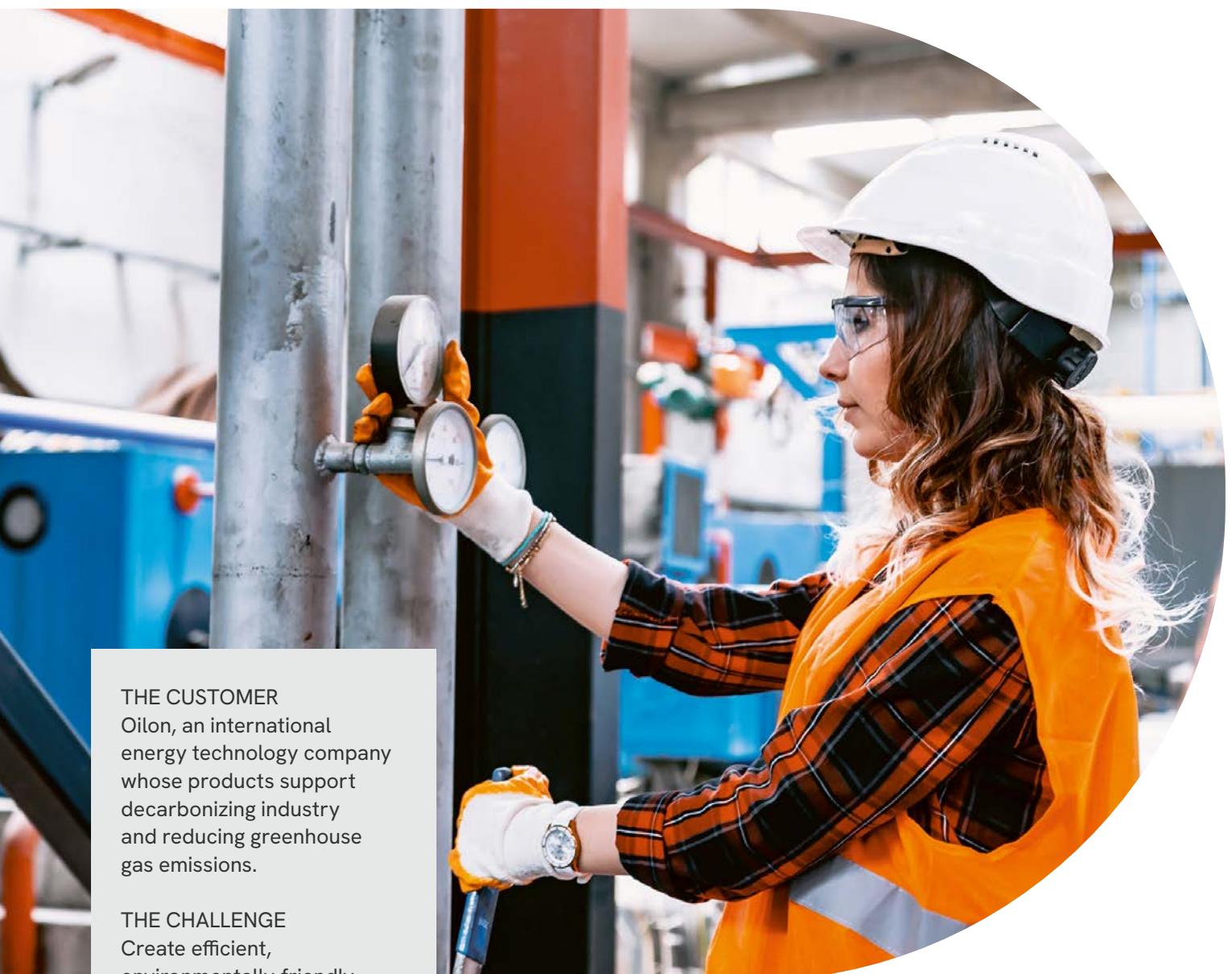


CASE STORY



THE CUSTOMER

Oilon, an international energy technology company whose products support decarbonizing industry and reducing greenhouse gas emissions.

