C/E-1 Chrome Scrubber

Scrubs All Chrome, Including Cr$_6$ and Cr$_3$, at 99.5% Efficiency or Higher, Regardless of Input Loading

The system is all-mechanical and does not consume chemicals or generate waste. It can be scaled to facilities of all sizes.

Our chrome scrubber features a multi-layer polypropylene pad system which operates under negative pressure. The filter apparatus is washed continuously in a nearly closed loop configuration. When chrome levels approach set point (generally 3000 ppm) water is forwarded to chrome recovery, or returned to the plating bath.

System Design

This Tri-Mer C/E-1 chrome scrubber is a low energy system generating less than 6" of internal static pressure, therefore energy consumption is extraordinarily low. Total water use is also low: average consumption is 15 gallons per hour for a 20,000 cfm unit. The C/E-1 chrome scrubber has no internal moving parts to wear or replace. Chrome can be recovered from both the gas stream and the filter.

Long Service Life

The standard C/E-1 is constructed of Type 1 PVC, the material of choice for high chrome concentrations. The estimated minimum service life of the filter is five years under continuous use. The system is projected to provide ten years of continuous service before primary maintenance is required.

Installation

Our chrome scrubber is simple to install and operate and is available in single units in capacities to 50,000 cfm. Installation can be accomplished by Tri-Mer or by plant personnel.

Tri-Mer provides a standard skid-mounted package which includes duct connections, controls interfacing, fan, recirculation tank, pump and piping.

www.tri-mer.com
Documented Performance

C/E-1 derivatives were originally engineered for anodizing and plating lines, where chrome concentrations vary and are frequently high. The system is adaptable for the scrubbing of fumes containing zinc, silver, platinum, and other materials.

Capital and Operations Costs

C/E-1 offers the lowest life cycle costs of any high efficiency chrome scrubber because it offers:

- High efficiency collection, reducing disposal costs
- Corrosion-free, modular construction
- Indefinitely reusable filtration system
- Lack of internal moving parts to wear or replace
- Ease of installation and maintenance
- Low energy use
- Minimal maintenance requirements

Options

- Dedicated exhaust blower, Type 1 PVC
- PLC interface
- Custom systems to 100,000 cfm, with field fabrication

Tri-Mer Corporation is a worldwide designer/manufacturer of advanced air emissions systems to control chrome, VOCs, NOx, SO2, fumes and odors, and particulates. For over fifty years, we’ve provided industry and select government entities with cost effective solutions to complex problems. We welcome the opportunity to recommend an air management solution for your application.