

E.F. SIEGFRIED CO., INC.

"HOT AIR" NEWSLETTER

This issue focuses on current louver testing codes as well as the new AMCA code. The differences between the codes will be discussed as will some particulars about the individual codes. We also have a new product line; Rickard Air Diffusion manufactures VAV ceiling diffusers that offer unique features and benefits. Enjoy!

Please distribute to all mechanical designers and engineers



First, I'd like to introduce **Rickard Air Diffusion** as the newest addition to our family of HVAC products. Rickard Air has been manufacturing **VAV ceiling diffusers** for 20 years and has helped improve upon technology in this field with their patented design, lower pressure drops and NC values. They offer both **thermally-powered** and **electronically-powered** VAV ceiling diffusers as well as electronically-powered VAV sidewall registers and linear slot diffusers. I will be bringing their catalog to you during my next round of visits. If you need information in the mean time, you can check out their website at www.rickard-air.com.



Outdoor air louvers are currently tested under **AMCA Code 511**. This test, which includes air performance and water penetration ratings, is the standard by which different types and brands of louvers can be compared. Under the current test, **vertical rainfall** (4in/hr) is simulated on one side of the louver while, on the other side, a fan draws air in through the louver. The velocity is increased gradually until water penetration begins. The results are expressed in tabular form as velocity (fpm) vs. water penetration (oz./sq. ft. free area). AMCA 511, however, is limited because it **does not take into account the effects of wind-driven rain**. In order to provide a more realistic test, AMCA has developed and approved a new testing standard, **AMCA 500-L-99**. This test, which is based on the internationally recognized HEVAC technical specification, now incorporates not only a simulated rainfall (3in/hr), but also a **simulated wind velocity** of 29 mph (or 8in/hr rainfall with a 50 mph wind). AMCA 500-L-99 is intended to succeed AMCA 511 as the standard for louver testing (MasterSpec has already incorporated the new code into it's specifications). Manufacturers were able to begin submitting test specimens to AMCA earlier this year for the AMCA 511 testing.

Another louver test that has received recognition as of late is the **Dade County hurricane test (98-1015.07)**. This code (as the name implies) was developed in south Florida to help alleviate the devastating property damage caused by frequent hurricanes. The test is actually comprised of four separate tests: PA100A (**wind-driven rain test**), PA201 (**impact test**), PA202 (**static air pressure test**), and PA203 (**cyclic wind pressure**). A manufacturer may submit a louver to be tested under any combination of these four tests, but **not necessarily all of them**. Hence, it is important to know which part of the Dade County test a louver has been approved under in order to ensure you have specified the correct product for your application. Louvers that meet this code are currently being used up and down the east coast.

If you have any questions, call me at 215-887-7244 or e-mail me at: rkugler@efsiegfried.com

