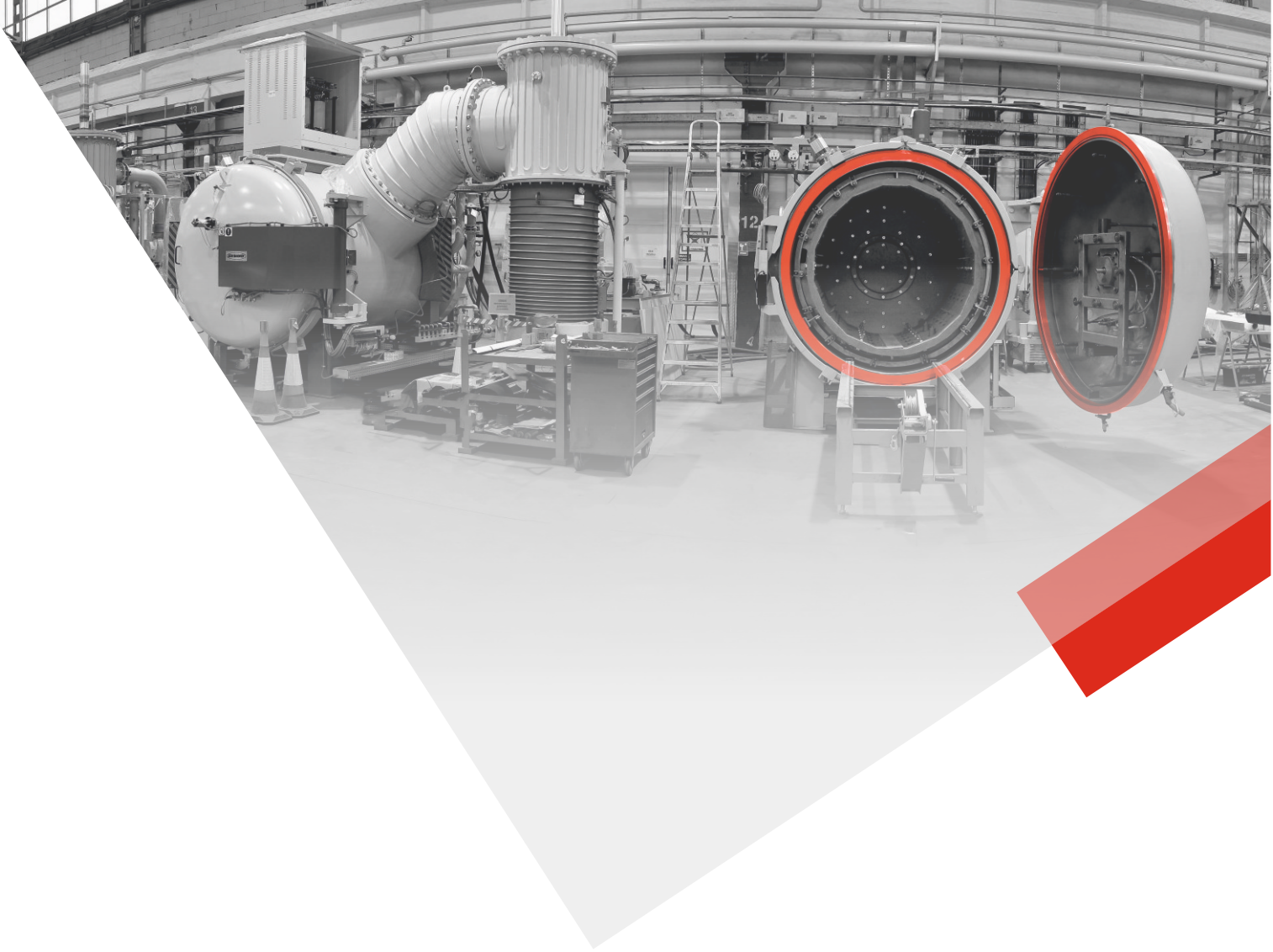


SECO/WARWICK



HEAT RECOVERY FROM AN INDUSTRIAL FURNACE

Increasing the plants or hardening plant's entire production process energy efficiency.



