

COMPUTATION FLUID DYNAMICS

AKF Engineers is dedicated to providing excellence in engineering to our clients, which is why we are among a select group of engineering firms offering Computational Fluid Dynamics (CFD) Modeling and Analysis to our list of services. CFD provides an easy methodology to optimize design and pinpoint problems based on accurate predications of airflow patterns, heat transfer, contaminant transport, and thermal comfort in ventilation systems. By using CFD early in the design cycle, AKF can optimize our clients ventilation systems, providing both a healthy environment for the inhabitants and potential energy savings due to mechanical system improvements. The results of this complex analysis are formed in 3-dimensional color illustrations, either on paper or in various electronic forms, which are easily understood through visualization and animation.

CFD analysis enables AKF to quickly zero in on the best and most cost effective ventilation design solutions. CFD targeted airflow applications include:

- Commercial/residential ventilation
- Fume hood design
- Telecommunication rooms
- Clean rooms
- Contamination control
- Industrial air conditioning
- Industrial ventilation
- Industrial hygiene
- Occupational health and safety
- External building flows
- Transportation ventilation
- Mine ventilation
- Fire and smoke management
- Educational Facilities
- Medical Facilities
- Animal and plant environments
- Kitchen ventilation
- Restaurants and bars
- Power plant ventilation
- Enclosed vehicular facilities
- Stadiums, arenas, and places of assembly

Innovativeness, responsiveness and timeliness are the characteristics that distinguish AKF from other engineering firms and offering CFD Modeling and Analysis to our list of services further demonstrates our commitment to offering the very best to our clients and our community, while helping to promote healthy and safe environments.

