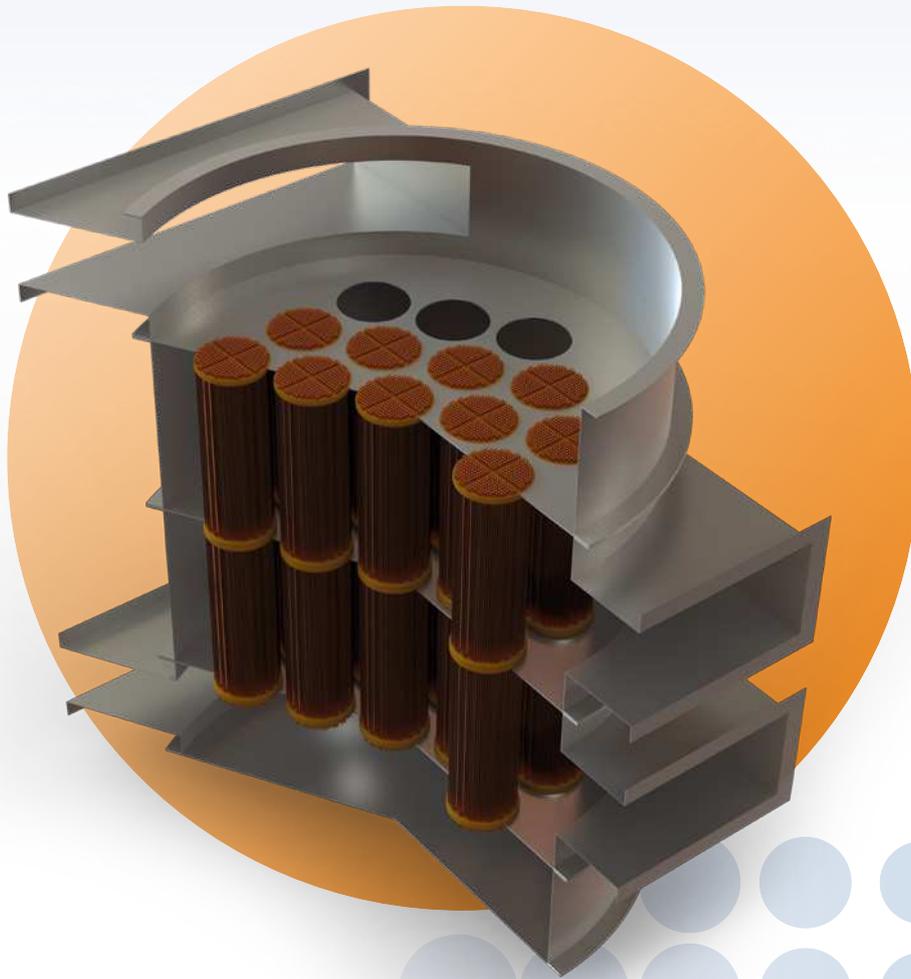




HeatMatrix®

TURNS WASTE HEAT INTO PROFIT



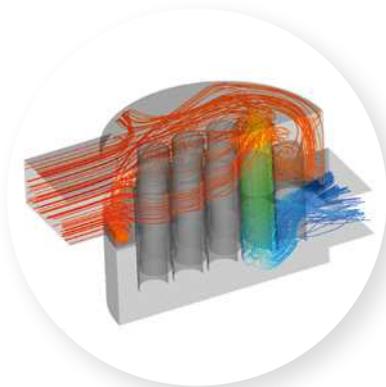
HeatMatrix® LUV0

HeatMatrix® LUVO

> Have you checked your stack temperatures recently?

The majority of the industrial stacks have high exit temperatures, which indicates a valuable opportunity for saving energy. With the right heat exchanger the lost energy can be recovered by integrating hot (flue) gas with cold (combustion) air. Efficiency improvements of up to 20% can be realized, which offers a significant energy cost and carbon emission reduction.

The HeatMatrix LUVO is a new generation 'gas/gas' heat exchanger that enables heat recovery from corrosive and fouling gas streams. This heat exchanger consists of lightweight corrosion resistant plastic modules instead of heavy and costly metal components. The counter current flow configuration recovers 20% more energy compared to existing cross flow exchangers and the low weight construction enables easy installation in existing plants.



