

HIGH TEMPERATURE ENERGY RECOVERY PRODUCTS OVERVIEW



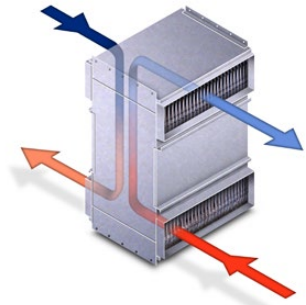
High-efficiency air-to-air
energy recovery solutions



For customers seeking to recover energy in high temperature applications, Munters offers a complete line of high efficiency air-to-air energy recovery solutions:

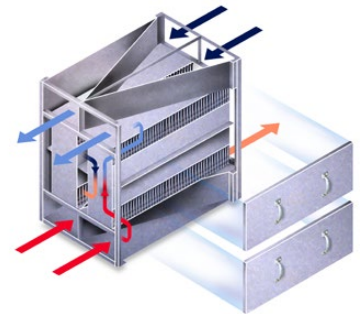
Z-DUCT® Series 74

This series features the basic building block found in all Z-Duct heat recovery systems. These economical units include built-in drains and removable cleanout panels. All units, which can be field installed in multiples to meet specific CFM requirements, have a nominal flow rate of 1000 CFM and can be fabricated from various materials to enable operation to 400°F.



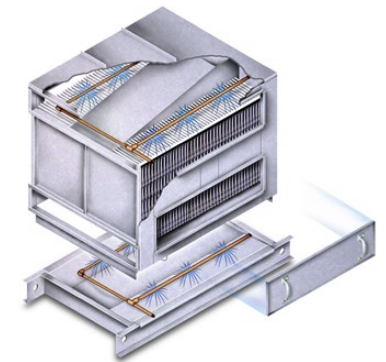
Z-DUCT® Series 75

This series features a modular designed counterflow air-to-air energy recovery unit with complete separation between air streams. Removable cleanout panels provide easy access to the heat transfer medium for inspection and cleaning. An optional automatic water-wash system results in years of maintenance-free operation. Available with nominal flow ratings from 4,000 to 10,000 CFM and can be fabricated from various materials to enable operation to 400°F.



Z-DUCT® Series 85

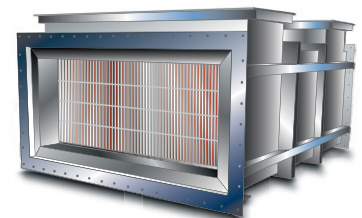
This series features a modular designed counterflow air-to-air energy recovery unit which is designed to recover energy from a process with particulate laden exhaust. Standard features include removable cleanout panels for easy access to the heat transfer medium for inspection and cleaning and a fully welded sloped drain pan with a 3" drain connection. The standard options for double wall insulated construction and an industrial water-wash system result in years of maintenance-free operation. Available with nominal flow ratings from 4,000 to 30,000 CFM and can be fabricated from various materials to enable operation to 400°F.



Thermo-Z®

High Temperature Air-To-Air Heat Exchanger

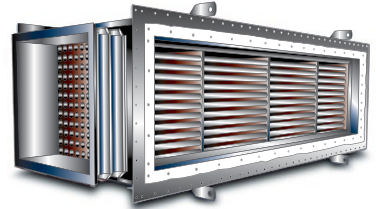
Thermo-Z is a welded plate heat exchanger, custom designed to recover energy from processes up to 1400°F. Energy can be recovered and returned as process make-up air, used to preheat combustion air, or used for plant or office heating. Factory tested for .01% max leakage at standard 20" W.C. differential pressure rating. Customized for each application with variable plate sizes and spacings, flexible materials of construction, and seven (7) flow patterns to simplify ducting. Standard options include 4" thermal insulation and integral expansion compensation.



