GREENHECK
The Solution Company.

Greenheck's Fire Life Safety Dampers qualified to UL's new standards!

Why the change?

In response to concerns expressed by the ASHRAE engineering community, UL, ASHRAE and AMCA cooperated to revise and upgrade UL's standards for Fire Life Safety Dampers. These revisions to UL555 and UL555S will increase the safety and reliability of Fire, Smoke, and Combination Fire Smoke Dampers.

When is the change?

On June 1st, 1999, Underwriters Laboratories issued a series of changes to the requirements for fire life safety dampers. While all dampers manufactured and shipped after July 1, 2002 must meet these new requirements, Greenheck has them available now. Don't wait for UL's deadline. Upgrade your specifications now to make sure your clients receive these more reliable Fire Life Safety Dampers as soon as they are commercially available.

Who will the change affect?

These changes directly affect the HVAC design engineer:

- Minimum airflow (velocity) and pressure rating levels have been established and include a safety factor to ensure greater reliability.
- The new UL Standards require that closure and operational tests be conducted at elevated temperatures (250ºF or 350ºF) to simulate actual fire emergency conditions. This ensures the dampers will perform their intended function.
- Dampers must now be tested and rated for airflow in either direction through the damper. This requirement, which has always been part of Greenheck's damper ratings, will now be mandatory for all manufacturers.

What action is required?

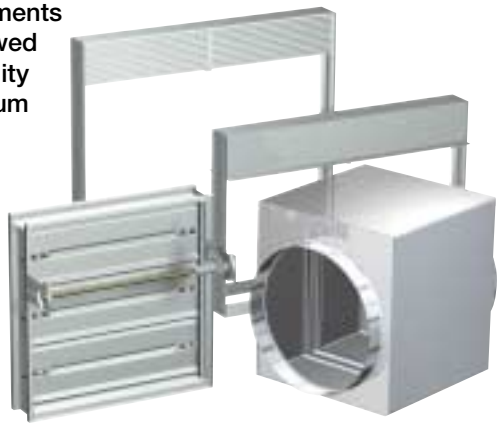
As Greenheck and other damper manufacturers have been working to qualify their dampers to the new UL criteria, HVAC Engineers should begin the process of reviewing and changing their specifications to require the more reliable dampers. The time to start is now!

Old UL Test Standard	New UL Test Standard
• No minimum airflow requirement • No safety factor built into ratings	• Airflow Ratings: 2,000, 3,000, and 4,000 fpm (UL 555 & UL 555S) • Minimum test requirements: 2,400, 3,400, and 4,400 fpm (UL 555 & UL 555S)
• No minimum pressure requirement	• Pressure ratings: 4, 6, and 8 in. wg (UL 555 & UL 555S) • Min. test requirements: 4.5, 6.5, and 8.5 in. wg (UL 555 & UL 555S)
• Unidirectional airflow ratings	• Bidirectional airflow testing required (UL 555 & UL 555S)
• Two position actuators - 5,000 cycles	• Two position actuators - 20,000 cycles (UL 555S)
• Tested with airflow at ambient temperature	• Tested with airflow at rated temperature (UL 555S)
• Actuators may be field mounted	• Actuators must be factory installed (effective 6/2000) (UL 555S)
• Leakage tested at ambient with a unit that has not been exposed to the Operation and/or Dynamic Closure Test	• Leakage tested at rated temperature after Operation Test and/or Dynamic Closure Test (UL 555S)
• Four leakage classifications	• 4th leakage classification eliminated (UL 555S)
• No actuation required	• Test with actuator holding damper closed (UL 555S)

Note: Combination Fire Smoke Dampers meet requirements of both Fire Damper Standard UL 555 (sixth edition) and Smoke Damper Standard UL 555S (fourth edition)

Update Your Specifications!

As Fire, Smoke, and Combination Fire Smoke Dampers meeting the requirements of the new UL Standards are available now, Specifications need to be reviewed and upgraded to require these dampers. We suggest you take this opportunity to do a complete review of your damper specifications; the following minimum changes must be accomplished to properly specify fire life safety dampers qualified to the new UL standards:



Specify New UL Standards

Specify dampers certified under the new UL standards, issued June 1, 1999: UL 555 (sixth edition) and UL 555S (fourth edition).

Specify Static vs. Dynamic

Fire Dampers must be designated as Static (for HVAC systems that shut down automatically in a fire or smoke emergency) or Dynamic (for HVAC systems that remain operational during a fire or smoke emergency). Smoke and Combination Fire Smoke Dampers are required by new UL standards to have a dynamic rating.

Specify Pressure and Velocity Levels

Dynamic Fire Dampers, Smoke Dampers, and Combination Fire Smoke Dampers now have minimum pressure and velocity levels. Specifications must indicate one of three velocity levels (2000, 3000, or 4000 fpm) and pressure levels (4, 6, 8 in. wg) to obtain a damper which is UL classified and specific to its application.

Specify Leakage Classification

With leakage level IV dropped from the new UL standards, only three Leakage Classes are now available: I (least amount of leakage), II, and III (greatest amount of leakage). Most building codes require a minimum of Leakage Class II. Greenheck recommends specifying Leakage Class I.

Specify Temperature Rating

Greenheck recommends specifying 350° F for greater reliability.

Greenheck's UL Certified on-site testing lab utilizes heated air capabilities to simulate fire emergency conditions required by new UL Standards for Fire Life Safety Dampers.

By October 2001, Greenheck will have a comprehensive offering of Fire, Smoke, and Combination Fire Smoke Dampers meeting the new UL standards. Greenheck is committed to meeting all specifications conforming to the new UL555 and UL 555S standards by January 2002, allowing engineers to update specifications well before the changes become mandatory in July, 2002. Sample specifications can be found on our website www.greenheck.com or for assistance contact your Greenheck representative.

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