

INSTRUMENTAL ROLE

A Queensland company has emerged as a preferred provider of control systems for an increasingly popular smelting technology. **By Luke Forrestal**

A strategic alliance with one of the world's leading suppliers of high-tech mineral processing equipment has taken Brisbane-based process control engineering specialist MIPAC to China to complete work on major smelter projects twice now in the past five years, and is hoped will lead to further business for the company in the booming Asian market.

MIPAC won its first Chinese contract with Xstrata Technology, with which it shares strong historical and geographic ties, in 2000 when it was called upon to provide a process control solution for a smelter upgrade Xstrata was undertaking for state-owned Yunnan Copper Corporation (YCC).

The project involved the installation of Xstrata Technology's ISASMELT system in place of an old smelter which was causing environmental problems, and is viewed as a success as ramp-up to nameplate capacity occurred smoothly in a short space of time and the plant is now said to be performing extremely efficiently.

Not long after the commissioning of the YCC smelter in 2002, Xstrata Technology again enlisted MIPAC for an ISASMELT project with another state-owned organisation, China Yunnan Metallurgical Group, which was about to begin construction of a new lead smelter at Qujing in the country's south.

The three-year CYMG project came to an end in August with MIPAC overseeing the successful commissioning of an Emerson Delta V and Fieldbus measurement and control system, allowing the ISASMELT and associated feed system to commence operation.

With these two projects under its belt, MIPAC has understandably developed great confidence in its ability to carry out work in Asia — be it for Xstrata Technology or any other client — and has indicated a keenness to pursue further opportunities in the region, of which there are currently almost a countless number.

"China is one of the world's fastest growing economies and a large consumer of mineral resources," said company director Paul Puusaari, who was also in charge of the CYMG project. "This is putting great pressure on mineral processing companies to upgrade smelter capacities, increase productivity and efficiency and reduce negative environmental impacts.



The CYMG ISASMELT in Qujing, China, with design and process control managed by MIPAC.

"We do see (China) as a growth market. We're looking to do more work there and Xstrata themselves think it's quite a fertile market for additional ISASMELTs. "They've got some prospects there at the moment and we think they will probably convert those into projects."

Should the ISASMELT orders continue to roll in from Asia as expected, MIPAC would consider itself favourite to win any accompanying process control work, and rightfully so. It has now been involved in no less than 14 ISASMELT installations worldwide, giving it a familiarity with the technology that only Xstrata Technology itself could match.

This was clearly a factor in winning the CYMG contract, with Xstrata Technology general manager Joe Pease commenting at the completion of the project that MIPAC's "expertise in major control systems implementations, international project experience and recent success in China" made it the obvious choice for the project.

Part of the reason MIPAC is so well acquainted with the ISASMELT system and its workings is that many of the company's employees have previously worked for Xstrata Technology, or its predecessor, MIM Technologies.

"There's a bit of an historical tie-up," Puusaari said. "Some of us here have worked for MIM so we generally know the people and the technology pretty well. They select us because they know we're experts in the field. They know that they get a high-quality design and the service is of significant value to them."

With the work flowing in from Xstrata and other mining groups such as BHP Billiton, Rio Tinto, Placer Dome, Birla Copper and Sterlite Industries, and customers in the pulp and paper mill industry, where it is also active, MIPAC has seen revenues increase by more than 100% over the past 18 months. A significant factor in that growth, according to Puusaari, has been the shortage of in-house process control and electrical engineering skills, particularly among the company's mining clients.

"We've found there's been a general de-skilling and the companies quite often don't have the resources to even write a proper specification, so there's been a lot of demand for our services because there's a shortage of skilled people within the companies themselves," he said.

MIPAC, which employs a combination of instrumentation, electrical and chemical engineers, has also seen its workforce double to about 40 in the past 12-18 months, but finding suitably qualified candidates has proven a difficult task.

Despite a good retention rate and a program in place to take graduates from the Queensland University of Technology, the company has had to take its recruitment drive overseas purely because of the amount of resource development activity going on in Australia.



The ISASMELT control room at CYMG featuring MIPAC-designed and configured control interfaces.