



Elessent[®]
MECS[®] TECHNOLOGIES

OPEN CHANNEL AIR PREHEATERS (OCAP[™])



MODULAR AND CUSTOM DESIGNED FOR EACH APPLICATION AND AVAILABLE IN BOTH CROSS-FLOW AND COUNTER-FLOW OCAP[™] CONFIGURATIONS.

With over 1,000 customers in over 60 countries around the world, our ability to understand the overall requirements of plant operation gives us a unique advantage in designing equipment to meet your specific needs.

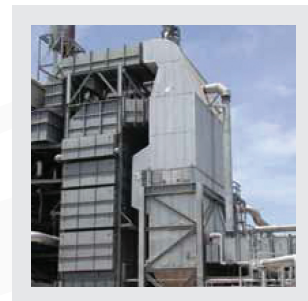
In 1981, North Atlantic Technologies, Inc. introduced the OCAP[™] recuperative plate type heat exchanger.

This unit's design as a static device with no moving parts or working fluids makes it ideal for most gas-to-gas heat exchanger applications. MECS, Inc. (MECS) has expanded our portfolio to include the OCAP[™] previously offered by North Atlantic Technologies.

Modular and custom designed for each application, the OCAP[™] is very compact and available in both cross-flow and counter-flow configurations to fit the plot size in most retrofit installations. This modular design offers the most flexible and efficient flow arrangements. It also offers the freedom to select appropriate materials of construction for each heat transfer zone and significant improvements in design and operational flexibility.

FEATURES AND BENEFITS:

- Generous plate clearances
- Ability to inspect and clean both sides of the exchanger
- No tubes to vibrate or cause acoustic resonance
- Floating plate pack to handle differential thermal expansion
- Modular design can accommodate future incremental capacity increases
- Modules are transportable, allowing high-quality shop fabrication and eliminating costly field fabrication
- Compact space-saving geometry
- Rigid heavy-duty frame assembly
- Material "mix and match" construction
- Ease of installation
- High efficiency
- 10%–15% less weight
- 30%–40% smaller size



OPEN CHANNEL AIR PREHEATERS (OCAP™)



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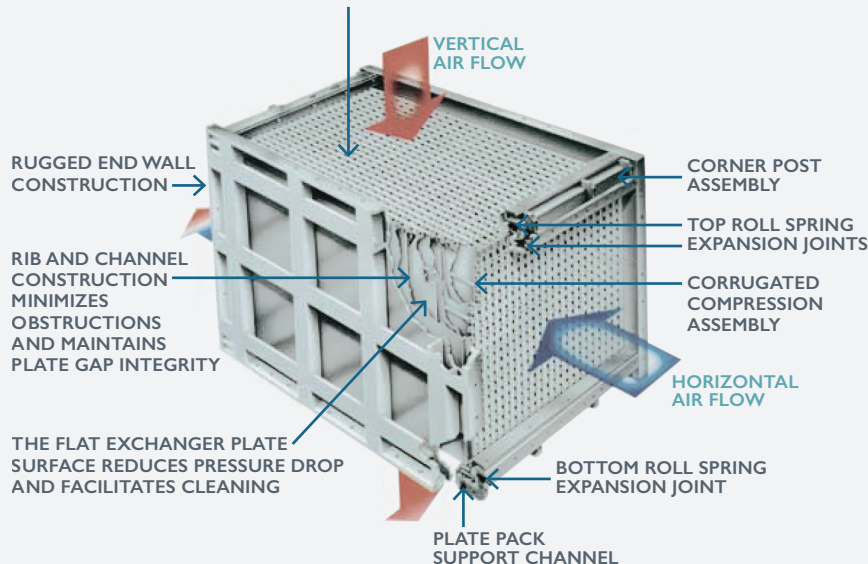
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OPEN CHANNEL AIR PREHEATERS

FLOW SCHEME FOR COUNTER-CURRENT FLOW OCAP™

METALLIC PLATES EFFICIENTLY TRANSFER HEAT. THE NON-WELDED PLATE PACK IS ALLOWED TO FREELY EXPAND AND CONTRACT WITHIN THE RIGID FRAME



OCAP™ units are curable and well suited for a variety of difficult applications:

- Fired heaters
- Incinerators
- Dryers
- De NOx
- Gas coolers
- Air preheating

OCAP™ units use a non-welded “oating” plate pack contained within a rigid housing. This design permits thermal expansion and contraction with minimal stress on the unit's components. A patented compression-strip assembly provides a tight metal-to-metal seal.

A single unit consists of one or more modular blocks configured in a cross-flow, counter-flow or other configuration. The gas flow passages are formed by uniquely constructed plates that nest together with directional ribs, providing support throughout the plates.

OCAP™ units offer a unique opportunity to optimize materials. By selecting multiple blocks in series, the designer can specify the appropriate metallurgy for each block—for example, the cold block with stainless steel plates, the intermediate block with carbon steel plates and the hot block with stainless steel plates.

OCAP™ units are a member of the MECS family of heat exchanger product technologies.

Elessent Clean Technologies
MECS® Technologies
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