

From challenge to advantage:

Cooling data centers in more sustainable ways

In today's digital age, the demand for data and processing is surging, leading to a rapid expansion of data centers. This growth brings increasing concerns about energy and water consumption and environmental impact, particularly regarding the cooling systems crucial for server performance, which generate tremendous waste heat which must be removed from the white space. Moreover, the rising global issue of water scarcity intensifies the need for not only energy efficient cooling solutions but also water efficient cooling solutions.

Alfa Laval offers a solution with its air-cooled heat exchanger technology, which provides efficient cooling with longer equipment longevity in a more compact space than other technologies. These aircooled heat exchangers can eliminate the need for water and refrigerants, presenting a more sustainable cooling option or can use waste water streams to provide cooling in a very compact and energy efficient footprint. Combined with Alfa Laval's other heat-exchanging products, waste heat can first be reclaimed for innovative heat reuse applications. Together, these solutions improve cooling



efficiency while helping data center operators turn waste heat into a competitive advantage while still making the most of our limited resources.

This innovative approach could revolutionize the data center sector by reducing or eliminating water usage for cooling while establishing data centers as active energy suppliers, representing a significant step toward net-zero emissions in the industry.

