

# A HEAT RECOVERY HERO



**Honeywell**

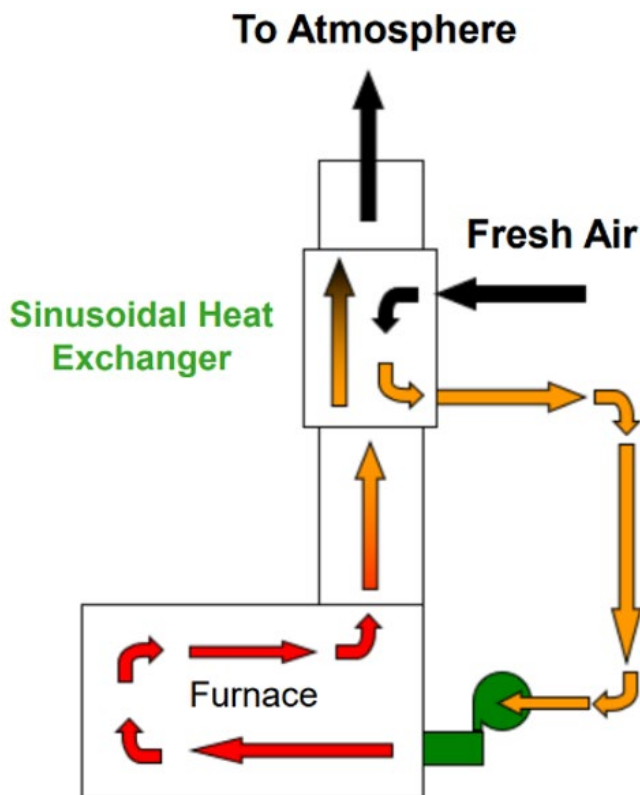
# The benefits and results of implementing a sinusoidal heat exchanger into existing thermal processes include overall performance gains and sustainable progress.

A sinusoidal heat exchanger isn't a one-result solution; because of its increased surface area, turbulent flow and ability to reduce fouling and hotspots, this critical component in any thermal process can enable maximum heat-transfer efficiency for longer periods of time, lower pressure drops and instill uniform heating to keep product quality high. And, it can be configured to work seamlessly in various thermal processes with unique, differing needs.

Above all, a sinusoidal heat exchanger promotes and facilitates fuel savings, which are of acute importance in a time of sustainable thermal transformation. This solution helps capture waste heat from initial processes and then reuses it, injecting it back into processes to preheat fluids rather than relying on additional fuel. A sinusoidal heat exchanger also makes it so that lower temperatures can still achieve first-rate results — lower temperatures mean less fuel is required.

**Remediating fuel inefficiencies, capturing and reusing waste heat and prioritizing sustainability (reducing emissions, improving energy conservation) can be done simultaneously with one innovative thermal solution and one experienced, industry-leading partner.**

**The sinusoidal heat exchanger use case below captures the annual fuel savings and other benefits of one customer who implemented this solution into its existing thermal process:**



**HOT FLOW  
15,000 SCFM  
AT 350°F**

**COLD FLOW  
15,000 SCFM  
AT 60°F**

**PREHEATED AIR  
TEMPERATURE  
273°F**

**HEAT RECOVERED  
1.2 MM BTU/HR**

**NATURAL GAS  
SAVINGS PER YEAR  
\$4/MM BTU  
= \$40,320  
= 590 tCO<sub>2</sub>  
REDUCTION**

## For more information

<https://automation.honeywell.com/us/en/solutions/thermal-solutions>

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