

## FOAMING

Foaming can be classified as either mechanical or chemical. Mechanical is basically air bubbles above the liquid level, while chemical foaming is an emulsion below the liquid level. You can determine which type of foaming you are dealing with by agitating a sample in a jar and observe where the bubbles appear above or below.

Chemical foaming has to be treated chemically:

contact your fountain solution supplier.

Mechanical foaming is caused by trapping air in liquid bubbles. In most circulation systems 50% of the air is ingested by the high suction return of the pump which returns more air than fountain solution to the reservoir. The surface tension of the fountain solution then traps the air in the bubbles. Mechanical filtration breaks the surface tension, freeing the air. Foaming can be minimised by:-

- a) Effective filtration (keeping filters clean and fitted correctly).
- b) Chemical additives ie. antifoam agents.
- c) Minimise the ingestion of air by using a liquid accumulator which limits the exposure of pump suction to liquid below the water line.

## Circulation Problems

If press pans overflow, the return flow rate is not keeping up with the supply flow rate. Three steps can be taken to prevent overflowing:

- 1) Check the return flow path is unobstructed.
- 2) If gravity flow is used to reach a point of suction, (ie multiple pans feeding a single pump) ensure the gravity flow descends the entire run with no traps.
- 3) Reduce the supply flow rate so as not to exceed the return flow rate.

N.B. This should be done at the pan control valves, the flow valve at the pump must be fully open to ensure full flow to the Alco-Miser.