

MYR 590,246 (~USD 139,902) saved for an oleochemical plant through condensate and flash steam recovery

 Malaysia

 Oleochemical

Problem

An oleochemical plant in Johor, Malaysia was losing energy as condensate was only partially recovered, and flash steam was completely vented from its refinery complex.

- 8,726 Kilograms per hour condensate was recovered to the feedwater tank at a significantly low temperature of 80°C (176°F)
- 342 Kilograms per hour condensate was being drained.
- 100% Flash steam, i.e. 595 Kilograms per hour, was vented to the atmosphere.

Solution

orbes Marshall conducted a study of the refinery complex and the following solutions were recommended and implemented:

- A FlashJet™ Pump (FJP) was installed to recover condensate and 100% flash steam. This also enabled recovering condensate at a higher temperature.
- A Deaerator Head (FMDH) System was installed on the feedwater tank to enable the proper mixing of condensate, flash steam and makeup water.



Forbes Marshall FlashJet™ Pump installation for condensate and flash steam recovery

Benefits delivered

Condensate recovery	improved from 8726 to 9068 Kilograms per hour (19.2K to 19.9K Pounds per hour)
Temperature of condensate recovered	improved from 80 to 98°C (176 to 208.4°F)
Flash steam recovery	improved from 0 to 100% (595 Kilograms per hour)
Annual monetary savings	MYR 590,246 (~USD 139,900 *conversion based on exchange rate)

