

INDONESIA

Jawamanis Sugar Refinery



In Brief

- 2000 PT Jawamanis Rafinasi established
- 2001 Purchase of second-hand refinery from Japan, transport of equipment to Indonesia
- 2002 Review of construction by Booker Tate and subsequent commissioning
Construction of refinery completed in Cilegon and first sugar produced
- 2003 Optimising of refining process, establishment of production reliability and product quality
- 2004 Development of customer base
Decision to expand refinery
- 2005 Booker Tate selected as project managers for refinery expansion.
Record daily production of 587 tonnes achieved

Background

In 2000, a group of local and international investors established PT Jawamanis Rafinasi (JMR) to purchase a second-hand refinery from Japan and relocate it to Indonesia.

In 2002, JMR completed the relocation of the second-hand sugar refinery installing it on an 11 hectare site near to Cilegon, West Java.

Shortly before commissioning, Booker Tate was engaged to assess the condition of the second-hand plant, review the installation and provide recommendations for completion. The refinery was duly commissioned in 2002 and has operated since at an output of around 425 tonnes sugar per day (ts/d).

Current plant

JMR obtained its plant second-hand from the Shimonoseki refinery in Japan and erected this plant and the buildings in which it is housed. Most of the Japanese plant is around 30 years old and has been supplemented by additional equipment. Some of this new equipment has been purchased to overcome difficulties that were encountered whilst operating the refinery since start up. Other equipment was purchased due to omissions in the plant supplied from Japan, such as modern controls, which were not offered for sale.

The refining processes employed by JMR include affination, carbonatation, filtration, resin decolourisation, evaporation, crystallisation, centrifuging, drying and recovery. Refining operations are supported by two boilers, two turbo-alternators and other utility plant. Sea water is used for condensing vapours produced in the process and is pumped from the raw sugar berth 1km away and returned to the same area.

The refinery's product quality has been good and a strong market found for the two grades of sugar produced. First boiling sugar is bagged as low colour sugar and sold primarily for industrial use. Other white sugar boilings are bagged as higher colour and tend to be sold at a lower price in competition with plantation white sugar. The finished products are packed into 50kg bags and dispatched into the Indonesian market from the on-site warehouse.

Refinery expansion

Since starting operations, demand for refined sugar in Indonesia has been high. The quality and reliability of JMR's operation has ensured the profitability of the company in this market and with demand remaining strong, an expansion project has begun.

In connection with this planned expansion, Booker Tate was engaged by JMR to review the current state of the factory, assess the current bottlenecks and determine the requirements for expansion to 1 000 ts/d, twice the design throughput. Following an investigation, refinery designs for the expansion were submitted and in March 2005 JMR and Booker Tate entered into a two-year Project Management Agreement to expand the refinery.

Booker Tate are project managing the Expansion Project with a resident team of Booker Tate engineering staff. Commissioning of the new plant will be completed in 2006 with some critical plant brought on line earlier. Visiting technical support for ongoing operations is also being provided as part of the services included in the agreement.



Further details:
Booker Tate Limited
Masters Court Church Road Thame Oxfordshire OX9 3FA UK
T: +44 1844 251000 F: +44 1844 251020
info@booker-tate.co.uk www.booker-tate.co.uk

