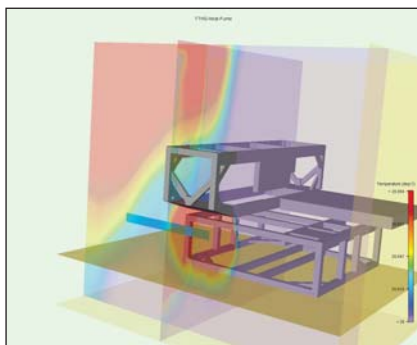
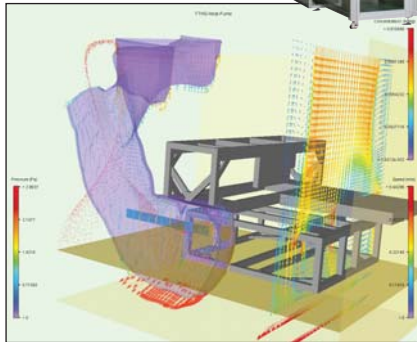


HNC Develops Innovative Cleanroom Designs with FLOVENT



Design Challenge

HNC provides cleanroom and mini-environment systems that minimize the inflow, generation, and retention of airborne particles while meeting temperature, humidity and pressure requirements. These systems are used in facilities for manufacturing displays, semiconductors, and electronic equipment; operating theatres and patient rooms; pharmaceutical and food processing; and biotechnology laboratories. Many state of the art facilities have strict requirements that can only be met with innovative air distribution solutions. Accurately predicting the performance of the cleanroom or mini-environment prior to construction is essential to avoid costly changes while avoiding over-design.

Solution and Benefits

HNC engineers use Flovent software to analyze airflow patterns, temperature, pressure distribution, and route of pollutants and iterate to an optimal cleanroom solution. Simulation helps identify potential design flaws so they can be corrected before the facility is built. The ability to quickly and efficiently model different air distribution designs makes it possible to perform what-if studies that improve clean room performance without adding unnecessary cost. The normal approach is to first design for the overall system requirements and then develop the isolated mini-environments required to meet local cleanliness requirements.

Customer Testimonial

"Many contamination problems can only be solved by totally new design concepts and the only way to evaluate and optimize these concepts, short of building test facilities, is with simulation. Flovent provides accurate performance predictions that help us develop innovative concepts that provide our customers with substantial improvements in cleanroom and mini-environment performance. Flovent has demonstrated the ability to simulate a wide range of airflow patterns with a high level of precision, even at the concept stage."

J Park, Mechanical Engineer, HNC