-SULFURIC ACID ANODIZING-

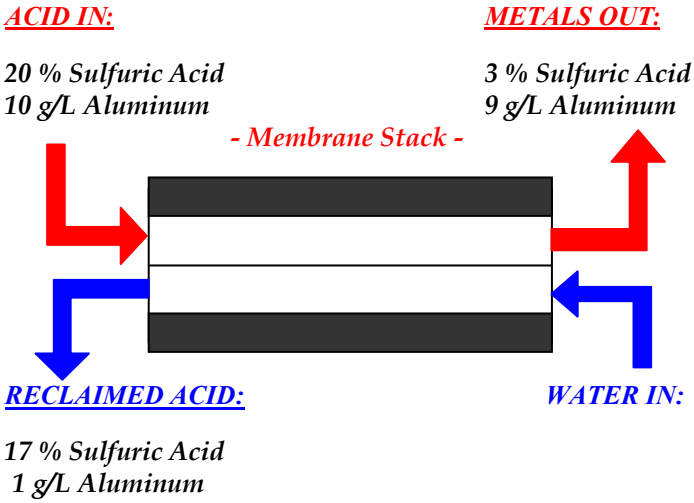
CONTROL & RECOVERY WITH DIFFUSION DIALYSIS

What is Sulfuric Acid Anodizing?

The Anodizing process produces an oxide film on an Aluminum part that is made the anode in an electrolytic cell. This film causes the Aluminum surface to be hard, corrosion and abrasion resistant, 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.

- Applied Diffusion Dialysis –



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.

- SIZING -

Acid Dump Volume (Gallons)

Frequency of Acid Dump	50	100	200	500	1000
Once per Day	A-60	A-120	A-250	A-500	A-1000
Once per Week	A-15	A - 15	A - 30	A-120	A-250
Once per Month	A -5	A - 5	A - 15	A - 30	A - 60

Acid Recycling System Model Number

Based upon 24 hours 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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