

ELECTROWINNING CELLS

'CLIENT SATISFACTION IS OUR SUCCESS'



Como Engineers Pty Ltd are suppliers of heavy duty 304 Stainless steel, rubber lined electrowinning cells. These are applicable to use for the recovery of precious metals.

Proven, standard designs are available for the following cathode sizes: - 600 x 600mm; 800 x 800mm; 1000 x 1000mm; 1250 x 1250mm.

Standard designs are based upon 12 cathode, 13 anode arrangements, but these can be extended or shortened as required (up to 40 cathodes). Furthermore, both centre feed (for large cathode units) and end feed (for standard cathode numbers) models are available.

Custom sizes are also available upon request.

The advantages of stainless steel cells over other cells include: -

Long life: unlike plastics such as polypropylene, stainless steel does not become brittle after a few years.

Robustness: steel cells will not readily break like plastic units.

Ease of repair: mine sites are more likely to have equipment to repair steel and rubber than plastic.

Lightweight: due to the strength of steel, the actual weight of stainless steel cells (due to wall thickness) is comparable with plastic cells and much lighter than concrete units.

Easy to relocate: due to the manageable weight and robustness of the units, these cells can be relocated time and again. Concrete cells can seldom be relocated and re-used.

Fire resistant: a common occurrence at Australian gold mines has been for plastic cells to burn and melt due to hot connections or interrupted solution flow. Stainless steel does not burn.

Integral lid / fume extraction: Como Engineers cells come complete with a lockable hinged stainless steel lid which serves both as a fume hood and to prevent unauthorised access to the cathodes. The lids can be connected to a suitable fan and ducting (also available from Como Engineers) via flexible duct. Optional lid lifting systems available include: -

pulley system (standard)

counterweights

manual gearbox

Electromechanical

Como Engineers offer two types of cathode systems; woven wire for sludging cells and wound steel wool systems (cathode winders also available). Anodes are stainless steel punched plate.

Over the years, Como Engineers have found that the most common cause of gold room fires is dirty 'quick release' type clips and frayed insulation on cables between the busbar and electrode connections. For this reason Como Engineers use a solid termination system, whereby electrodes are directly fastened to the busbars by stainless steel nuts.

Another finding has been that cathode baskets are unnecessary for wound steel wool systems. Correct winding seldom releases loose strands that can arc between the anode and cathode, and when they do short, the strands simply burn and disappear.