HEAT RECOVERY FROM AN INDUSTRIAL FURNACE



BENEFITS

- / Reduced overall energy costs in the plant, by reusing it in other production processes.
- / Becoming independent of gas supplies for heating buildings and heating domestic hot water.
- / Reduction of CO₂ emissions.
- / Avoiding severe penalties related to this.
- / Building the image of a company which cares for the environment and reduces its carbon footprint.

The green trend in the economy is becoming increasingly visible, which is why our customers are successively looking for solutions allowing them to save utilities and thus show that they are using green technology. They will not replace the furnace due to the cost, so an economical solution may be to equip the hardening plant with an installation allowing the use of waste heat produced.

This process involves capturing the heat generated during heat treatment processes and using it to power other production processes, heating rooms and hot utility water. This not only helps reduce energy costs, become independent from gas supplies, but also brings benefits to the environment, e.g., reducing CO₂ emissions. It also allows to avoid severe penalties and improve the company's image.



RECOVERED HEAT APPLICATION

- / Heating buildings (halls, facilities).
- / Heating hot water.
- / Waste heat recovered in the heat treatment process can be used for other production processes conducted in the plant, e.g., in washing equipment.
- / Conversion of heat into cold for cooling rooms.

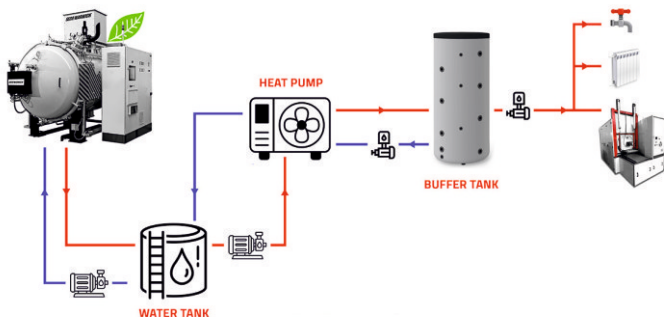
Heat recovery from an industrial furnace involves recovering and reusing energy generated during metal heat treatment.



PURPOSE

Increasing the plants or hardening plant's entire production process energy efficiency.

Energy recovery from heat treatment processes is possible for most furnaces. Considering the SECO/WARWICK's activity profile, we are currently focusing on medium and small furnaces, and in particular vacuum furnaces. Until recently, these types of furnaces were not considered in terms of energy recovery possibility. Current trends in energy saving have forced us to find appropriate ecological solutions also for these units.



The process of implementing a heat recovery installation is like other technical tasks of this type. The implementation time depends on the designed installation's size and the system components' complexity.



PROCESS STAGES

1. Detailed technical assessment of the current state together with collecting the necessary data.
2. Development of a technical solution concept together with the potential benefits' and implementation costs' estimate.
3. Deciding on implementation - order.
4. Completing the necessary installation elements, establishing a work schedule.
5. Installation at the plant, start-up, tests.





SECO/WARWICK Invention Meets Reliability

SECO/WARWICK is the 1st choice supplier
of solutions for heat treatment and metallurgy.

We create innovative products that provide our customers with reliable, safe and environmentally friendly solutions for heat treatment and metallurgy and ensure the economic efficiency of their businesses. Expertise includes end-to-end solutions in 5 categories: vacuum heat treatment, atmosphere, and aluminum thermal processing, controlled atmosphere brazing of aluminum heat exchangers and vacuum metallurgy.

SECO/WARWICK Group, with 8 companies located on 3 continents, has customers in nearly 70 countries with more than 4000 deployed solutions. The company provides standard or customized state-of-the-art heat processing and metallurgy equipment and technologies to leading companies in the following industries: automotive, aerospace, electronics, tooling, medical, recycling, energy including nuclear, wind, oil, gas, solar and production of steel, titanium, and aluminum.

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