



Thermo-Z™ High Temperature Plate Heat Exchanger

Features

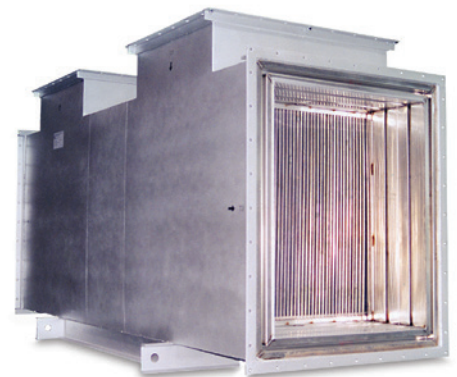
- Standard operation to 1400°F
- Effectiveness to 85%
- Pressure differentials to 28" W.C. standard
- Fully-welded construction
- Custom designs

Thermo-Z™ High Temperature Plate Heat Exchanger

The Munters Thermo-Z™ plate heat exchanger recovers heat from energy-consuming processes up to 1400°F. Thermo-Z™ 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.



Thermo-Z™ Heat Exchanger

Thermo-Z™ 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.

Thermo-Z™ Standard and Custom Engineered Construction

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 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



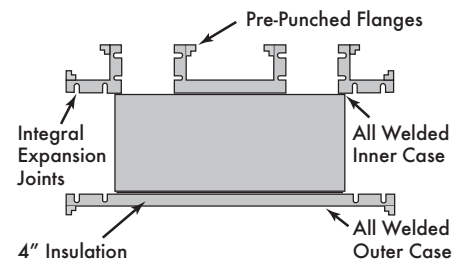
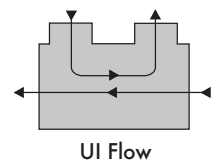
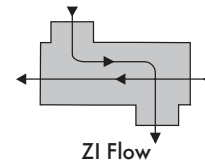
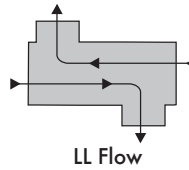
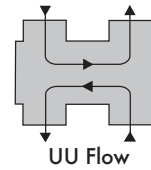
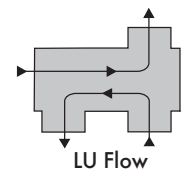
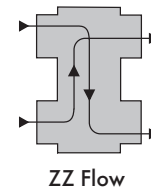
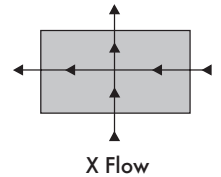
Optional Expansion Joints With Welded Outer Casing

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.

Thermo-Z™ Applications

- Catalytic & thermal oxidizer heat recovery 1st & 2nd stage
- Transfer process exhaust to process makeup air
- Cooling process air prior to bag house
- Transfer process exhaust to process makeup air
- Rotary kiln
- Waste process heat to plant makeup air



Australia Phone +61 2 8843 1580, serviceair@munters.com.au Austria Phone +43 1 6164298-0, service.dh@munters.at Belgium & Luxembourg Phone +32 2 240 6868, service.dh@muntersnv.be Brazil Phone +55 41 3317 5050, munters@com.br Canada Phone +1 905 858 5894, dhinfo@munters.com China Phone +86 10 8041 8000, serviceair@munters.cn Czech Republic Phone +420 544 211 434, servicecz@munters.de Denmark Phone +45 4495 3355, service.dh@munters.dk Finland Phone +358 40 186 3074, service.dh@munters.fi France Phone +33 1 3411 5757, service.dh@munters.fr Germany Phone +49 40 87 96 90-0, service.dh@munters.de India Phone +91 20 6681 8900, serviceair@munters.in Italy Phone +39 0183 521 377, service.dh@munters.it Japan Phone +91 3 5970 0021, serviceair@munters.jp Korea +82 2 761 8701, serviceair@munters.co.kr Mexico Phone +52 722 270 4029, servicehm@munters.com Netherlands Phone +31 172 43 32 31, service@munters.nl Poland Phone +48 58 305 35 17, service.dh@munters.pl Singapore Phone +65 6744 6828, serviceair@munters.com.sg South Africa Phone +27 11 971 9700, info@munters.co.za Spain & Portugal Phone +34 91 640 09 02, service.dh@munters.es Sweden & Norway Phone +46 8 626 6300, service.dh@munters.se Switzerland Phone +41 52 3438886, service.dh@munters.ch Thailand Phone +66 2 6422 6703, serviceair@munters.com.sg Turkey Phone +90 216 548 1444, serviceair@munters.com.tr UAE +971 4881 3026, middle.east@munters.com United Kingdom & Ireland Phone +44 1480 432243, service.dh@munters.co.uk USA Phone +1 800 843 5360, dhinfo@munters.com Vietnam Phone +84 8 3825 6838, vietnam@muntersasia.com



Munters Corporation

Tel: (800) 843-5360 E-mail: dhinfo@munters.com
www.munters.com