THE CHALLENGE

Create efficient, environmentally-friendly solutions to upgrade waste heat for use in industrial processes.

THE SOLUTION

Oilon ChillHeat heat pumps utilize low-temperature waste heat to produce hot water up to 120°C.

THE HEAT EXCHANGERS

SWEP 500 and 65 models, XL-series brazed plate heat exchangers for large heat loads.

THE RESULTS

Improved efficiency through improved evaporation, condensation, subcooling, and superheating in the heat pumps.

Oilon and SWEP lead decarbonization of industrial processes in Brazil

The challenge of climate change requires action on multiple fronts, including improving the efficiency of heating and cooling systems and decarbonizing industrial processes. Spurred by new regulations, global energy producers are shifting away from fossil fuels. With the shared goal of driving sustainability in as many applications as possible, SWEP and Oilon are working together to create efficient, environmentally friendly solutions for all types of industrial processes. Oilon's ChillHeat heat pump is one such solution. Using state-of-the-art technology, ChillHeat units harvest and upgrade low-temperature waste heat to generate hot water at up to 120°C, an adequate temperature for many industrial processes. A critical part of the development process is always the pursuit of the best COP in heat generation.

Oilon technology has made a significant impact in the Brazilian industrial market, which consumed 817,000,000 toe (tons of oil equivalent) of energy in 2020, according to energy research company EPE (Empresa de Pesquisa Energética), corresponding to 9,501,710 GW of electricity. Brazilian industrial activity accounts for about 50% of the country's total energy consumption and approximately 1/5 of its GDP (Gross Domestic Product). 38% of this energy comes from fossil fuels or their derivatives, resulting in more than 120,000 tons of CO₂ emissions. In 2021 alone, Oilon ChillHeat solutions helped produce nearly 3.5 gigawatt hours of thermal power in 10 projects in South America, eliminating 695 tons of CO₂ emissions. Oilon products have already helped the pharmaceutical, automotive, and food industries to reduce and, in some cases, even eliminate the consumption of fossil fuels.



The role of SWEP BPHEs

SWEP BPHEs are key to Oilon's pursuit of efficiency and sustainability. SWEP's XL-series can improve evaporation and condensation, as well as subcooling, superheating, and other functions. SWEP's 500 unit was designed to work extremely efficiently as a high-capacity condenser in a range of systems, including in modular chillers and industrial heat pumps. SWEP's 65 unit is the perfect choice for high-capacity applications that require a particularly robust unit. By offering different plate combinations, it offers a solution for the most demanding industrial and heating applications.

Why choose SWEP?

Waste heat in the form of hot vapor, water, oil or air is a result of almost any production cycle. With SWEP brazed plate heat exchangers, this waste heat can be recovered and reused for other purposes, reducing costs and carbon emissions for both producers and end users. They make efficient use of energy, material, and space in HVAC/R and industrial applications. SWEP offers extensive expertise, the widest product range on the market, and a modular concept that lets us customize optimized solutions for almost any need. Benefits of the SWEP XL range include enhanced space optimization and improvement of equipment operating conditions, resulting in an increase in COP compared to the use of conventional heat exchangers.



Oilon heat pump.

More About Oilon

Oilon is an international energy technology company whose products support sustainable development by reducing emissions. As a 60-year-old family business, Oilon works tirelessly to preserve the environment for future generations. The company manufactures high-quality heat pump solutions that are suitable for even the most demanding industrial uses, which enable up to 100% decarbonization of industrial heating processes. They are also a pioneer in low-emission combustion technology, with decades of experience. Their goal is to promote sustainable development and set a positive example in the fight against climate change. In addition to the industrial market, Oilon is present in the service, food, pharmaceutical, commerce, dairy and energy markets.



SWEP 65 and 500.