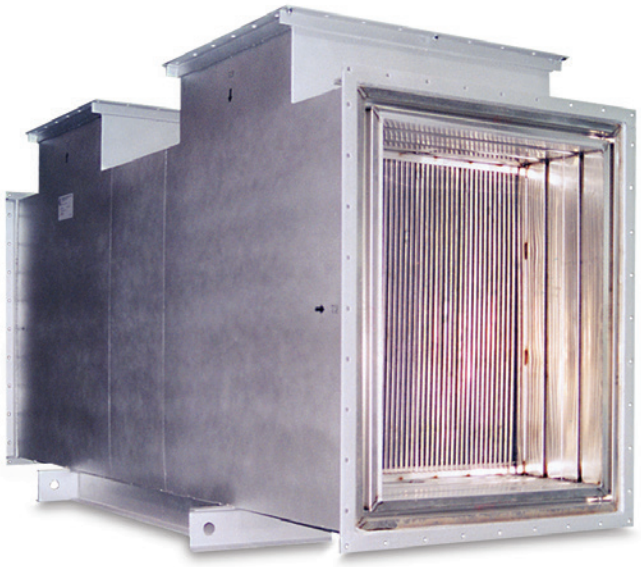
PRODUCT SHEET

Munters Thermo-Z®

High-temperature plate heat exchanger

Features

- Standard operation to 1400°F
- Effectiveness to 85%
- Pressure differentials to 28" W.C. standard
- Fully-welded construction
- Custom designs



The Munters Thermo-Z plate heat exchanger recovers heat from energy-consuming processes up to 1400°F and is typically constructed of heavy gauge alloy stainless steel, providing a smooth, continuous path for minimum air resistance. Heat transfer plates are completely seam-welded to prevent cross-contamination, and optional expansion joints enable flange-to-flange ductwork installation without the need to compensate for thermal expansion. Custom designs are offered, with effectiveness values up to 85%.

Thermo-Z offers fully adjustable plate thickness and plate spacing. Combine this with the unmatched flexibility in materials of construction and flow patterns, and Thermo-Z is the obvious choice for your high-temperature heat recovery application.

To meet unique performance or configuration requirements, multiple flow patterns are available. For harsh environments, the Thermo-Z can be integrated with a tubular heat exchanger (Thermo-T®) to provide the ultimate in effectiveness, reliability and value.

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Construction

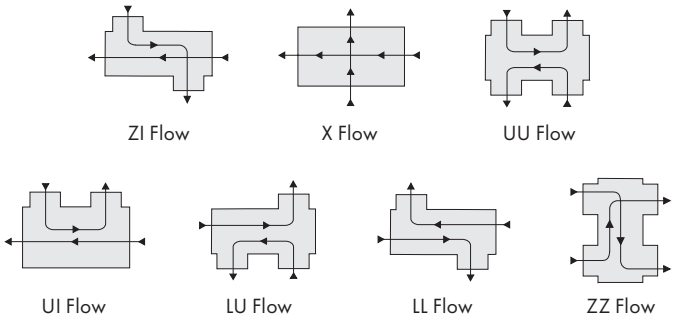
The Thermo-Z heat exchanger is designed and constructed for an industrial environment. Proper material selection is crucial to the life of a heat exchanger. Typically, Thermo-Z is constructed with heavy gauge 304L, 316L, or 309S stainless steel plates that provide a smooth, continuous path for minimum air resistance. These materials provide superior performance in high temperature or corrosive environments. Optional materials are available to meet specific needs.

The heat transfer plates are completely seam welded to ensure against cross-contamination. Spacing is achieved with raised and depressed truncated conical dimples, providing uniform plate pitch. The height of these dimples can be varied at the time of manufacture to establish the desired plate spacing necessary to meet exact performance requirements.

The inner casing is constructed of the same material as the heat transfer matrix. It is welded to the matrix at certain peripheral locations to assure an air-tight seal.

Applications

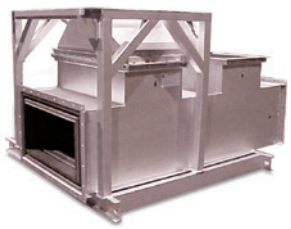
- Catalytic & thermal oxidizer heat recovery 1st & 2nd stage
- Transfer process exhaust to process make-up air
- Cooling process air prior to baghouse
- Rotary kiln
- Waste process heat to plant make-up air



Standard construction

- All-welded heat transfer matrix (standard 0.030 inches thick)
- Standard 0.5-inch plate spacing
- All-welded casing (minimum 0.105 inches thick)
- 2" x 2" x 1/4" pre-punched flange connections
- Highly effective counterflow pattern
- Ready to be field installed and insulated

Custom-engineered construction

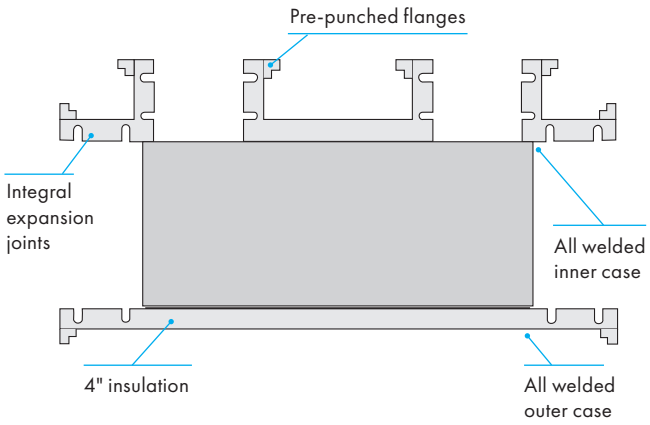


- Broad selection of materials
- Insulated double-wall construction with integral thermal expansion joints
- Seven airflow patterns
- Designed to meet user requirements
- Complete systems
- Matrix cleaning options

Optional expansion joints with welded outer casing

Thermal stress is another major factor in high-temperature heat exchanger design. At high temperatures, Munters' integral expansion joints allow the heat exchanger matrix to expand without causing excessive stress.

The outer casing remains cool because of the layer of high-temperature insulation. Therefore, it will not expand as a result of process temperature changes. The internal casing is secured to the cold outer casing by means of integral thermal expansion joints. These joints allow the inner matrix/casing assembly to move freely without undue forces being imposed on it by the rigid, cool external casing. The heat exchanger (with its cold flanges) can be installed flange-to-flange to the ductwork without the need to compensate for the thermal expansion of the heat exchanger.



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