

## CASE STORY



### THE CUSTOMER

Sweden-based EcoDataCenter is the European leader in high-performance computing (HPC) and AI infrastructure.

### THE CHALLENGE

Reduce operational costs and energy use, recover waste heat for combined heat and power.

### THE SOLUTION

A flexible, scalable system that uses a range of SWEP BPHEs for free cooling and heat recovery.

### THE HEAT EXCHANGERS

SWEP heat exchangers from the B220, B320 and B85 ranges are key to maximizing the energy efficiency of EcoDataCenter's Falun facility.

### THE RESULTS

SWEP BPHEs make it possible for Falun to use 100% renewable energy and to recover heat from the facility for use in the local combined heat and power (CHP) plant.

**EcoDataCenter depends on powerful, sustainable SWEP solutions**

Data storage is one of the fastest growing businesses in the world. Both high-performance computing and AI consume vast amounts of energy, generate large quantities of heat, and significantly contribute to global greenhouse gas emissions. Nearly 40% of the power consumed in a typical data center is used for cooling. That's why EcoDataCenter has been focused from the beginning on building data centers that are in no way typical.

Each EcoDataCenter location has unique features that provide exceptional flexibility, sustainability, and world-class security. They are designed to handle large-scale operations, making them the perfect choice for businesses that require a high-level of performance and scalability. To keep their next-generation data centers running smoothly and sustainably, EcoDataCenter depends on powerful, state-of-the-art cooling solutions featuring SWEP brazed plated heat exchangers.



Multiple data center cooling technologies.

#### The role of SWEP BPHEs

SWEP provided several BPHEs from its B220, B320 and B85 ranges for EcoDataCenter's Falun facility. These BPHEs can be used for free cooling, which utilizes naturally chilled water from a nearby source or ambient outdoor air to cool the air in the data center. By filtering and humidifying cool outdoor air and converting it to a water circuit through a heat exchanger, it is possible to reduce or eliminate mechanical cooling for the majority of the facility's operating hours, particularly in drier and cooler climates.

SWEP BPHEs can also recover heat from the chiller condenser, which can be used to produce cold water for the low-temperature cooling circuit for office air conditioning, or to cool the buffer tank or battery room. At the Falun facility, SWEP BPHEs enable surplus heat between 30 and 32°C to be channeled to nearby Falu Energi & Vatten AB, the municipal utility company, for production of pellets. A future option is to include heat pumps, which would boost the hot water temperature to 90°C, suitable for municipal district heating.

#### Why choose SWEP?

SWEP brazed plate heat exchangers are key components in many of the best-optimized data centers across the world. Installing and maintaining an efficient cooling system featuring SWEP BPHEs has greatly reduced operational costs and energy use in EcoDataCenter facilities in Falun and Borlänge.

SWEP's expertise in liquid cooling for data centers is unrivaled. Compared with conventional air-based cooling, liquid cooling dramatically reduces energy consumption and space requirements, freeing up room and resources that make it possible to design truly flexible data centers. The additional computing power enabled by liquid cooling translates to higher heat output. SWEP BPHEs make it possible to recover and reuse this waste heat in nearby combined heat and power (CHP) systems.



#### More About EcoDataCenter

Founded in Sweden, EcoDataCenter's drive for sustainable accountability is industry-leading. They are the European leader in AI infrastructure, building high-performance data centers that combine world-class engineering with a commitment to minimal climate impact. EcoDataCenter led Europe's first deployment of a liquid-cooled DGX GB200 Nvidia Blackwell cluster, the world's most advanced AI cluster.

According to Timy Vikström, Account Executive at EcoDataCenter Falun, "In addition to environmental sustainability, EDC is also fully focused and committed to diversity and equality across the organization, applying high ethical standards across all aspects of its business."



SWEP brazed plate heat exchangers