

# Factsheet for Heat Pump Solutions in Industry

Industrial heat pumps<sup>1</sup> can significantly contribute to decarbonization of low to medium temperature heat supply. Industrial heat pumps can reach **up to 180-200°C** and are part of the European clean tech sector. Further R&D is ongoing, with supply temperatures of up to 300°C expected by 2035. Industrial heat pumps can for instance involve reusing waste heat from processes, exhaust air from buildings and infrastructure or generate renewable energy from ambient sources such as air, water, sewage and geothermal. Furthermore, these heat pumps provide a reliable solution to electrify heat. As a renewable alternative, industrial heat pumps can replace oil and gas for industrial heating.

With over 60% of heat pumps installed in Europe also being **manufactured in Europe**, they represent a local and consequently reliant source for industrial heating. Furthermore, industrial heat pumps can lower energy costs significantly as they mainly use waste heat which is automatically available in most industries sectors. Today, industrial heat pumps are already used in industries like paper and pulp, wood, dairy, fruits, vegetables, paint, food, textiles.

For instance, **a paper factory** in France dries its paper pump using its own waste energy. The heat pump blasts 140 C heat to dry the paper – replacing gas. Known as TRANSPAC, it takes 70°C waste heat from the dryer and converts it into 140°C heat, which is enough to dry the paper pulp. This installation is highly energy efficient, producing four times the heat energy that it uses in electricity.

Moreover, **Biopharmaceutical firm Evotec** in Italy uses heat pumps on its way to net-zero by 2045. The heat pump functions at a high efficiency with a coefficient of performance of 4.6 at full capacity. To align with local regulations, it also features a noise reduction technology. The heat pump installed by Armstrong saves an estimated 1,604 tonnes of CO<sub>2</sub> emissions and avoiding the use of 760,000 cubic meters of natural gas every year. This will translate into a €89,000 savings per year.

In the UK, **a brewery** explores the option to use a heat pump generating high temperature for their beer production. Hepworth Brewery in West Sussex will try out a heat pump on one of its four production lines. This should cut its emissions by up to 90% and costs by up to 40%. It produces steam at temperatures of up to 130°C for the brewing process, and is the first such heat pump to be installed in the UK. In future, it could be used for the entire brewing process and allow to retire the oil boiler.<sup>2</sup>

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<sup>1</sup> European Heat Pump Association (2025).

<sup>2</sup> European Heat Pump Association (n.d.).