



# New Fire and Smoke Damper Requirements

## Effective July 1, 2002

Fire and smoke dampers manufactured after July 1, 2002, must comply with new requirements from Underwriters Laboratory (UL). UL Standard 555, *Fire Dampers* (6<sup>th</sup> edition), and UL Standard 555S, *Smoke Dampers* (4<sup>th</sup> edition), have been revised with upgraded safety and reliability testing requirements. As a result, UL listings of almost all fire and smoke dampers classified under previous editions of these standards expired on June 30, 2002.

Following are some of the major changes to these standards:

- Minimum airflow and pressure categories have been established, and they include appropriate safety factors
- Closure and operational tests are required at elevated temperatures (e.g. 250°F and 350°F)
- Dampers are required to be tested and rated for airflow in either direction
- Fire dampers must be designated as either “static” or “dynamic,” based on whether the HVAC system remains operational during a fire emergency
- Smoke dampers are required to have a “dynamic” rating
- Field-mounted actuators are no longer acceptable, and dampers must be classified with specific actuators
- Smoke damper leakage classification IV has been eliminated
- Requirements for a “combination fire and smoke damper” have been established for the first time

Although the 1997 Uniform Building Code (UBC) references the previous editions of these standards, Section 713.10, *Smoke Dampers*, and Section 713.11, *Fire Dampers*, of the 1997 UBC require “*dampers complying with the requirements of approved recognized standards.*” As a result, it is necessary for the building official to enforce the requirements of the latest fire and smoke damper standards, since they are the only ones that are recognized in the industry. The Minnesota amendments to the 2000 International Building Code (IBC), which is slated for adoption later this year, will specifically reference the latest editions of these standards.

Both the 1997 UBC and the 2000 IBC require a minimum of Class II leakage rating (classification) and an elevated temperature rating of not less than 250°F for smoke dampers. Unfortunately, the new standards do not require the dampers to be marked with information indicating compliance with the latest edition of the standards. However, UL will not allow manufacturers to identify dampers with the UL mark after July 1, 2002, unless they have products tested and classified to the latest edition of UL 555 or UL 555S. The standards also require the date of manufacture (or an acceptable code representing the date of manufacture) on each damper, so the date identification can be used to determine compliance with the new standards.

If you have any questions regarding these new requirements, please contact Tim Manz, Mechanical Code Representative, at (651) 297-4379.