

Olefins & Petrochemicals

Technologies and Systems

*Increasing Profit Margins and Lowering
Operational & Maintenance Costs*



Universal Technologies Corporation

Olefins & Petrochemicals Technologies and Systems

1. Spiral & Hybrid Spiral Cycles Technologies

Converts any Low, Medium, or High level heat into:

- Electrical Power
- Refrigeration -- Any level
- Compressor Shaft Horse Power

2. Furnace Fuel Reduction & Fire Protection Technologies

- The Specialty & Fine Additive -- XWX-- may also be injected to the Cracker Feed to control coke formation during the normal operation. As coke is produced, it is smaller in size than the current coke formation and has the tendency to adhere less to the coil walls.
- Reduction In Fuel Firing: The Specialty & Fine Additive -- XWX-- may also be used to reduce the Cracking Temperature by 50 -75° F
- Fire Protection During Emergency & Normal Furnace Operation
- Prevention of Auto-Ignition of Hydrocarbons under elevated temperatures. The Auto-Ignition of Hydrocarbons has the tendency to cause explosions, increases in unnecessary pressure in the coils, as well as damage the coils.

3. ATO Technology For Spent Caustic Treatment

Basically, sulfur compounds such as Sodium Sulfide, Sulfite, Hydrosulfite, and other related compounds are oxidized with specialty oxidizing chemicals in a mixing eductor. The liquid is transferred into the tank. The reactions are carried on at 90-120° F. Any Hydrocarbons in the Spent caustic will also be decomposed into carbon dioxide and water.

UTC's ATO Technology - Eliminates the Wet Air Oxidation unit.

Advantages:

- Zero Emissions
- Overall Clean Operation
- No Operational Cost
- Emissions Credit which may be significant
- Minimum Operational Cost

4. Flareless (Near Zero Flare) Units Operation Technologies

- Large quantity of Hydrocarbon liquid can be recycled to units
- Minimizing the Flares during Emergency, Normal Operation, Start- Up & Shut Down
- Vapors can also be recycled back to Units by using UTC's Vaporflexx Technology without any impact on the Units and Flare system
- Near Zero Flare or Flareless operation may be achieved to exceed the State & EPA Environmental Standards
- Application of IDMF (Indirect Mass & Heat Transfer Flow) Technology – Absolutely no change in unit operations or impact on the process conditions

With the applications of UTC's Two Technologies, the start-up time for the Cold – End is reduced to half and near zero flare can be achieved.

Technologies and Systems only offered by Universal Technologies

Imagination is the Limit



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