

# RECP Best Practices Catalogue

*Recovery and reuse of thermal energy  
from annealing furnaces*

*Developed within the framework of MED TEST II*



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



switchmed



The SwitchMed Programme is  
funded by the European Union

# Best Practice - Recovery and reuse of thermal energy from annealing furnaces

**SECTOR:** Metal, electrical and motor vehicle parts

**SUBSECTOR:** Manufacture of other fabricated metal products

**CATEGORY** Process control or modification

**APPLICABILITY** Process

**COMPANY SIZE** 200



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# Best Practice - Recovery and reuse of thermal energy from annealing furnaces

## Description of the Problem (Base Scenario):

Thermal energy released from fumes from the annealing furnaces without being recycled, whereas the drawing process consumes great amounts of power (40% of total consumption)

## Description of the Solution

The recovery and reuse of thermal energy of fumes from annealing furnaces in the wire drawing process to compensate for the use of electric energy which currently accounts for 40% of overall power consumption



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# Best Practice - Recovery and reuse of thermal energy from annealing furnaces

## Economic Gains

€ 254,376

## Environmental Gains

- Reduction of 3,918 MWh of power or 40% of annual power consumption
- Reduction of 2,550 tons CO<sub>2</sub> or 27.35% of the annual amount of CO<sub>2</sub> emissions

## Health and Safety Impact

-



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# Best Practice - Recovery and reuse of thermal energy from annealing furnaces

<b>Capital Investments &amp; Financial Indicators</b>	€ 20,000 Time for Return on Investment: 1 month
<b>Suppliers Information</b>	-
<b>Other Aspects</b>	-
<b>Implementation</b>	Ongoing



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