

Indus3Es Absorption Heat Transformer (AHT) ASSESSMENT TOOL

Project:

Industrial Energy and Environment Efficiency

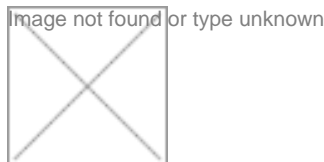
Indus3Es – Industrial Energy and Environment Efficiency

The Indus3Es project, received funding in the frame of Horizon 2020 TOPIC EE-18-2015: New technologies for utilization of heat recovery in large industrial systems, considering the whole energy cycle from heat production to transformation, delivery and end use.

Indus3Es SYSTEM is aimed to recover and revalue non-recovered low-exergy surplus heat in energy intensive industrial processes. Indus3Es System will upgrade low temperature waste heat streams to process heat streams at higher temperature levels and then use them in internal industrial process, reducing primary energy consumption of the industry.

For further information please visit <http://www.indus3es.eu/>

This project has received funding from the European Union's Horizon 2020 Research and Innovation program under Grant Agreement n° 680738.



Sector:

Cement

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Engineering

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Summary:

The Indus3Es Assessment tool allows any potential planner or user to make a first assessment of the technical and economic potential of the installation of an absorption heat transformer (AHT)

based heat recovery system under certain boundaries. It provides a predesign report including potential costs and energetic, emissions and economic savings that can be used to decide if the system is of interest.

The tool is based on a simplified thermodynamic model for the capacity and efficiency calculation of absorption known as the characteristic equation. Additionally, the calculation engine includes equations for the calculation of the electric parasitic power consumption and a cost estimation model for the AHT system.

Theme:

Use of heat recovery - EE18-2015

Keywords:

Absorption Heat Transformers, heat, energy, industrial processes

Type:

Other

Software

Resources

Link:

Indus3Es AHTs Assesment Tool

Energy-Intensive Indus3Es need to reduce their primary energy consumption in order to increase their effectiveness. This would lead to an increase in their competitiveness and a reduction of their product's embedded energy and carbon footprint. Absorption Heat Transformers (AHT) are designed to recover and revalorize industrial waste heat below 130°C. AHT revalorizes almost 50% of recovered waste heat, boosting the temperature and becoming usable in the industrial process again.

The aim of this tool is to study the feasibility to implement Indus3Es AHT technology in your industrial process! In this tool, you can enter the characteristics of your waste heat streams and calculate the operation and implementation costs of AHTs in your processes. The tool will ask you for your process waste heat information trough several steps. You will find information for every asked parameter. Please, fill in the information for the requested parameters, at the end of the process a report will be automatically created that details your data and provides a feasibility study on the implementation of AHTs in your process.

The tool is available at the following link <https://api-indus3esweb.azurewebsites.net/> and also surfing the Indus3Es project website <http://www.indus3es.eu/>.

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