



## Dampers & Louvers

### AIRFOIL BLADE COMBINATION FIRE AND SMOKE DAMPERS SUGGESTED SPECIFICATIONS

Furnish and install at all locations as shown on plans Airfoil Blade Combination Fire and Smoke Dampers. The blades shall be airfoil shaped, constructed of a dual skinned galvanized steel, 14 gauge equivalent thickness, on 6" maximum centers. Frame shall be minimum 16 gauge-galvanized steel, roll formed into a structural hat shaped channel. Frame seal shall consist of flexible, compression type stainless steel. Blade seals, shall consist of composite silicone rubber capable of withstanding 450 ° F. Bearings shall be a bronze material with oil impregnated at time of manufacturing. The dampers and actuator (specify electric/pneumatic) shall be rated to an elevated temperature of 250 ° to 350 ° F. In addition, the dampers must be factory supplied with an actuator and sleeve to comply with the requirements of UL 555 and UL 555S. Installation of Combination Fire and Smoke Dampers shall be in conformance with NFPA 90A, NFPA92A, UL 555, UL 555S and manufacturer's installation instructions.

These dampers shall be constructed and tested in compliance with UL Standard 555 and UL Standard 555S, current editions. Leakage and airflow testing procedures are to be in accordance with AMCA Standard 500, current edition, in which the damper will have proven to open and close under specified static pressure and dynamic airflow conditions with a minimum of 4 inches of static pressure at 2000 fpm. The pressure drop shall not be greater than **.16 inches water gauge at 250 fpm** when tested by an independent laboratory. Each damper shall bear an approved UL label identifying its classification as a **Dynamic** rated fire damper, and shall be further classified as a Leakage Rated Damper for use in Smoke Control Systems. Each damper shall have a 1-1/2 hour fire protection rating, a 165 ° or 212 ° F (specify one) UL listed fusible link or thermal disc as required, leakage class rating of (specify class 1 or 2), and shall include a label referring to the manufacturer's installation instructions. The damper's submittal literature and labeling shall include performance data, which exceeds the maximum static pressure and volumetric airflow of the system for the maximum size damper required.

Operators shall be electric type operating on a 24vac or 120vac, 60hz or pneumatic type operating on 20 psi instrument air pressure (specify one) and shall be spring return such as that the dampers will close upon power interruption. All wiring or piping material required to interconnect the damper actuator with detection and/or alarm or other systems shall be furnish by other trades and contractors as detailed elsewhere in the specification. Dampers shall be **Leader Dampers and Louvers Model 601** (1-1/2 hour, class 1), **Model 602** (1-1/2 hour, class 2) or pre-approved equal.

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