

#### UNIVERSAL DYNAMICS

Universal Dynamics Inc., of Woodbridge, Va. — the U.S. arm of the Piovan Group, Santa Maria di Sala, Italy — is introducing its line of Aquatech DigitempEvo thermochiller/TCUs to U.S. injection molders. Aquatech is a company of Piovan Group.

Piovan no longer differentiates between TCUs and chillers, said Giorgio Santella, the chief marketing officer for Piovan. “When it comes to injection molding of plastic parts with high performance, the solution we always offer is the DigitempEvo,” he said. “It’s a combination of the two.”

Unlike other TCUs, the DigitempEvo does not require a chilled water source. The DigitempEvo

has an internal cooling source, which means injection molders need only pipe dry-cooler or tower water into the DigitempEvo. The unit then chills the fluid, if necessary, to the exact temperature needed to cool the mold.

The Aquatech system saves energy by chilling the water only by the amount necessary to maintain the proper mold temperature, Santella said. In addition, since each DigitempEvo cools one mold, it eliminates the need for insulated piping to be run through an entire manufacturing plant. In a conventional scenario, a processor could have each injection molding machine equipped with one or more TCUs (depending on the size of the part that is being molded) along with a central chiller water system.

Precise flow rate and temperature and pressure control are necessary when a manufacturer needs to produce parts with high performance standards. It’s suited for technical applications in such fields as the automotive and medical industries.

The DigitempEvo is available in five models with single- and dual-circuit versions of each. Designed especially for injection and blow molding machines, these units supply water at a precisely controlled temperature, pressure and flow rate, performing the dual function of heating and cooling. The working temperature range is from 40 degrees Fahrenheit to 195 degrees Fahrenheit.

The units use Copeland digital scroll compressors, which reduce energy consumption while offering exceptional performance. In addition, the use of an electronic expansion valve, included in the standard configuration, further enhances energy efficiency and temperature control.

Overall, energy savings should range from 30 percent to 50 percent compared to equivalent models already on the market, according to the company.

The DigitempEvo uses refrigerant gas R410a, which does not contribute to ozone depletion.

