping and remaking of the anodize bath.

The passive, continuous Diffusion Dialysis process enables the anodizer to efficiently remove and control the dissolved aluminum content in the bath while recovering and returning a high percentage of the sulfuric acid back into the process bath. The Diffusion Dialysis process also removes and controls other contaminant build-up in the anodize bath, such as : copper, iron, lead, magnesium, manganese, phosphate, silicon and zinc, while producing a minimum of rejected waste by –product for subsequent treatment and disposal.

Acid Dump Volume (Gallons)

-Sizing-	<u>150</u>	<u>300</u>	<u>600</u>	<u>900</u>
Once Per Day	AP-150	AP-300	AP-600	AP-900
Once Per Week	AP-30	AP-60	AP-150	AP-300
Once Per Month	A-15	AP-30	AP-60	AP-60

Acid Purification System Model Number

Based upon 24hours per day/ seven days per week of operation.

Actual calculation: bath volume divided by calendar days of bath life equals gallons per day required.

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