

## Giving You Confidence

Working with customers in mining operations for over 75 years we deliver innovative, cost effective process solutions for Iron Ore, Mineral Sands, Silica Sands, Coal, Chromite, Gold, Tin, Tungsten, Tantalum and a wide range of other fine minerals worldwide.

One of the latest innovations from our process engineering team is the Lyons Feed Control Unit (LFCU). Proudly carrying the name of development team leader John Lyons (pictured onsite below), the LFCU delivers world's best practice in feed control technology.



## Features

- Integrated rise rate control for the decanting of fines;
- Optimised hydrodynamics allowing the feed to expand and move through the bin;
- Fluidisation systems to energise the compacted feed prior to discharge; and
- Optional feed hydrocyclone system to control slimes (suspended solids).

## Benefits

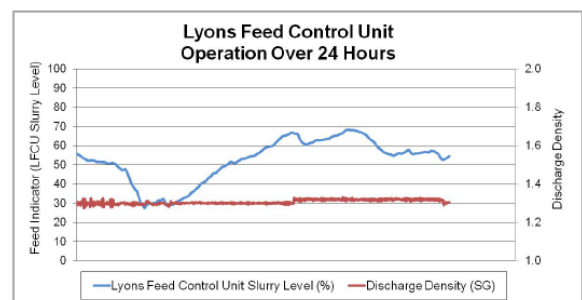
- Excellent throughput, flow and density control;
- Fines decant capability;
- Increased capacity stabilises processing plant feed conditions allowing downstream separation equipment to be operated closer to their optimal settings for longer periods of time; and
- Operating separation equipment closer to optimal for longer periods of time improves the performance of the equipment, making the overall processing plant more profitable.

## Application

Historically, slurry surge bins were designed without considering the mode of flow within the bin. The mode of flow was inevitably funnel flow where the slurry flowed down a central channel to the discharge point. This resulted in an inconsistent slurry density at the discharge and bin volume not utilised effectively.

The LFCU is an advanced, technology-driven, smart surge bin and is manufactured exclusively by Mineral Technologies. The use of the LFCU in plants worldwide has resulted in consistent slurry density at the discharge point despite large fluctuations in flowrate and density into the bin.

By smoothing out the flow and density of the feed; downstream separation equipment can be operated closer to optimal settings for longer periods of time, thereby improving performance and overall profitability of the processing plant.



The ability to stop the bin full, re-fluidise and get back to density controlled discharge utilises the entire bin for storage capacity and further reduces input fluctuations effects on bin performance.

## Installations

- Grande Côte, Senegal – Spiral Feed and Tails Discharge
- Cristal Snapper Plant – Rougher Spiral Feed and Recleaner Spiral Feed
- Iluka J-A Plant, Douglas, Australia – Plant and Balranald Tails Reinjection Feed Bin

