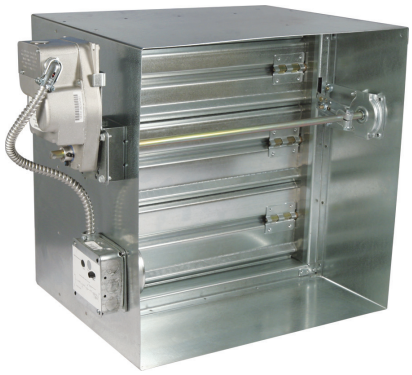
Dayton®



Motorized Smoke & Fire/Smoke Dampers

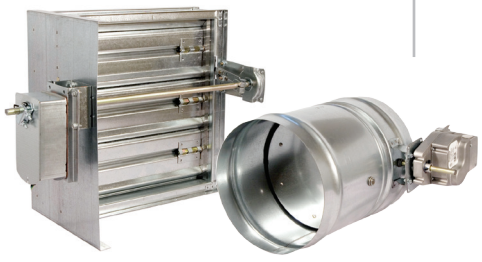
What U.L. ratings does a Fire/Smoke Damper require?
Fire dampers carry both the Standard for Fire Dampers U.L. 555 rating, as well as the Standard for Smoke Dampers U.L. 555S.

Where does this get installed?

Combination Fire/Smoke dampers are installed in rated fire barriers which could be either floor/ceiling assemblies or rated wall assemblies as determined in the U.L. Fire Resistance Directory based on what U.L. Fire testing has been completed, passed and U.L. Classified.

Types:

- Dampers can be either 1-½ hour rated which can be installed in barriers with ratings less than 3 hours, or
- 3 hour rated dampers which can be installed in barriers rated for 3 or more hours



Installation Questions/ Troubleshooting:

Damper isn't working at all.

- Is there actual voltage to the damper wiring connection point?
- Do all wires in the electrical box have a connection made to them?

Actuator has power but damper blades are not opening fully

- Are there any sheet-metal screws installed in the labeled area that states "No screws here"?

The most common problem found in non-working installations is that the damper is installed in an "out of square" or racked condition. (See Installation Instructions.)

Purpose:

Combination Fire and Fire/ Smoke Dampers are used at locations where air ducts penetrate barriers that are designated as both fire barriers and smoke barriers to prevent or slow the spread of flame and smoke throughout the building, theoretically providing occupants additional time to vacate the building in the event of fire. Slowing the spread of flames and smoke also makes it easier for fire fighters to get the fire under control quickly, find trapped victims faster and get them to safety. A fire barrier is defined as a fire-resistant-rated vertical or horizontal assembly of material designed to restrict the spread of fire through which openings are protected. A smoke barrier is a barrier designed to stop the spread of smoke throughout the building.

Ongoing Maintenance Requirements:

- Maintenance should include periodically removing any debris that builds up around the damper and surrounding areas so it does not get blown into the damper by airflow in the duct
- Cycling requirements of the Combination Fire/Smoke Damper as contained within NFPA 80 and referenced by the IBC and other building codes