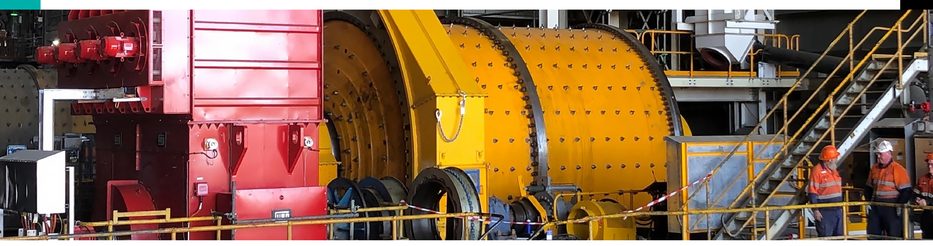





# New Mount Isa Mines copper concentrator Ball Mill improves the daily grind

Improved flotation performance can be attributed to the recent commissioning of a new Ball Mill at Glencore's Mount Isa Mines Copper Concentrator.

A third Ball Mill complete with a 3,500 horse power motor sits gallantly between the SAG Milling and Flotation sections at the Copper Concentrator delivering finer ground ore to increase metal recovery and improve the quality of copper concentrate supplied to the Mount Isa Copper Smelter.

For those unfamiliar with how they work, a Ball Mill grinds material by rotating a cylinder with steel grinding balls (known as media), causing the balls to fall back into the cylinder crushing the material.

Area site preparation under way at the Copper Concentrator.

The Ball Mill shell arrives into Mount Isa along Marian Street.

The massive 3,500hp mill motor being lifted into position.

Over recent years, incremental throughput projects have been completed at the Concentrator allowing a greater volume of material to be processed in a 24-hour period. The downside to this is that the grind size of material sent to the Flotation plant has also increased leading to lower recovery levels of copper bearing mineral within the ore.

By intensifying the amount of grinding power within the circuit, a finer grind size (similar to the width of a human hair) has been achieved to maintain the same throughput volumes, while preserving copper recovery.

Originally designed in the early 1970's, only a handful of components differ between the new and existing mills onsite. With reliability that has stood the test of time and a strategy developed over decades of operation, the new mill and its associated equipment were deliberately designed to mirror the existing mills as closely as possible.

Superintendent Strategic Projects Processing Operations Jaap Verhoek says our people have valuable operational knowledge, experience in maintaining the equipment and are familiar with the existing mill components so no significant retraining of personnel for the new Ball Mill was required.

This also provides the added advantage that critical spare parts can be shared eliminating any additional cost in holding spares onsite.

Progressing the installation and alignment of the girth gear and pinion alignment.

The girth gear and pinon alignment.

Third Ball Mill nearing completion at the Mount Isa Copper Concentrator.

"The new mill install was delivered concurrently with two other flotation projects and the success of all three projects can be credited to being managed in-house allowing us to redeploy resources, when necessary, and maintain a continuous workflow," says Jaap.

Manager of the Copper Smelter Mark Peterson says the project was carried out by a small team, hand selected from multiple contracting firms and our own experienced Mount Isa Mines personnel.

"Building new plant equipment within an existing operational footprint was a challenge, especially with three projects on the go at once," Mark says.

"However, with the flexible approach taken by the team all projects were executed and managed extremely well."

Installation was largely completed in June and the mill has been in operation since the start of July this year. Commissioning is underway and quality assurance checks are ongoing to ensure the mill performs as intended.

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