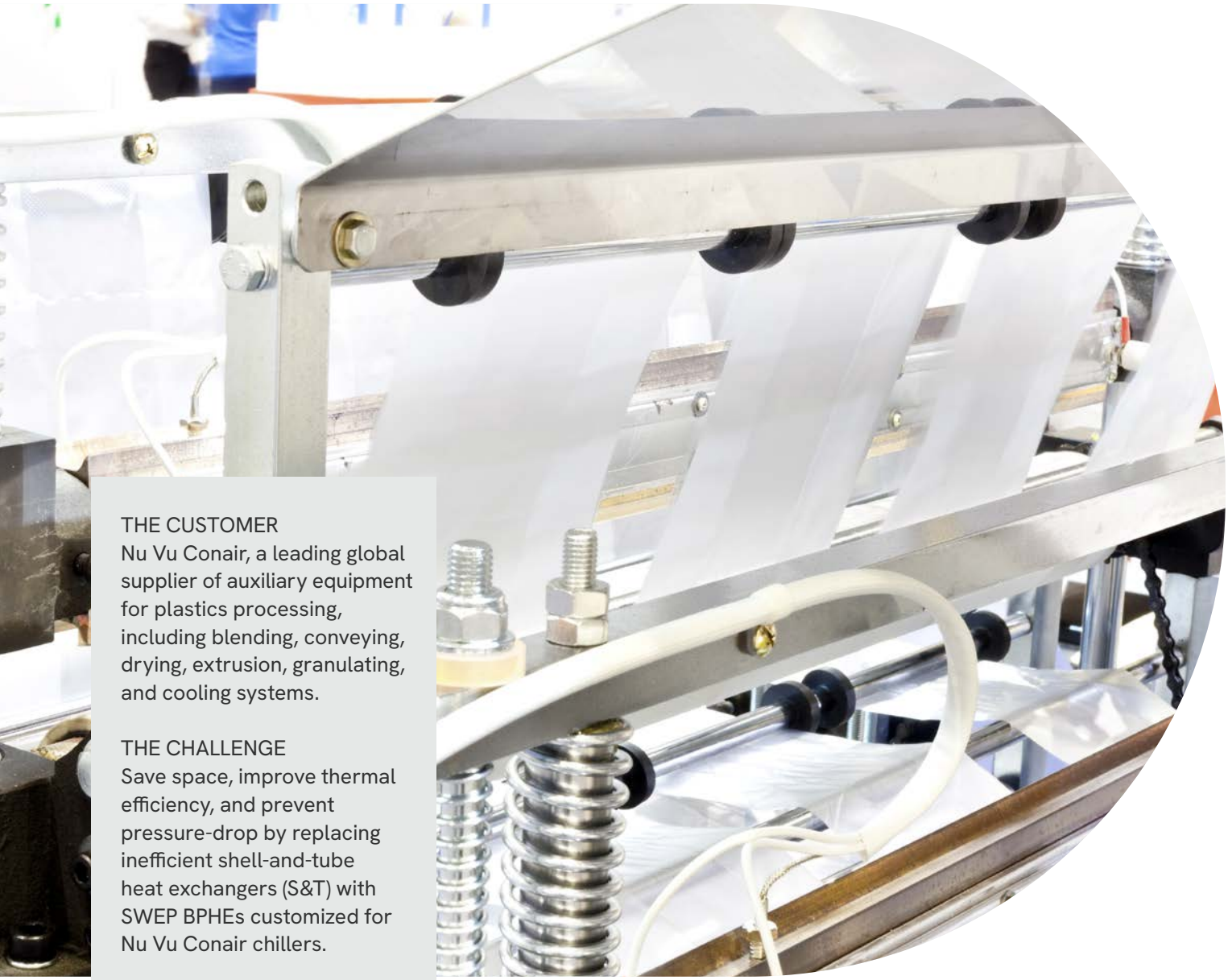
CASE STORY



THE CUSTOMER
Nu Vu Conair, a leading global supplier of auxiliary equipment for plastics processing, including blending, conveying, drying, extrusion, granulating, and cooling systems.

THE CHALLENGE
Save space, improve thermal efficiency, and prevent pressure-drop by replacing inefficient shell-and-tube heat exchangers (S&T) with SWEP BPHEs customized for Nu Vu Conair chillers.

THE SOLUTION
SWEP BPHEs enable cleaning in place (CIP), making it possible to replace inefficient S&T, even in applications where water-quality is low.

THE HEAT EXCHANGERS
A wide range of SWEP BPHEs, from B25T to F400T, standardized with plate geometries and distribution devices to suit Nu Vu Conair chillers.

