## SIMULATION OF RECUPERATING PROCESS

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The article discuss about recuperation (regaining) heat from draffy air. Main goal is to verify ability of Comsol, as a simulation software, to set up the nearly real conditions for calculation of heat convection and conduction in recuperation unit. Experiments showed that the air humidity, in mentioned temperature range, makes an unimportant difference in point of efficiency. On the other side, airflow speed greatly influenced into efficiency of recuperation process. The results were changing in reciprocal ration with speed of air streaming along the devider. This is the reason why is needed to consider the size (dependent on volume) of recuperation unit in bigger buildings, because higher volume of recuperated air in same recuperation unit means higher airflow speed.

Key words: Recuperation, Comsol Multiphysics, modeling, simulation



Figure 1: Example of more simulation. 3D cross-section of middle part of rucuperation unit postprocessed (2x9x5mm)