



ALTA PROCESS SOLUTIONS

AFFILIATED TO ALTA ENERGY SOLUTIONS CORPORATION

ALTUS CENTRE – SUITE 2500 – 500 4th AVE SW CALGARY, AB, T2P 2V6 CANADA

INFO@ALTAENERGY.CA | WWW.ALTAENERGY.CA | WWW.ALTAPROCESS.CA

INDUSTRIAL PROJECTS

Project No.: 03

Industry: Specialty Chemicals

Project Subject:

Energy Consumption Optimization of Furfural Process

Challenge:

This project consists of optimizing energy consumption of Furfural Process in Engine Oil Production Plant. In this study, stream pressure drops were addressed along with the energy and surface area of the network and all three parameters were optimized simultaneously. As a result, %18 energy saving was realized with acceptable payback.

Proposed Solution:

1. Heat transfer between hot and cold streams in the network was increased by installing new heat exchangers. Thus, the amount of fuel to fire furnaces decreased. Also, reliability and safety of the system were upgraded.
2. Pumps and Compressors were checked and some of them replaced with the bigger ones.
3. The heat load on the coolers reduced, and therefore cooling water consumption and electric power consumption in the air cooler fans decreased.
4. The energy intensity of the overall production plant were reduced which resulted in a lower product cost.
5. GHG's emissions reduced due to less fossil fuel consumption.

Results:

