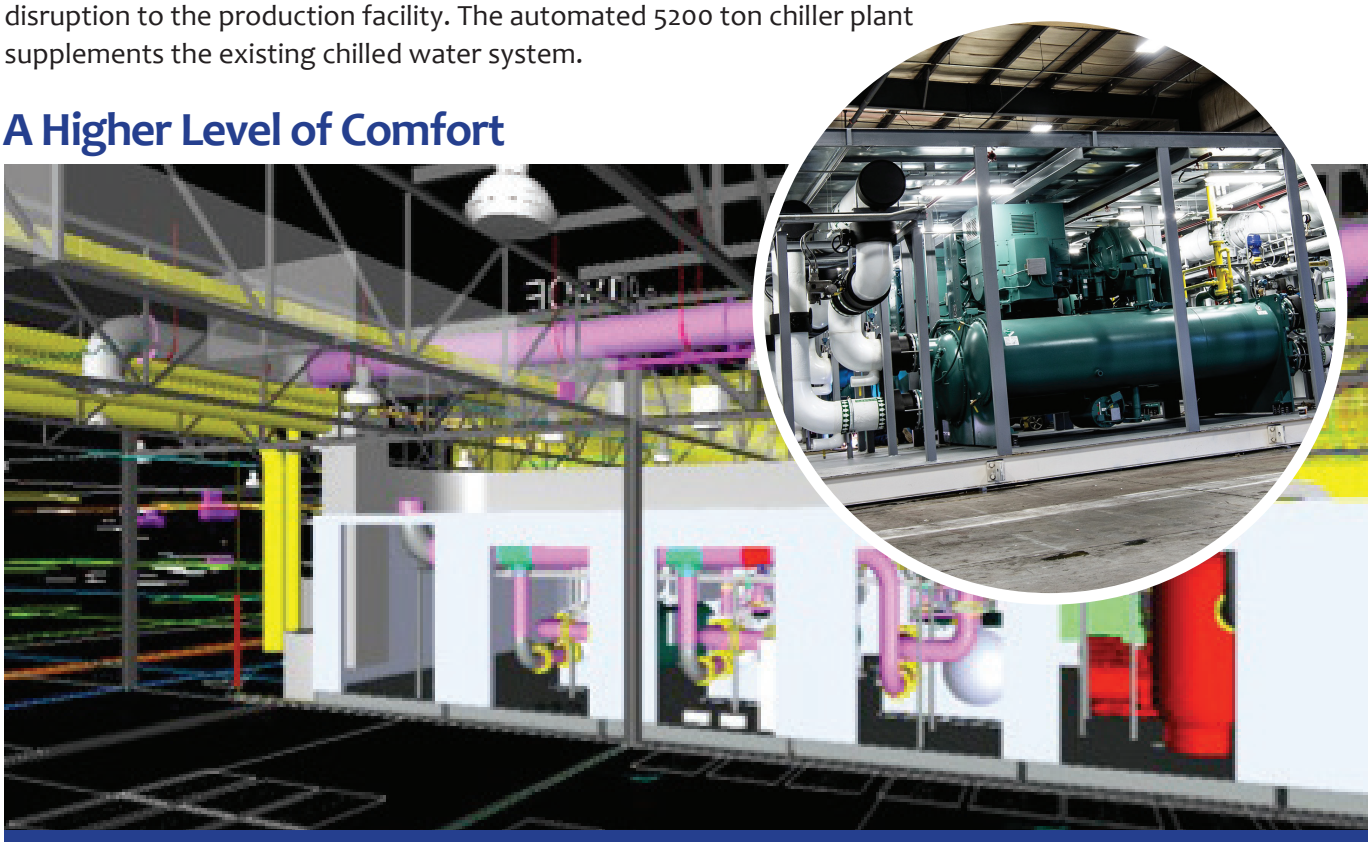
Case Study: Ford Engine Plant - Lima, Ohio

TMI Case Study No. 11059

The Ford Engine Plant in Lima, Ohio is comprised of 670,000 square feet of manufacturing area with three different areas of production: Crankshaft, Block and Assembly. This facility was tasked with installing additional cooling to supplement their existing chilled water system, which is fed by an underground geothermal well water system. As the facility retooled and loads grew, the plant required an additional 5200 tons of cooling phased in over the next several years. Due to site conditions the best place for the chilled water system was on the inside of the Engine Plant, but a three to six month construction cycle would not work for the Client. The disruption to production would be cost prohibitive, but the geothermal system was quickly becoming undersized, Ford had no choice but to act.

