

Why mess around  
with a *complicated*  
energy saving plan...

# When you can get the

*Recover more waste heat  
at lower temperatures to  
achieve system efficiency  
of up to 96 percent ... and  
savings you might not  
have thought possible.*

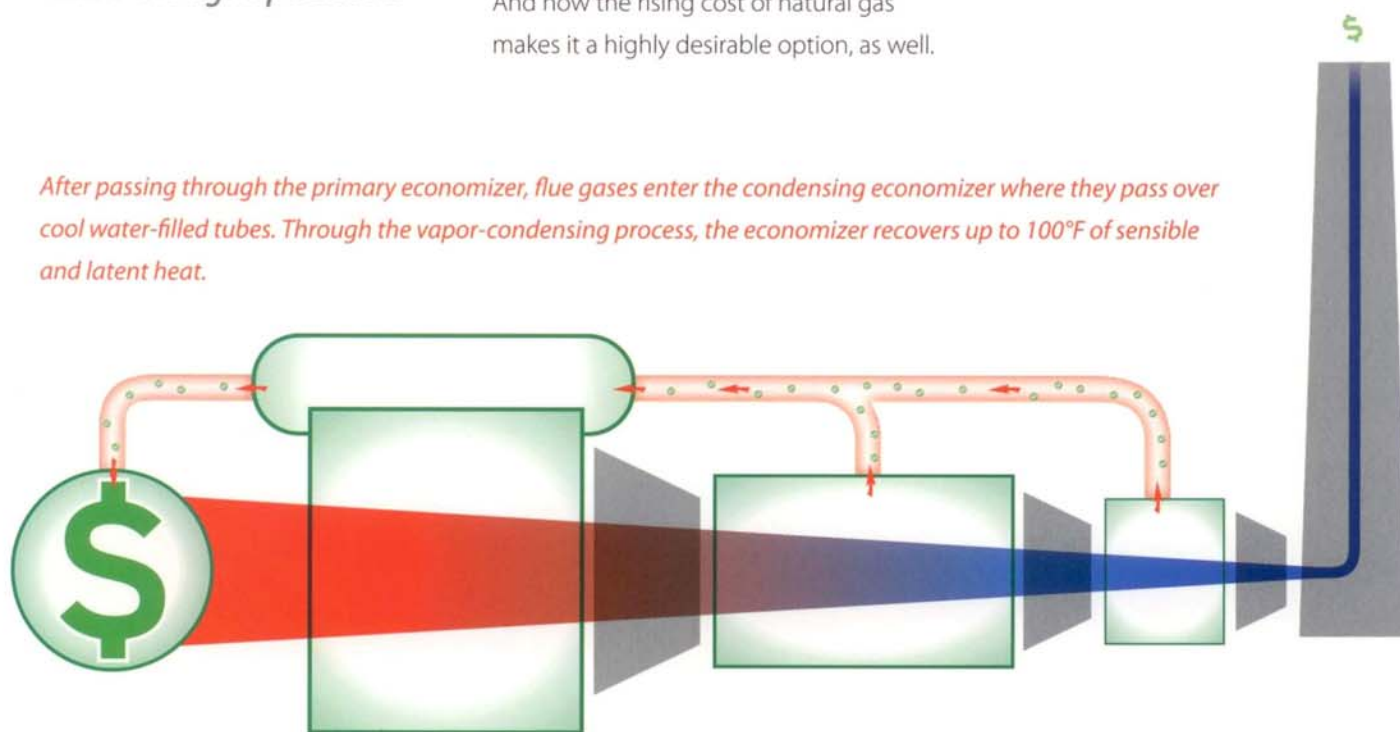
## **Here's the story.**

In the science of heat recovery, the goal has always been to capture as much wasted energy as possible. But for years, accepted wisdom had it that you could only go so far before the effects of low temperature heat transfer on equipment and infrastructure made potential returns not worth probable costs in maintenance and repair. Eventually, though, a move to clean-burning natural gas made the introduction of high-efficiency condensing economizers a viable energy saving option. And now the rising cost of natural gas makes it a highly desirable option, as well.

## **A better way.**

In a natural gas-fired boiler, flue gas can be cooled by a traditional economizer to about 250°F. But through the use of water-filled tubes, the condensing economizer cools flue gases to below their dew point of 135°F, netting an additional 100-plus degrees of recovered heat. This reclaimed energy represents not only sensible heat from flue gas, but also latent heat bound up in water vapor, heat that constitutes about nine percent of original fuel energy content.

*After passing through the primary economizer, flue gases enter the condensing economizer where they pass over cool water-filled tubes. Through the vapor-condensing process, the economizer recovers up to 100°F of sensible and latent heat.*





# condensed version?

It all begins with  
**GREENENGINEERING™**.

E-Tech heat recovery solutions produce efficiencies of up to 95 percent from your fuel dollar, while reducing pollutants in your exhaust. And we're constantly moving forward with new ideas to serve more industries with greater efficiency. So "green" is what your company saves ... and how it behaves.



# condensing economizer?

## *A better design.*

By cooling gases below their dew point, the condensing economizer captures latent heat that would otherwise be exhausted into the atmosphere. To ensure that our units can weather the long-term effects of the condensing process, we fabricate them from highest quality stainless steel and build them to standards that meet or exceed ASME requirements. The result is a top-quality condensing economizer that will deliver reliable, trouble-free service and still pay for itself in as little as one year.

