

Mergers & acquisitions in Russia's oil industry... P12

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Encouraging results

The continuing rapid growth of the Malaysian oil, gas and petrochemical industry and the drive towards ISO9001 quality have seen equally remarkable developments in Malaysian fabrication capability for process equipment, vessel components in production facilities, gas processing plants, refineries and petrochemical plants.

Among the leaders of Malaysian process equipment manufacturing is KMM Steel Construction Sdn Bhd, a company that has within the last eight years grown by leaps and bounds, from being awarded the first contract by a leading Japanese EPC Company building the Petronas Refinery in Melaka, to today having three manufacturing plants with a total shop space of 27,000 square metres, located in Melaka, Keloh and Coteng in Malaysia, with access to world shipping.

With its pool of qualified professionals and engineers, KMM is now capable of undertaking design and engineering of pressure vessels, heat exchangers, air coolers, specialised structural systems, process skid packages, tank farms and spools, as well as the rework of gas plants, refineries and petrochemical plants.

The company has ploughed major investment into equipment and engineering capabilities with a synergy at the top driven for its competitive advantage. It today owns the largest plate rolling and bending machine in Malaysia with the capacity of up to 100mm thick and 4 metre width, allowing the company the ability to manufacture heavy and thick walled vessels and structures.



The welding techniques pioneered at KMM are among the finest in the world, acquired through co-operation with a European partner several years ago.

KMM is the only process equipment manufacturer in Malaysia to be accredited the ISO 9001 quality standard by ABS Quality Evaluations Incorporated of USA. It is also accredited and endorsed in the UK and EU stamps by the American Society of Mechanical Engineers (ASME) on manufactured pressure vessels and has the approval of

Construction Award for manufacture welded prestressed tanks for liquid gas.

It has the expertise and capability to design and manufacture mega-sized LPG bonded bulks, of up to 8 metres in diameter, 36 metres in length, with a weight of 130 tonnes, a feat breaking the record in Malaysia's Book of Records.

In line with KNM's philosophy of developing expertise, its team of engineers has introduced a new revolutionary method of testing pressure vessels during manufacturing. The first in Malaysia, this state of the art non-destructive method, termed 'Time of Flight Diffraction' or 'TOFD' uses ultrasonic techniques saving valuable time without sacrifice of work.

Other innovations include the non-traditional post-weld heat treatment on-stand, a method where the vessel (its on a sand bed and is buried into a self-designed furnace unit. It is completely insulated. Burners are then used to fire the vessel to a post-weld heat treatment temperature of 502°C.

KNM also invented, developed and perfected a new cone neck tank fitting method using the column's system called 'CELEFF' for which it has filed a patent application. This new method, developed in-house by the company's experienced engineers, enhances safety at work, saves



costs and shorten delivery time.

But the biggest and most challenging undertaking thus far which demonstrates KNM's capabilities as the true leader in process equipment manufacturing, is the fabrication of this propane-propylene splitter, one of the world's tallest and perhaps the world's heaviest, pressure vessels, measuring 105.5 metre high and with a bare weight of 1,070 tonnes and fully dressed weight with internals of 1,640 tonnes. With a diameter of 7.3 metres, this splitter, commissioned by a subsidiary of Petronas for its advanced downstream propane reformed operations plant in Cenang, was completed in a record time of eight months.

Its on-time delivery and fabrication, according to stringent quality standards, further enforces the technical and engineering skills of KNM's team of professionals to successfully complete a task, man-made, according to world standards.

It is a testimony to a company chasing new grounds to be a global player, a world class fabricator of process equipment for fossil, gas and petrochemical industry, to be competitive, innovative and thereby create a niche market for its products and services. But most of all deliver a quality standard that's second to none, to its valued customers both in Malaysia and anywhere in the world.

