

INSTALLATION INSTRUCTIONS

Series 20 Smoke Damper

General Notes:

Smoke Dampers are approved for use in static or dynamic systems and may be installed horizontally or vertically as long as the blades are horizontal in accordance with NFPA 90A, at or adjacent to the point where the duct passes through the smoke barrier. In no case shall the dampers be installed more than 24" from the smoke barrier or after the first duct outlet. Aire Technologies' Smoke Dampers are bi-directional and may be installed with the jackshaft either upstream or downstream.

In transporting the damper, handle the sleeve or frame only and do not lift the damper by the blades or actuator. The damper must be installed square. Twisting, racking, compressing, or stretching the damper into the opening is prohibited. Dust, dirt, paint, etc. can inhibit the operation of the damper and can void the warranty. Special care must be taken in the installation and maintenance of the damper.

Installation:

To ensure optimal operation and performance, install damper squarely and free from racking. Do not compress or stretch damper frame into the duct or opening.

When dampers are joined and installed as a multiple damper assembly, dampers are fastened together at adjoining mullions with #8 bolts or screws, ½" long tack welds, or 3/16" tubular steel rivets.

Dampers more than one section wide and one section high require bracing at every horizontal mullion, as well as vertical bracing a minimum of 8" apart on center. Each section of the multiple-assembly is provided with its own operator/actuator unless it has factory-supplied jack shafting for two sections. The operator/actuators shall be connected in parallel so as to cause simultaneous closure of all damper sections.

The damper fastens to the duct, sleeve, or wall opening with #8 bolts or screws, ½" long tack welds, or 3/16" tubular steel rivets. All fastenings must be spaced a maximum of 12" apart, center-to-center with a minimum of two fasteners per side. A 1/8" bead of appropriate sealant (Dow-Corning Silastic 732 or GE RTV 108) shall be applied to the entire mullion joint. The surface of the sealant shall be pressed into place to dispel any air. Apply sealant in the same manner between the damper and sleeve or duct around one side of the damper's downstream face.

These devices are to be arranged to operate automatically and are controlled by a smoke detector (not included).

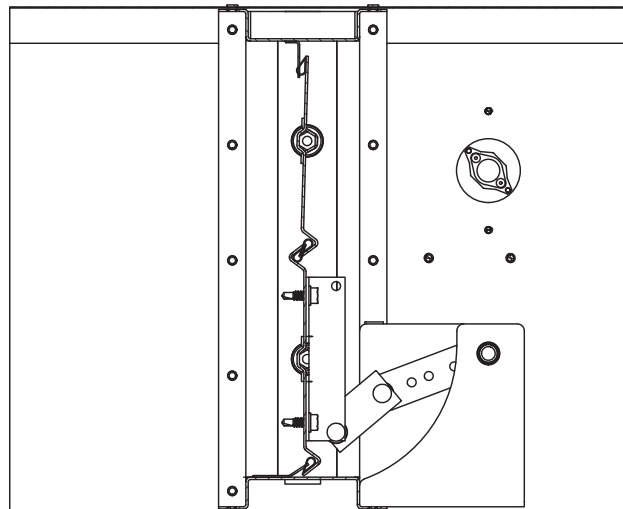
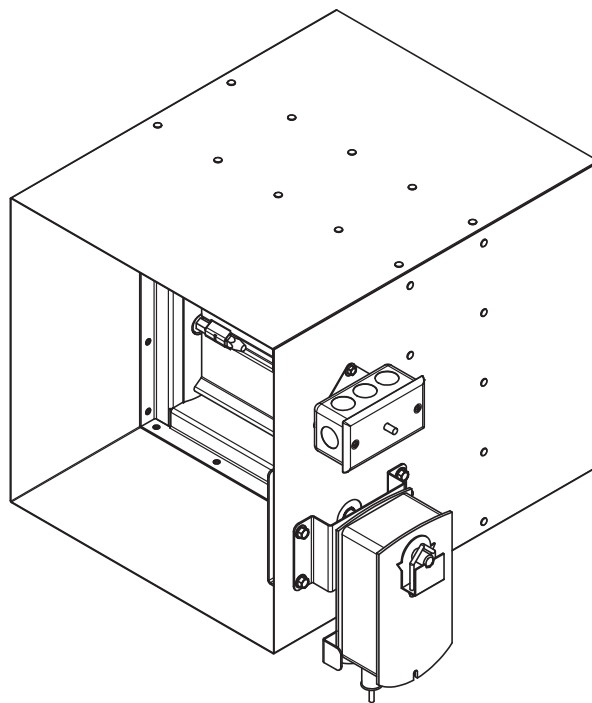
The damper must be cycled several times after installation is complete to verify proper installation.