## *A twofold benefit.*

When you add an E-Tech condensing economizer, you get benefits that go



well beyond savings on your energy costs. That's because besides recovering waste heat, a condensing economizer also helps to reduce CO<sub>2</sub> emissions from your plant. Given the current legislative trend toward tighter restrictions on

carbon emissions, this could be even more meaningful in terms of your company's bottom line. In fact, a condensing economizer could save on EPA-mandated renewable energy certificates (RECs) and offsets.

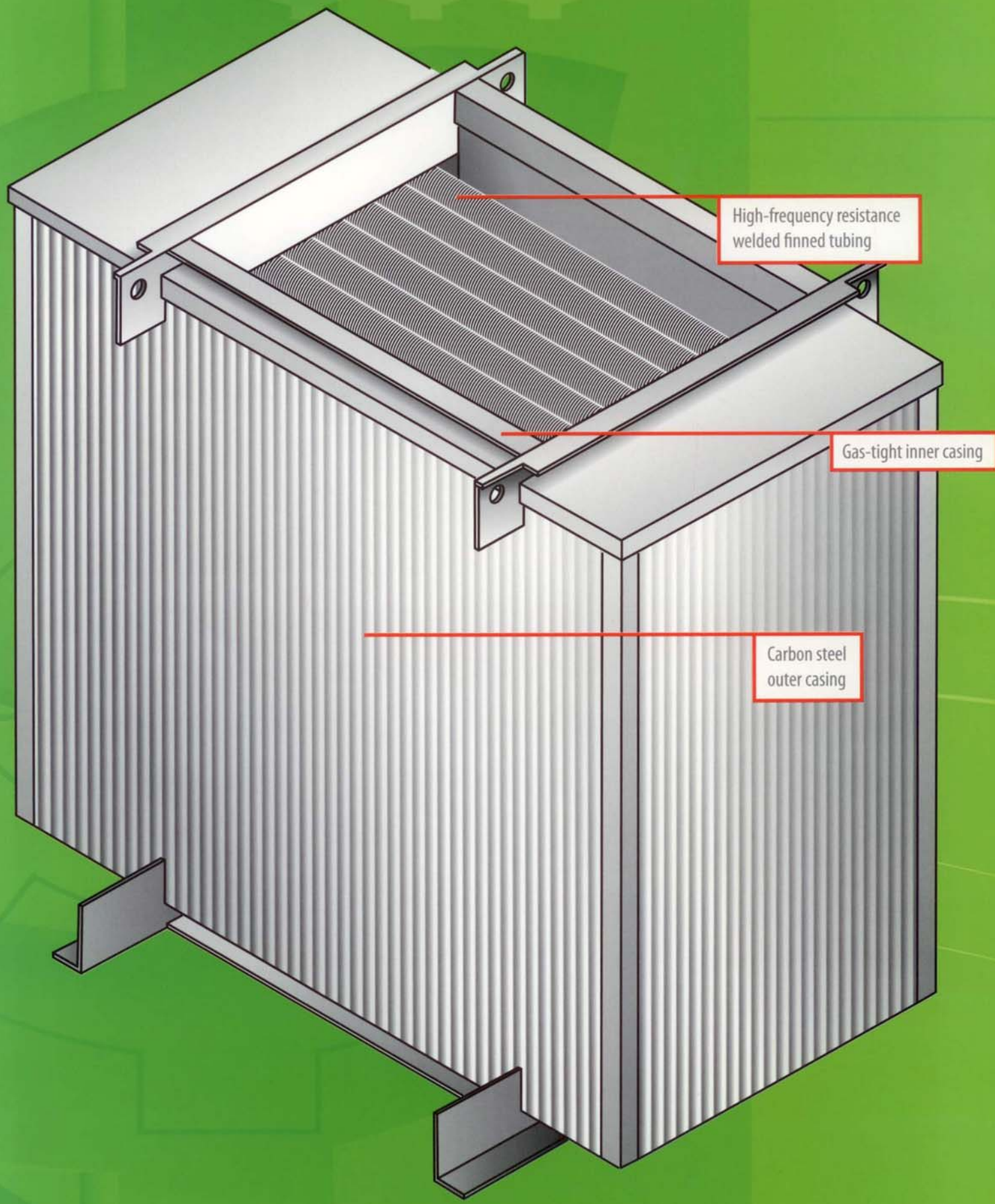


At E-Tech, we've been engineering precise custom solutions for our customers' waste heat recovery needs for more than 30 years, producing literally thousands of designs for virtually every type of application.

To ensure that finished products reflect our exacting standards, we contract with hand-picked, exclusive subcontractors we know we can rely upon to maintain our exacting specifications and standards throughout manufacturing, inspection and shipment.

This thorough process ensures that whether you purchase a single component or a complete system, your E-Tech waste heat recovery equipment will meet your needs effectively and reliably for years to come.

**918-665-1930 | [www.e-techinc.com](http://www.e-techinc.com)**



High-frequency resistance  
welded finned tubing

Gas-tight inner casing

Carbon steel  
outer casing





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