

**FIGURE 7-2** Motorized dampers control the air leakage through the air barrier.

## **OUTDOOR AIR OPENINGS**

Mechanical ventilation systems bring in fresh air to the building interior and exhaust stale air to the outdoors. The openings must penetrate the air barrier to get the job done. Uncontrolled air flow through the outdoor air vents and in stairway enclosures and elevator shaft vents is accelerated by pressure imbalances between the building interior and exterior. Motorized dampers are required in these openings to control the air leakage through the air barrier (Figure 7-2). The dampers must be listed and tested.

Gravity dampers comply in buildings less than three stories above grade; for ventilation air intake, exhaust and relief dampers in any building in climate zones 1, 2 and 3; and in buildings where the design exhaust capacity is not greater than 300 cfm. **[Ref. C403.2.4.3 exceptions 1, 2 and 3]** These particular exceptions are a good reminder to read and reread the code provisions completely, as they are an example of an opportunity to save significant time and money and still comply with the applicable energy code provisions for dampers.