

New storage solution will battle rising cost

With the onset of the mining boom and skills shortages in recent years, costs for field welding have escalated rapidly pushing up the construction costs of slurry storage tanks, according to Xstrata Technology General Manager Hydrometallurgy Mike Hourn.

"Slurry storage tanks are traditionally welded in the field, and as a result the costs of construction of these tanks, and the times required to construct both, increased significantly," Mr Hourn said.

"Xstrata Technology sought to develop a modular slurry storage and leaching tank to address both the need for skilled labour at site and also the construction times."

Mr Hourn said although bolted and modular tanks were commonly used for water storage, and had largely replaced welded tanks in the water storage industry, these modular techniques had not been extended to the more robust requirements needed for high density abrasive slurries, and so the ZipaTank was developed to fill this void.

The ZipaTank is an innovative modular tank with simple mechanical joints to provide all the benefits of a traditional welded



Robust: The bolted and modular ZipaTank suits the robust requirements needed to store abrasive slurries.

tank but with lower costs, reduced installation times and greater flexibility.

"All fabrication is carried out at a remote fabrication shop, with site assembly limited to simple bolting," Mr Hourn said.

"Erection times are three to five days for a large tank, compared to months for a field welded tank."

Mr Hourn said the ZipaTank used

two types of unique mechanical joints to replace the traditional welded seam in a welded tank.

"The mechanical joint allows a faster assembly and lower overall cost, but offers unique advantages, such as relocatability of the tank, and potential expansion of an existing tank by adding new levels," he said.

The base assembly is provided

as prefabricated sections inclusive of the annular ring for joining at site by welding. This is the only welding required for the construction of the ZipaTank.

Xstrata Technology's ZipaTank has only been commercialised recently with the sale and erection of 12 reactors for the oxidative leach train for the GeoProMining Gold Project in Armenia.