



# ALTA PROCESS SOLUTIONS

AFFILIATED TO ALTA ENERGY SOLUTIONS CORPORATION

ALTIUS CENTRE – SUITE 2500 – 500 4<sup>th</sup> AVE SW CALGARY, AB, T2P 2V6 CANADA

[INFO@ALTAENERGY.CA](mailto:INFO@ALTAENERGY.CA) | [WWW.ALTAENERGY.CA](http://WWW.ALTAENERGY.CA) | [WWW.ALTAPROCESS.CA](http://WWW.ALTAPROCESS.CA)

## INDUSTRIAL PROJECTS

**Project No.:** 02

**Industry:** Petrochemicals

**Project Subject:**

**Retrofitting of HEN of Aromatics Plant in Petrochemical Complex**

### Challenge:

This project consists of retrofitting of heat exchanger network of Aromatics Plant in a petrochemical Complex. By using the most advanced Process Integration techniques, %37 energy saving was realized.

### Proposed Solution:

1. Addition of one shell in series to exchanger unit EA101A.
2. Splitting hot stream flow rate (entering to unit E101B) into two branches.
3. Splitting hot stream flow rate (entering to unit E201AB) into two branches.
4. Elimination of Furnace BA251.
5. Lowering the load and energy consumption of coolers and furnaces network except for Furnace BA203 which its load and energy consumption remained constant (%37.15 energy saving in the network).
6. Upgrading the performance of pumps (GA256AB and GA252AB).
7. Temperature shifting of existing exchangers except for EA251AB which remained unchanged.

### Results:

			
Energy Saving (%)	OPEX Saving (\$/yr)	Investment (\$)	Payback Period (month)
37	1,134,000	1,568,728	17