LIQUID FLOW EDUCTORS



Description

Airless agitation

Liquid flow eductors enable improvement of liquid flow and agitation in electroplating, pickling and cleaning tanks.

They function by taking liquid normally from a pump and because of their venturi design, increase the flow rate by about 5 times.

All Braude eductors are manufactured in rugged PP as standard with other materials such as PVDF available to order.

Key features

- Increase agitation
- Directional flow
- No aeration of liquid
- Simple to install and use
- Can be installed with existing filtration systems



Used By

- Steel Strip Manufacturers
- Wire & Tube Manufacturers
- Metal Finishers
- Chemical Plants
- Galvanising Industry
- Aerospace Industry
- Chemical Millers



BRAUDE Products will not corrode

LIQUID FLOW EDUCTORS



CONTROL OF MIST FROM PLATING TANKS ADVICE FROM HSE

Where prevention of exposure and/or substitution are not reasonably practicable, safe working practices should be established to minimise exposures. Mist generation should be minimised or the mist captured to minimise inhalation exposure. This mist also deposits onto surfaces which can then result in skin exposure and subsequent ingestion. All areas where skin exposures may potentially occur (directly and indirectly) need to be properly managed; from storage, to safe handling and use, through to disposal.

MIST GENERATION EG NICKEL PLATING

Agitation is required in most nickel-plating operations to ensure a constant supply of nickel at the work surface and to disperse hydrogen and heat. Air agitation of the plating solution is most commonly used which produces a mist containing nickel when the resulting bubbles burst at the plating solution surface. Bubbles of hydrogen and oxygen produced during electrolytic plating also contribute to generating this mist. The higher temperatures in electroless plating (80-90°C) also produce more mist. This is one reason why lip extraction is normally provided.

For all plating lines an Eductor agitation system will considerably reduce exposure compared to air agitation (from inhalation and a reduction in surface contamination reducing skin and ingestion)

Eductor systems may also lower operating costs and improve quality for a small capital investment. This method will also produce a mist which only contains small amounts of nickel (see photograph below) when compared with air agitation.



Air agitation showing foam, and contamination of tankand other surfaces



Eductor Agitation showing lack of foam and clean surfaces

