



SWEP BPHEs prove vital for greenhouse temperature control

Holambra, a city located in São Paulo State, is home to the biggest green house in Latin America with an annual production of over 100 million flowers. With temperature control being crucial in this project, Transcalor, a manufacturer of chillers and other peripherals located in Brazil, knew that SWEP BPHEs were the right choice for the heat transfer element in the application.



Transcalor's TRA 480 Chiller with SWEP P250AS models installed.



To give you an idea of the output potential, this greenhouse sold around 12 million flowers on International Women's Day in 2019 alone. These plants are extremely sensitive to weather changes, and the environment needs to be tightly controlled. ABC Transcalor, a provider of intelligent solutions in processes across the HVAC/R market, installed two chillers working in parallel to control temperature and humidity to ensure all the flowers will be kept at the perfect weather conditions for them to grow up beautiful and healthy. With SWEP being a strong supplier within the heat transfer industry, Transcalor knew that choosing SWEP's range of BPHEs (brazed plate heat exchangers) would help them tailor and provide the ideal solution for the greenhouse.

SWEP BPHEs have all the vital qualities demanded by temperature control applications. Robust and compact, they offer long-term reliability with minimal maintenance. Their flexible design and our ability to

customize both the plate and brazing materials bring unbeatable performance and lifetime cost compared with other technologies. Transcalor's TRA 480 Chiller was installed in 2020 using SWEP's P250AS evaporators, allowing for complete temperature control. The high performance provided by the P250AS range brought about the possibility to achieve extreme temperature control inside the greenhouse, allowing the flowers to reach their full growth potential to ensure they were of the highest quality for the market.

SWEP's P250AS model is a high-efficiency single-circuit evaporator,



SWEP
P250AS.

specially developed for air- and water-cooled reversible chiller applications. Its large ports and asymmetric plate design deliver an effective operating range of 80–250 kW (22.75–71.09 USRt). The AsyMatrix® plate pattern of the P250AS improves heat transfer while reducing water pressure drop and refrigerant charge. AsyMatrix® is SWEP's innovative asymmetric plate design technology for BPHEs.

The asymmetric channel configuration smartly combines maximum heat transfer on the refrigerant side with minimum pressure drop on the secondary side. The increased energy efficiency and better use of the structural material compared with conventional heat exchangers delivers a more sustainable solution in suitable applications.

About Transcalor

Transcalor has vast experience in the areas of Refrigeration Processes, Heat Exchangers, and Air Conditioning systems, offering cost-effective solutions, capable of serving various markets and different types of applications. The Transcalor team is committed to its customers and does its best to provide them with the most efficient service.