Thermo-T[®]

High Temperature Tubular Heat Exchanger

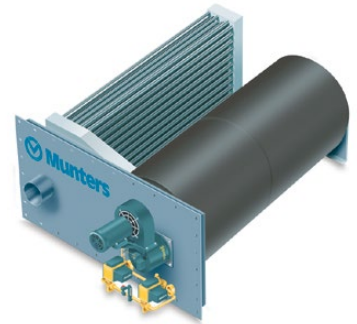
Thermo-T is a welded tubular heat exchanger, custom designed to recover energy from processes up to 1600°F. Energy can be recovered and returned as process make-up air, used to preheat combustion air, or used for plant or office heating. Factory tested for .01% max leakage at standard 20" W.C. differential pressure rating. Customized for each application with variable tube sizes and spacings, flexible materials of construction, and three (3) flow patterns to simplify ducting. Standard options include 4" thermal insulation and integral expansion compensation. The Thermo-T can be integrated with a Thermo-Z unit to provide the ultimate in effectiveness, reliability, and value.



Vari-Max[®] OTH

Once-Through Heater

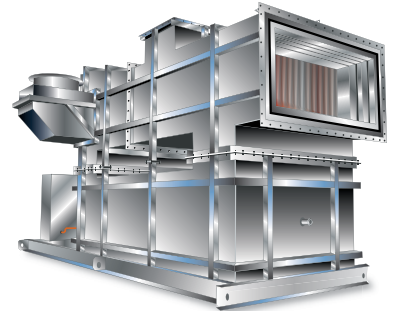
The Vari-Max OTH is a high-efficiency, industrial, indirect-fired gas heater used to heat process air streams without contaminating the air with the products of combustion. The OTH is particularly useful for recirculating ovens, and industrial processes with moderate temperature rises. The counterflow configuration, four-pass design and optimized secondary tubular heat exchanger result in efficiencies up to 85%. The heater uses a Maxon[®] industrial gas burner for clean, reliable combustion. Standard OTH heat exchangers are constructed of heavy-duty stainless steel for strength, durability, and corrosion resistance. Units are available with FM or IRI certified gas trains and complete heater controls. Munters can also provide complete heating packages, including filters, dampers, fans, and duct sections or separate housings. The OTH is available in six (6) pre-designed sizes which offer 150°F max temperature rises and exit temperatures up to 600°F.



Vari-Max[®] IFRG

Indirect-Fired Recirculating Gas Heater

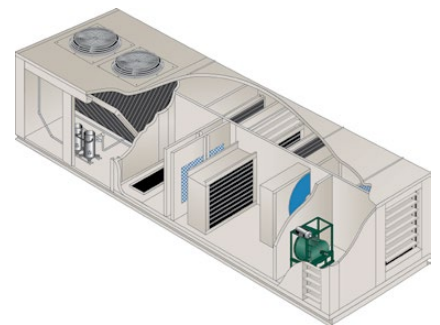
The Vari-Max IFRG is an ultra-high-efficiency, industrial, indirect-fired gas heater used to heat process air streams without contaminating the air with the products of combustion. The IFRG is particularly useful for spray dryers and industrial processes with high temperature rises. The counterflow heat exchanger with hot side recirculation results in efficiencies of 90%+. The energy savings results in a short payback with savings year after year. The heater uses a Maxon[®] industrial gas burner for clean, reliable combustion. Standard IFRG features include stainless steel heat exchanger, FM or IRI certified gas trains, and complete heater controls. The IFRG is custom designed for each application with 1000°F max temperature rises and exit temperatures up to 1200°F. To further increase efficiency, an optional secondary heat exchanger can be added to capture the energy from the exhaust air and use that energy to preheat the incoming combustion air.

