7% fuel bill reduction through trap uptime and flash recovery for a sweetener manufacturer

Indonesia | F&B | Chemical & Pharmaceuticals

Problem

Despite regular replacement and maintenance efforts, a chemical plant producing sodium cyclamate, a sweetener for food and beverages, and pharmaceuticals in Indonesia was struggling to sustain uptime of its mainline and process traps. 0% mainline and process steam trap uptime along with venting of flash steam from the condensate recovery tank resulted in higher fuel consumption. This adversely affected the energy efficiency of the facility. Right selection of mainline and process steam traps, with a FlashJet™ Pump were recommended in order to enhance uptime and improve condensate and flash steam recovery.

Solution

Forbes Marshall conducted a detailed walkthrough and implemented a comprehensive solution. This involved improving the steam and condensate network by optimising steam trap selection and installation. A FlashJet™ Pump, along with mainline and process traps (Compact Module Thermodynamic Trap & Compact Module Two-Orifice Float Trap) were installed, improving steam trap uptime, condensate and flash steam recovery.

Benefits delivered	
Increased mainline trap uptime	from 0% to 100%
Increased process trap uptime	from 0% to 47%
Enhanced condensate recovery factor	from 87% to 100%
Flash steam recovered annually	1,332 tonnes (2.93 million pounds)
Annual fuel bill reduction	7%
Annual monetary savings	USD 30,000