TMI Climate Solutions, a long-time Ford partner for Custom Air Handling Solutions, entered with a solution from their Advanced Hydronics Divisions. TCS recommended a modular chiller plant that could be completely manufactured at the TCS Facility in Holly. Michigan. This would allow the disruption to the Ford Plant to be minimal, and over 90% of the chiller plant would be manufactured off-site and dropped into place inside the Ford facility in less than a week. The final fit and finish of the modular chiller plant was completed by the TCS Construction Services team inside of the Ford Engine Lima Plant. Therefore, minimizing the disruption to the production facility. The automated 5200 ton chiller plant supplements the existing chilled water system.

A Higher Level of Comfort

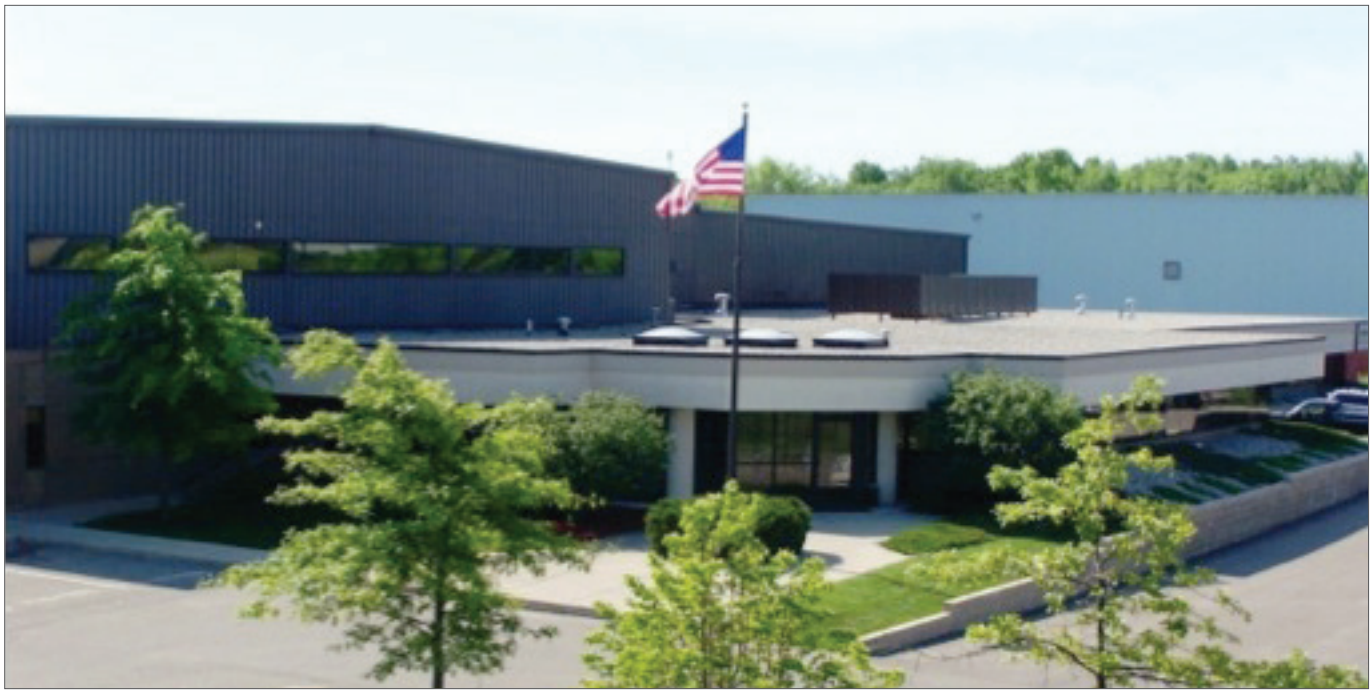


3D Model of the proposed Chiller Plant placed inside of the Ford Engine Plant

Other Features:

- Complete Electrical Switchgear Included
- Highly Efficient Variable Primary Chilled Water System
- Allen-Bradley PLC Based Controls
- HD PVC Condenser Piping System
- Cooling Towers Mounted Next to the Engine Plant
- Complete Integration to Plant Facility Management
- Empty Bay for Future Chiller

From start to finish the Modular Utility Plant took approximately 20 weeks to design, procure, manufacture and install 5200 tons. Ford had control over major equipment vendors, including the Chillers, Cooling Towers, Pumps and Electrical Gear. With the integration of the Allen-Bradley PLC based controls, the owner sees no difference in this chiller plant than at any other Ford Plant worldwide.



TMI Climate Solutions
200 Quality Way
Holly, MI 48442

P: 888-727-8772
F: 810-694-5804
tmiclimatesolutions.com