

## Ultrafiltration systems to regenerate the spent solutions from photoresist and soldermask processes



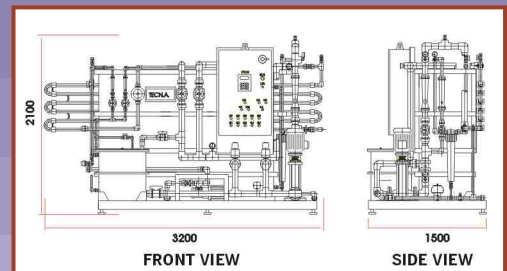
TECNA UF-DEV - mod. 10TA



Automatic rinses



Automatic spongeballs system



MODEL	CAPACITY
DEV 10TA	200 lt/h
DEV 2X10TA	400 lt/h
DEV 3X10TA	600 lt/h

### ULTRAFILTRATION

Ultrafiltration is a physical filtration process with highly specialized membranes that allows to separate the dissolved photoresist from the developing solution.

### THE PROCESS

The developing reaction may be represented as:  
 $\text{Na}_2\text{CO}_3 + \text{R-COOH} = \text{NaHCO}_3 + \text{NaOOCR}$

The Ultrafiltration membrane separates the molecule NaOOCR from the ions  $\text{HCO}_3^-/\text{CO}_3^{--}$  turning them available for a later reuse, and obtaining a recuperation of AT LEAST 90% of the chemical solution. The Tecna DEV system continually reconverts the bicarbonates in carbonates, keeping the developing solution concentration at constant values.

### ADVANTAGES

1. A constant break point.
2. A higher definition of the board paths during the development.
3. A considerable reduction of the maintenance on the machine, because the developing solution is always clean (ultrafiltered).
4. Environmental advantages.



Direct connection  
UF-developing machine