

# ThermFlex®

## ATHCO FULLY WELDED THERMO-PLATE HEAT EXCHANGER

### THERMFLEX®

ThermFlex® heat exchanger consists of a rectangular lamella unit mounted in a round, pressurized shell. Our concept combines all the advantages of a pillow plate exchanger with the ability to reach several thousand m<sup>2</sup> in a single unit.

### DUTY TYPES

- Condensation
  - » Full condensation
  - » Partial condensation
- Evaporation
- Liquid – liquid
- Gas – gas
- Gas - liquid

### TYPICAL APPLICATIONS

- Ethylene Glycol production:
  - » Hydrogenation and Carbonylation
- Ammonia synthesis
- CO shift
- Sulfur Recovery
- Catalytic Reforming
- Hydrotreating
- Methanol Synthesis
- PX (p-xylene)

### PRODUCT ADVANTAGES

- Low pressure drop due to free flow on shell side
- Low fouling due to free flow on shell side
- Superior heat transfer compared to Shell & Tube exchanger giving possibility for:
  - » Fewer units – lower CAPEX
  - » Smaller foot print – lower CAPEX
  - » Closer temperature approach - lower OPEX
  - » Installation, transport, foundation and piping – lower CAPEX
  - » Lower operating cost
- Allowing problem-free passage of catalyst fines thanks to the flexible distance between the thermo plates
- Can be delivered with round lamella unit or rectangular lamella unit, making surface areas of up to 4500 m<sup>2</sup> per unit possible.