> LUVO applications

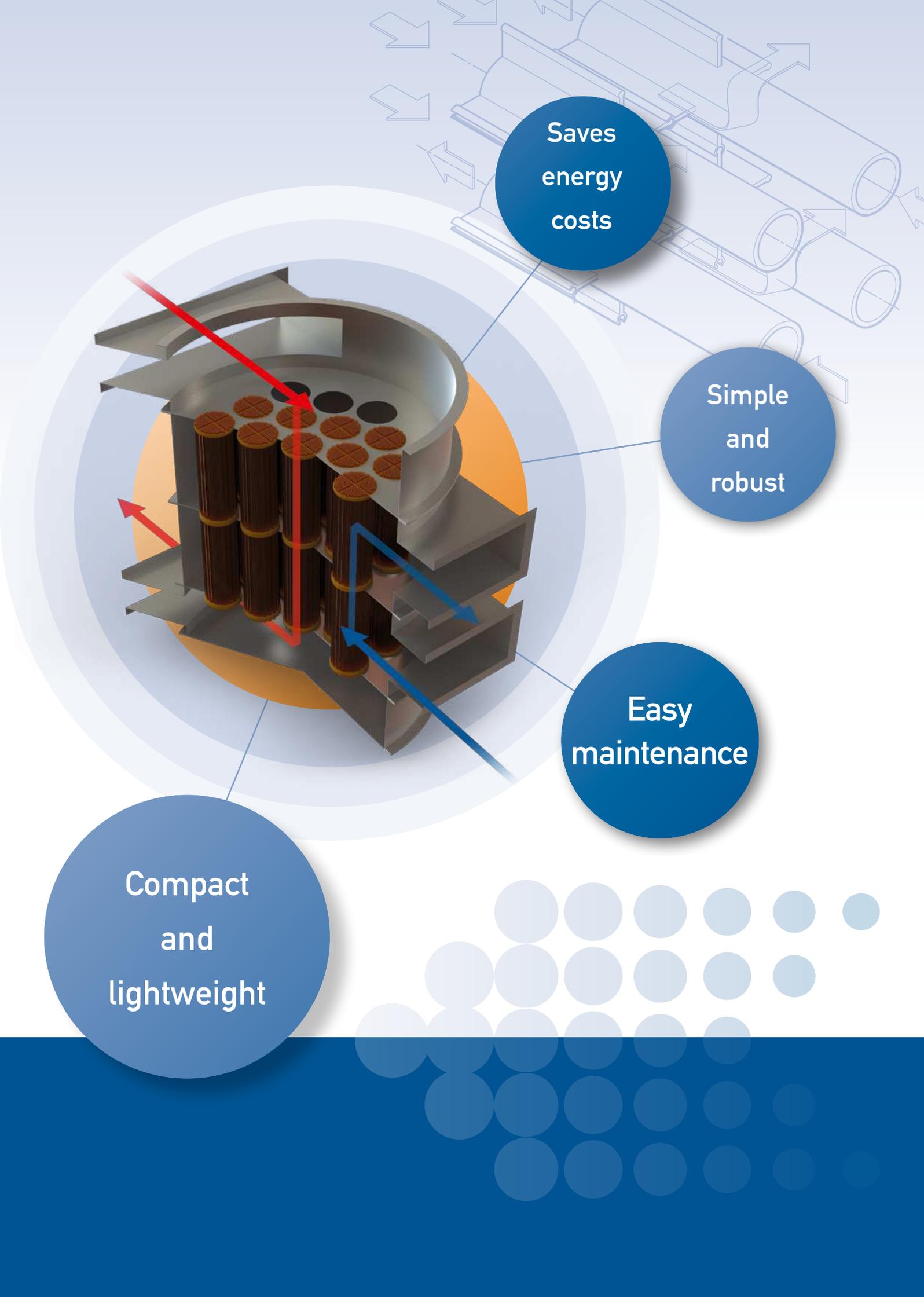
- Industrial steam boilers
- Refinery & petro chemical furnaces
- Industrial drying processes (e.g. spray towers)
- Incinerators (e.g. regenerative thermal oxidizer RTO)
- Biomass and biogas fired boilers



> LUVO properties

- 20% higher efficiency than existing LUVO's
- More compact than existing LUVO's
- Lightweight
- Corrosion resistant
- Easy maintenance



A 3D cutaway diagram of a multi-tube boiler system. The diagram shows a cylindrical shell with multiple vertical tubes inside. Red arrows indicate the flow of water or steam through the tubes. Blue arrows indicate the flow of water or steam through the shell. The diagram is surrounded by four callout bubbles, each containing a benefit of the system. The background features a faint technical drawing of a boiler with arrows indicating flow directions.

Saves
energy
costs

Simple
and
robust

Easy
maintenance

Compact
and
lightweight



> HeatMatrix® LUVO

The HeatMatrix LUVO consists of plastic internals contained in a stainless steel or coated carbon steel frame. The heat exchanger is resistant to high temperatures and acidic components such as sulphuric acid and hydrochloric acid. Its size is equivalent to a 20 ft or 40 ft container [frame] and the complete assembly is pre-insulated. In order to provide for easy maintenance, retractable tube bundles are accessible via the top of the heat exchanger.

Flue gas volumetric flowrate [Nm ³ /hr]	LUVO Type	T _{design} [°C]	P _{design} [mbar]	ΔP _{typical} [mbar]	Length [mm]	Width [mm]	Nozzle size [mm]
5,500	LUVO 9	200	100	5	2,600	1,300	300 x 500
11,500	LUVO 19	200	100	5	2,600	1,850	300 x 800 450 x 800
18,500	LUVO 31	200	100	5	2,600	2,300	300 x 1,300 450 x 1,300

Contact information

Please visit our website for more information and the online business case calculator or contact a HeatMatrix engineer for professional advice on your energy saving opportunity.

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