



CHILLED & TOWER WATER HYDRAULIC, FREE-COOLING



- **Integrates critical process cooling with automatic Free-Cooling**
- **Incorporates chilled water to injection molds and tower water for chiller condensers and for hydraulic system cooling.**
- **Total system flow is 2,500 gpm**
- **Free-Cooling system provides savings above \$13,000 a month.**
- **Buffer tanks are highly reliable for maintaining steady temperatures through a system.**

BACKGROUND

Fluid Cooling Systems, LLC provided the engineering and equipment manufacturing for the cooling equipment of a facility using new and revitalized plastics injection molding machinery and related processes.

EXECUTION

The FCS team conducted detailed discoveries to determine exact customer needs. This process included several site visits to gain a thorough understanding of the equipment and processes the new FCS Solution will serve. This phase included an analysis of technical documentation.

LOAD DETERMINATION

This project included a number of machines and processes. Mold cooling, condenser cooling, hydraulic system cooling, automatic free-cooling and integrated controls. This important phase identified the precise thermal requirement and was able to provide more efficient equipment solutions. The equipment required three months to produce and then installation occurred in two phases as planned.

OUTCOME

Operating Envelope and Scalability were important objectives, so Variable-Speed Drives for fans and motors for pumps were employed and controlled to provide these key requirements. Maintenance was also reduced in the system.

FCS enjoys a long term relationship with customers who appreciate our thorough approach and high level customer service.

