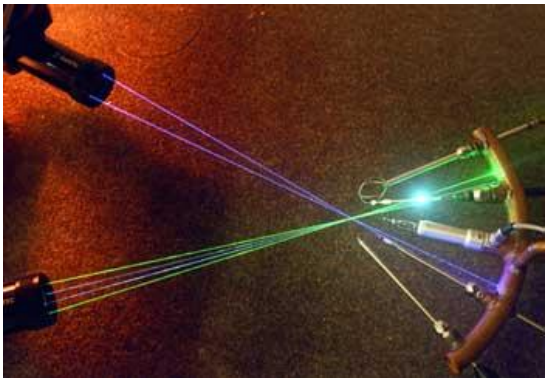
PRODUCT DEVELOPMENT AND LABORATORY



Acoustic

TROX Auranor has own laboratory for air flow measurements including a 200m³ reverberant room for precision measurement of sound pressure levels. This form the basis for technical leaflets, and also for customized products. Our reverberant room is built according to ISO 3741, and measurements are carried out according to ISO 7235 for insertion loss for product like ducted silencers and air terminal devices. The sound power level for dampers, valves and ATD's is determined by measuring sound according to ISO 5135.

In connection with the construction of the opera house in Oslo, we carried out so-called FAT (factory approval test) in 2006 of acoustic performance of the sound attenuators for this delivery.

Aerodynamics

We have a 60 m2 test room for measuring airflow-pattern, throw and drop from various designs of air terminal devices. The K-factor used in commissioning for our products is also measured here, as well as detail studies in pre-design stages for developing new products. In projects where customer wants to verify a planned solution, a part-or full scale test can be carried out according to actual project data for room temperatures, air flows and internal heat load. Measuring data is sampled and stored in various logging systems for later reports together with graphic documentation, like DVD's with pictures or video.

Ceiling cooling systems

We have test room for documentation of cooling capacity for active and passive chilled beams. The room is also used for full-scale testing in projects with deliveries to offices when it is necessary to validate the solution according to a specification for air velocities, or temperature gradient in the occupied zone.