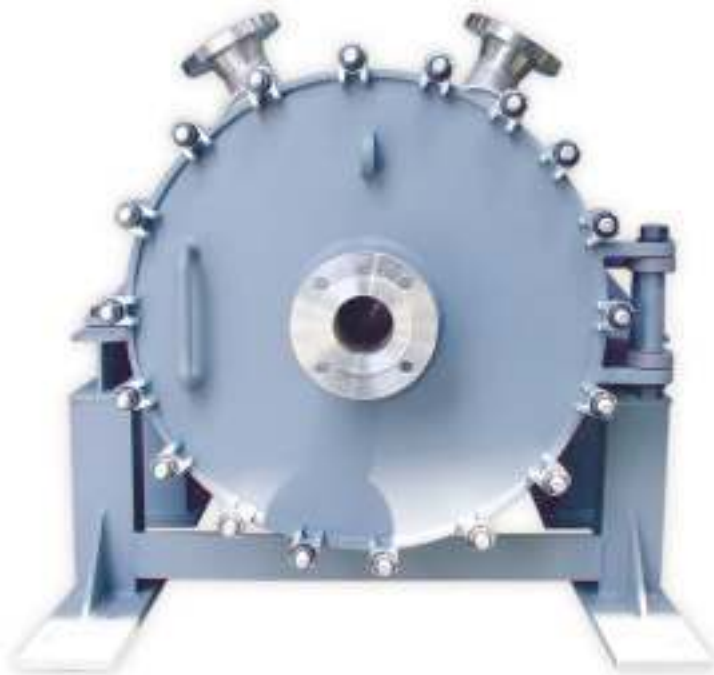


Spiral Heat Exchangers

Spiral (Compact) Heat Exchangers

Spiral heat exchangers are compact and ideal for many industrial applications..



SEC Heat Exchangers
2546 Iona Road, Belfast, PE, C0A 1A0 Canada
T.902.659.2424, F.902.659.2800, info@secheatexchangers.com

Spiral Heat Exchangers

Spiral (Compact) Heat Exchangers

Standard and Custom

High quality SEC Compact Spiral Heat Exchangers are designed for cost effective heat transfer performance and lowest possible life cycle costs.

SEC Spiral exchangers are available in standard and custom designs to suit almost any application. Thousands of installed spiral heat exchangers makes its technology widely accepted and trusted.

SEC Spiral approaches the ideal in heat transfer due to a single channel for each side which eliminates distribution problems and reduces fouling. The spiral channels, enhanced by studs, induce turbulence which increase heat transfer efficiency. True counter-current flow permits close temperature approaches and temperature cross for heat recovery and interchangers.



Specialized flow distribution is achieved using various manifolds, impingement plates and other techniques to minimize entrance and exit maldistribution.

Typical Spiral Configurations

Spiral Liquid-Liquid

Typical counter-current flow for both liquids.

Spiral Gas Condenser

Typical chamber on top of heat transfer bundle and gravity flow as it condenses or cools

Spiral Liquid Vaporizer

Typical reboiler configuration with vapour dome on top of the heat transfer bundle.

Spiral Vapour Condenser

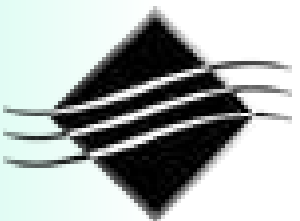
Typical vapour condenser, usually with little or no inerts.

Spiral Top Condenser

Typical condenser without cover and is usually installed directly to column or reactor.



SEC Spiral is an assembly of two long sheets, usually separated by studs, wrapped to form a pair of concentric spiral channels. Alternate edges are closed and seal welded. Covers on each side complete the Spiral. Connections are installed on the "shell" and covers to provide true counter-current flow.



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Spiral Heat Exchangers

SEC Heat Exchangers Manufacturer and an International Distributor of heat exchangers and can offer **Multiple Choices** for a given application. Compact Spiral exchangers are ideal for many Industrial applications.

Some common Spiral applications include:

- Slurries such as PVC slurries
- Particle laden or fibrous media in productions of pulp and paper, textiles, ethanol etc.
- Erosive slurries in metal extraction and processing
- Hydrocarbon processing
- Viscous fluids such as heavy oils
- Distillation, condensation and reboilers
- Vegetable oil deodorizing
- Non-newtonian fluids
- Sewage sludge and waste water



Materials

- Carbon Steel
- SS304L
- SS316L
- Any other weldable metal
- SMO 254
- Nickel Alloys
- Duplex 2205

Service Limits

Pressure: 250 psig / 17 barg

Temperature: 750°F / 400°C

Custom designs with higher limits available

Heat Transfer Area

Minimum: 50 sq. ft. / 5 sq. m .

Maximum: 6200 sq. ft. / 600 sq. m.

Maximum Dimensions

Shell Diameter: 60" / 1500 mm.

Shell Length: 78" / 2000 mm.

Channel Spacing: 4 to 30 mm.

Designs and Codes

- ASME Section VIII Div. I
- PED / CE Mark
- Most International Codes

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SEC Heat Exchangers

SEC provides our customers with high quality products and services, intelligent solutions.

SEC is the most dependable and flexible heat exchanger resource in the world.

Our business was founded on the desire to design and manufacture the highest quality, most productive and cost efficient heat transfer solutions solutions for our customers.

High Performance - Exceptional Value is our motto

SEC Heat Exchangers has strategic supply and co-production facilities around the world.

We invite your inquiry and/or questions regarding the SEC product right for your specific application.



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