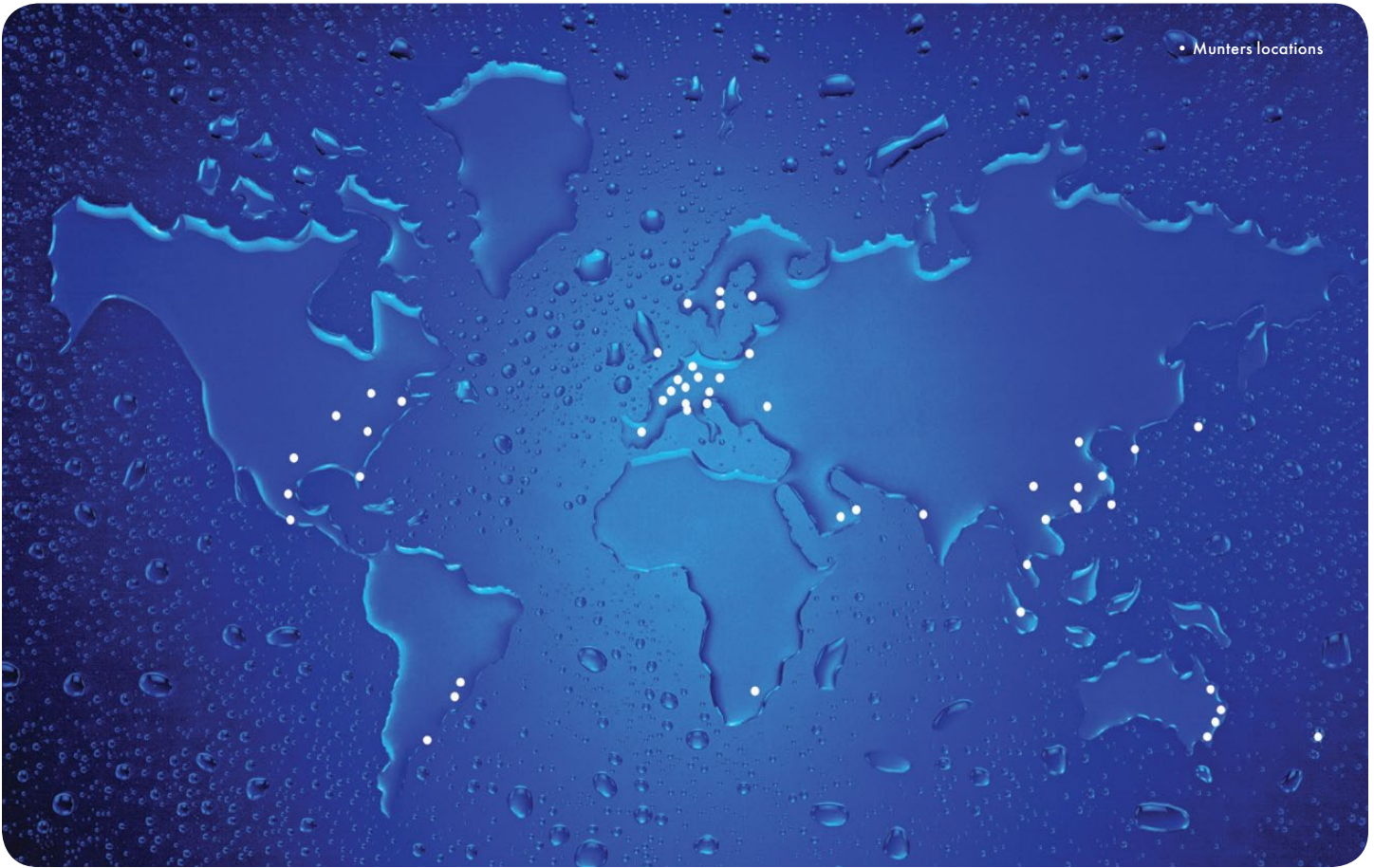


Wringer[®]

Dehumidification System

The Wringer Series is a packaged mechanical dehumidification unit designed to supply clean process air at a specific flow and moisture level. It incorporates a heat exchanger to reduce the energy required to dehumidify the air. Wringers are normally employed when the supply air dew point requirement is above 40°F. Wringers use approximately 30% less energy than conventional dehumidification systems and provide free reheat. Wringers can incorporate integral refrigeration or utilize chilled water for dehumidification. Options such as auxiliary heating, special filtration, and DDC controls are available.





Munters is a global leader in energy efficient air treatment solutions.

Munters manufactures engineered products that can economically control humidity and temperature, provide energy recovery, and/or utilize direct or indirect evaporative cooling for comfort, process and environmental protection.

With permanent or temporary solutions, Munters offers a wide variety of options to meet specific climate, application and budget requirements.

Munters has net sales approaching \$1 billion USD with more than 20 manufacturing facilities across the globe and sales offices in over 30 countries.

Munters employs approximately 2,900 people worldwide.

For more information see www.munters.us

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