THE RESULTS
Reduced downtime and lower maintenance costs for Nu Vu Conair chillers; improved efficiency and lower pressure-drop in the heat exchangers, supported by CIP.

SWEP brazed plate heat exchangers for high-capacity Nu Vu Conair chillers

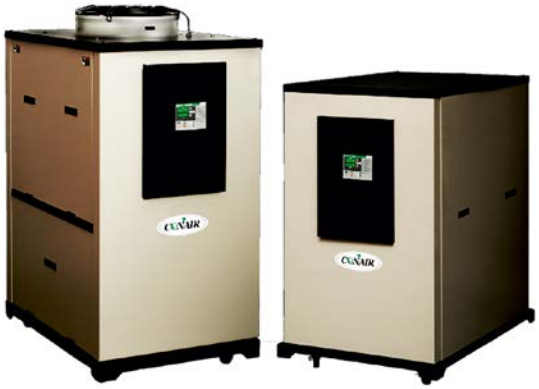
SWEP
A DOVER COMPANY

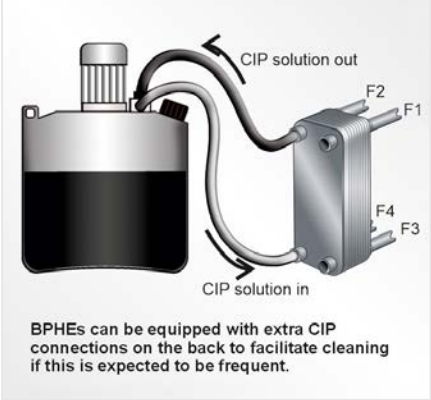
Water quality is one of the biggest challenges faced by chiller manufacturers. It is common for water flowing through the heat exchanger to contain traces of dirt, oil, grease, chemicals or organic material. These contaminants can leave deposits on the heat transfer surface, reducing thermal efficiency and altering the pressure-drop characteristics of the heat exchanger.

Nu Vu Conair's modular chillers operate with a variety of parameters and refrigerants. Traditionally, the company used S&T for their high-capacity chillers, since conventional wisdom held that they were the only type that could function reliably in applications with poor water-quality or risk of freezing.

Now, however, Nu Vu Conair helps their customers prevent these problems before they start. "We start educating our customers before we finalize the project and to the end of execution," says Ajay Shah, Technical Director at Nu Vu Conair. "We recommend our customers to use only treated water in chillers, and we convince them that good water quality not only helps increase the life expectancy of the evaporator, but also that of the main processing machinery, i.e. molds, die, or gear box. We also recommend our customer to arrange for a water-treatment consultation."

More About Nu Vu Conair
Nu Vu Conair is a joint venture company of Nu Vu Conair USA, based at Ahmedabad-India, and one of the largest suppliers of auxiliary equipment for plastic processing. The company makes and markets over 450 different products, including resin-drying systems, gravimetric blenders, feeders, material conveying systems, belt conveyors, granulators and temperature control equipment, including portable and central water chillers.





BPHEs can be equipped with extra CIP connections on the back to facilitate cleaning if this is expected to be frequent.

The role of SWEP BPHEs
SWEP brazed plate heat exchangers save time, money, and energy, while offering a lifecycle equivalent to that of an S&T. Powerful but small, they fit perfectly into most industrial applications. For these reasons and more, Nu Vu Conair decided to replace their conventional shell & tube heat exchangers with brazed plate heat exchangers from SWEP.

To manage harsh conditions, including applications that use water at high-temperatures or with a high concentration of particles, Nu Vu Conair recommends preventive cleaning in place (CIP), which circulates a chemical cleaning solution through the BPHE to dissolve or loosen deposits on interior surfaces. Because CIP doesn't require disassembly of the BPHE, it significantly reduces downtime and maintenance costs. SWEP also supports Nu Vu Conair with extensive CIP expertise.


SWEP brazed plate heat exchangers.

To prevent freezing, anti-freeze controls can be installed in the system and temperature sensors can be mounted on the BPHEs. SWEP supplies units that are configured for mounting the sensor, with additional connections in the evaporator inlet.

Why choose SWEP?
"It is our privilege to have SWEP as a supplier of brazed plate heat exchangers. We selected SWEP as an exclusive supplier of brazed plate heat exchangers already in 2008, due to their world-class product quality and the excellent after-sales support we have received," says Ajay Shah. "We are very pleased with the performance of the SWEP brazed plate heat exchangers in terms of heat transfer capacity, reliability and extended lifetime."