Single-Section Maximum:

Model 20V - 3V Crimped Blades:
Vertical & Horizontal: 36"W x 48"H
Model 20F - Airfoil Blades:
Vertical & Horizontal: 36"W x 48"H

Multi-Section Maximum:

20V - 3V Crimped Blades:
Vertical & Horizontal: 144"W x 48"H
20F - Airfoil Blades:
Vertical & Horizontal: 108"W x 48"H



Installation Instructions In Conformance To Underwriters Laboratories Requirements

These instructions have been reviewed by UL and found to comply with all applicable requirements of UL 555 & 555S at the time of evaluation.

ALL INSTALLATIONS ARE SUBJECT TO LOCAL AUTHORITY APPROVAL PRIOR TO ORDERING DAMPERS AND DAMPER INSTALLATION

INSTALLATION INSTRUCTIONS

Wiring Diagram

Figure 1.

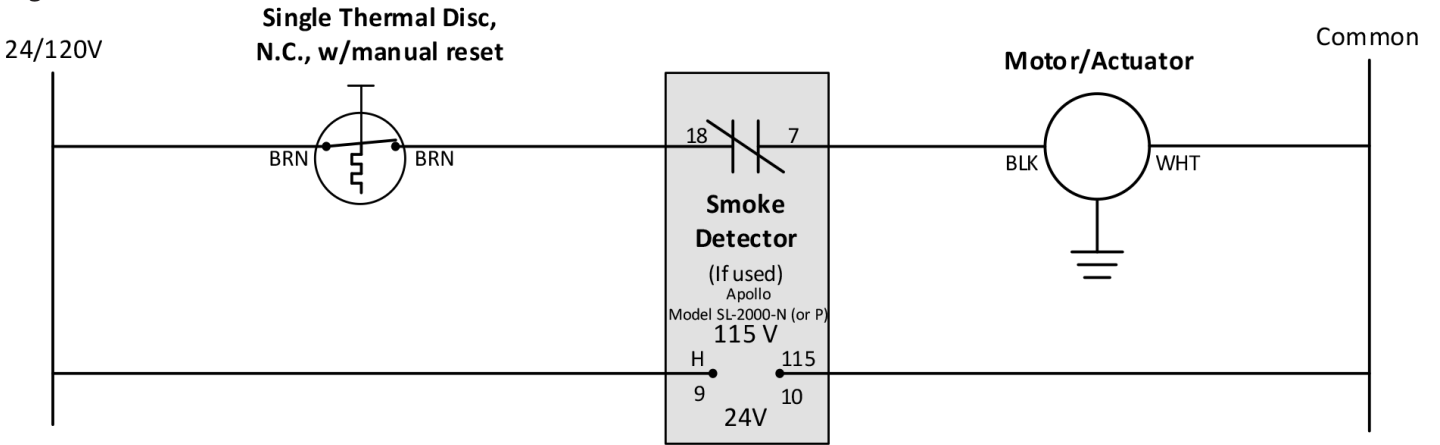


Figure 1
Basic unit with optional smoke detector

Actuators:

Aire Technologies' smoke dampers are equipped with factory-installed actuators which operate on the detection of heat or loss of actuator power.

