CFD FOR AEC APPLICATIONS

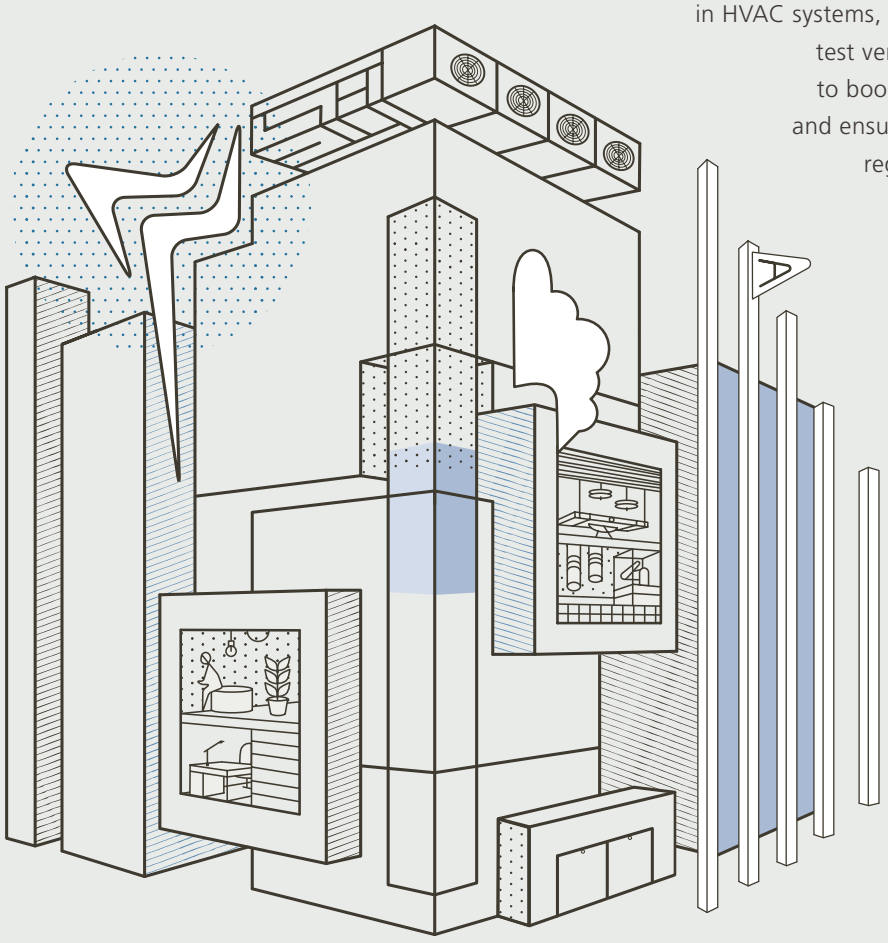
How Architects, Designers and Engineers Can Benefit From Virtual Testing

Validate HVAC Systems and Parts

Predict the performance of fans, compressors or pumps, investigate flow, minimize pressure drop in ducts, or optimize heating and cooling equipment.

Improve Energy Efficiency

Increase sustainability, maximize flow performance in HVAC systems, improve insulation, test ventilation placement to boost energy efficiency and ensure compliance with regulatory provisions.



Predict Wind Loads

Predict dynamic wind loads on high-rise buildings, test architectural designs and evaluate airflow over the constructions as well as the bending and the twisting phenomenon on the structures.

Control Air Quality and Contamination

Create a smart ventilation strategy, ensure the efficient removal of high contaminant concentrations in cleanrooms or labs, predict smoke propagation in underground garages, subway stations or shopping centers.

Optimize Thermal Comfort

Visualize airflow and heat transfer, test different air supply outlets and inlets, evaluate temperature gradients, air distribution or velocity plots to ensure thermal comfort for occupants in working and living environments.

SIMSCALE