ASHRAE Technical Committee 8.10
Mechanical Dehumidification Equipment and Heat Pipes

Official scope: TC 8.10 is concerned with mechanical dehumidification equipment and heat pipes and their design, performance, applications, and features.

Goals & Objectives

Goal #1: Further the industry's understanding and successful application of mechanical dehumidification equipment (chilled water or direct expansion), with particular focus on 1) dedicated outdoor-air system, 2) indoor swimming pool, 3) indoor ice rink, 4) manufacturing process, 5) residential, and 6) retail applications.

***Specific* objectives toward Goal #1:**

1. Complete ASHRAE design guide for dedicated outdoor-air systems
2. Conduct research on calculating evaporation rates from various types of indoor swimming pools and water parks
3. Conduct research on whole home dehumidification sizing
4. Conduct research on "Separate Low Exhaust" efficacy and efficiency in poolrooms
5. Develop guides for target latent capacities (supply air dewpoints)for dedicated outdoor air equipment
6. Develop "method of test" standards, and corresponding AHRI rating standards, for application of heat pipe in "latent enhancement" configurations ("wrap-around")
7. Expand the application-related content included in our Handbook chapter
8. Assemble a collection of articles/papers on the subject of indoor swimming pool dehumidification (possibly for sale through the ASHRAE online Bookstore)
9. Assemble a collection of articles/papers on the subject of indoor ice rink dehumidification (possibly for sale through the ASHRAE online Bookstore)
10. Sponsor programs on the application of mechanical dehumidification equipment in dedicated outdoor-air system, indoor swimming pool, indoor ice rink, manufacturing process, residential, and retail applications
11. Assist society in establishing guidelines for high humidity limits for spaces. Focus will be on establishing expectation for typical applications for indoor spaces. This would go beyond the comfort conditions currently indicated in ASHRAE 55.
12. Develop industrial sizing recommendations for dehumidification.

Goal #2: Promote technologies and strategies that improve the energy efficiency of mechanical dehumidification equipment.

***Specific* objectives toward Goal #2:**

1. Sponsor programs on methods for improving the energy efficiency of mechanical dehumidification equipment (heat pipes, hot gas reheat, control strategies, energy recovery, etc.)
2. Expand the content in our Handbook chapter related to improving energy efficiency
3. Create handbook material and programs to explain impact of dehumidification on other HVAC equipment and building systems.

Goal #3: Improve the membership balance of the committee.

***Specific* objectives toward Goal #3:**

1. Recruit consulting engineers who design systems that use mechanical dehumidification equipment and heat pipes
2. Recruit an international member
3. Increase the involvement of corresponding members
4. Invite attendees of ASHRAE forums and seminars to participate in TC 8.10 meetings