



Volume Control Dampers

Where does this get installed?

Control dampers are installed anywhere a requirement to control air exists. An example of where a control damper would be installed is in ductwork right where a branch comes off of a main duct run, to shut off or control the amount air flowing into that branch of duct.

Types:

The main differences in Control dampers are the blade styles, which provide different maximum static pressure and air stream velocity capabilities.

- Fabricated 3V blades = most economical but are also the most limiting in both pressure and air velocity
- Fabricated Airfoil blades = mid-level cost and mid-level capability with regard to pressure and air velocity
- Extruded Aluminum Airfoil blades = highest cost and highest capability with regard to pressure and air velocity

They are also available in different materials, ie. galvanized, aluminum, and 304 & 316 stainless steel.

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:

The main purpose of a control damper is to control airflow whether full open, full closed, or modulating the amount of air flowing through the damper. The damper area is sometimes used for other purposes such as directing an airstream to go in a certain direction by aiming the blades at an angle forcing the air to turn, or be mixed with another airstream.

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.

Lubrication should never be used on a damper as it attracts dirt and dust particles which acts as an abrasive and wears out the damper faster when cycling the unit.

