

# Saving 8.9% fuel annually through condensate and flash steam recovery at a cocoa processing plant

 Indonesia

 F&B

## Problem

A leading cocoa processor in Indonesia was looking for avenues to save more fuel. Their gas consumption was 214,989Nm<sup>3</sup>/month (7.9 million SCF per month) with a steam to fuel ratio of 8.75 due to partial drain of condensate and venting flash steam.

## Solution

Forbes Marshall conducted a detailed walkthrough of the plant and recommended a comprehensive solution, which included a condensate and flash recovery system (flash vessel and a Pressure Powered Pump Package Unit PPPPU). This enabled recovery of high temperature condensate and flash steam. This led to an improvement in feedwater temperature and boiler steam to fuel ratio, substantially reducing gas consumption.



## Benefits delivered

	Before	After
<b>Improved feedwater temperature</b>	75.6°C (168°F)	93–95°C (199.4–203°F)
<b>Increased steam to fuel ratio</b>	8.75	12.74
<b>Reduced gas consumption</b>	214,989 Nm <sup>3</sup> /month (7.9 million SCF)	195,950 Nm <sup>3</sup> /month (7.2 million SCF)
<b>Annual monetary savings</b>		USD 77,678

