HOW TO SPECIFY

MODEL SERIES: 1220M
1 1/2 HOUR LABEL - MODULATING COMBINATION FIRE/SMOKE DAMPERS

SUGGESTED SPECIFICATION:
Provide and install, as shown on plans and/or schedules, Modulating Combination Fire/Smoke Dampers suitable for volume control, as manufactured by Nailor Industries, Inc., which meet or exceed the following criteria:
Dampers shall meet the requirements of NFPA 80, 90A, 92, 101 and 105. Dampers shall be classified by Underwriter's Laboratories and labeled as a 1 1/2 Fire Damper under UL 555 and as a Class I Smoke Damper under UL 555S at an elevated temperature of 250°F (121°C).
Dampers shall be tested and approved for use in dynamic or static Smoke Control Systems. Dampers shall be tested under UL 555 and UL 555S by UL to a minimum velocity/pressure rating of 2000 fpm @ 4" w.g. (10 m/s @ 1 kPa).
Frame shall be constructed of 16 ga. (1.6) galvanized steel hat channel with mitered corners reinforced with die-formed corner gussets for strength. Blades shall be 14 ga. (2.0) equivalent galvanized steel formed double skin airfoil design on 5 1/2" (140) centers. Dampers shall be of opposed blade configuration with an interlocking blade design that provides complete flame and smoke seal under fire conditions at an elevated temperature of 2000°F (1093°C) when in closed position. Dampers requiring blade seals to maintain leakage class when under elevated temperature conditions are not acceptable. Blade axles shall be plated steel, double bolted at each end of blade to provide positive locking connection. Hex, square friction-fit or press-fit axles are not acceptable. Bearings shall be self-lubricating oilite bronze type. Blade linkage shall be zero-maintenance, concealed in frame, out of airstream. Jamb seals shall be compression-type stainless steel. Dampers shall be supplied with factory installed sleeves of minimum 16" (406) length and shall be field verified by contractor, dependent on wall thickness. Factory sleeves shall be caulked to UL requirements and shall be minimum 20 ga. (1.0).
Appropriate **(specifier select)** externally or internally mounted **(specifier select type)** electrical or pneumatic actuators shall be installed by the damper manufacturer in the factory. Actuators shall incorporate an OEM internal spring return mechanism; external after-market spring mechanisms are not acceptable. Each damper shall be equipped with a UL Classified heat responsive device that will cause the damper to close in a controlled manner and lock in a closed position by means of an over center/knee lock linkage when the duct temperature reaches the maximum degradation temperature of the damper/actuator assembly, as required by UL 555S. Closure devices that cause instantaneous closure are not acceptable. Damper and actuator assembly shall be factory cycled a minimum of 3 times to ensure correct operation.
Submitted pressure drop data to be based on tests in accordance with AMCA Standard 500-D. Standard of acceptance shall be Nailor Industries Model Series 1220M.

MODEL SERIES: 1220M-3
3 HOUR LABEL - MODULATING COMBINATION FIRE /SMOKE DAMPERS

SUGGESTED SPECIFICATION:

Provide and install, as shown on plans and/or schedules, Modulating Combination Fire/Smoke Dampers suitable for volume control, as manufactured by Nailor Industries, Inc., which meet or exceed the following criteria:

Dampers shall meet the requirements of NFPA 80, 90A, 92, 101 and 105. Dampers shall be classified by Underwriter's Laboratories and labeled as a 3 hour Fire Damper under UL 555 and as a Class I Smoke Damper under UL 555S at an elevated temperature of 250°F (121°C).

Dampers shall be tested and approved for use in dynamic or static Smoke Control Systems. Dampers shall be tested under UL 555 and UL 555S by UL to a minimum velocity/pressure rating of 2000 fpm @ 4" w.g. (10 m/s @ 1 kPa).

Frame shall be constructed of 16 ga. (1.6) galvanized steel hat channel with mitered corners reinforced with die-formed corner gussets for strength. Blades shall be 14 ga. (2.0) equivalent galvanized steel formed double skin airfoil design on 5 1/2" (140) centers. Dampers shall be of opposed blade configuration with an interlocking blade design that provides complete flame and smoke seal under fire conditions at an elevated temperature of 2000°F (1093°C) when in closed position. Dampers requiring blade seals to maintain leakage class when under elevated temperature conditions are not acceptable. Blade axles shall be plated steel, double bolted at each end of blade to provide positive locking connection. Hex, square friction-fit or press-fit axles are not acceptable. Bearings shall be self-lubricating oilite bronze type. Blade linkage shall be zero-maintenance, concealed in frame, out of airstream. Jamb seals shall be compression-type stainless steel. Dampers shall be supplied with factory installed sleeves of minimum 16" (406) length and shall be field verified by contractor, dependent on wall thickness. Factory sleeves shall be caulked to UL requirements and shall be minimum 20 ga. (1.0).

Appropriate (specifier select) externally or internally mounted (specifier select type) electrical or pneumatic actuators shall be installed by the damper manufacturer in the factory. Actuators shall incorporate an OEM internal spring return mechanism; external after-market spring mechanisms are not acceptable. Each damper shall be equipped with a UL Classified heat responsive device that will cause the damper to close in a controlled manner and lock in a closed position by means of an over center/knee lock linkage when the duct temperature reaches the maximum degradation temperature of the damper/actuator assembly, as required by UL 555S. Closure devices that cause instantaneous closure are not acceptable. Damper and actuator assembly shall be factory cycled a minimum of 3 times to ensure correct operation.

Submitted pressure drop data to be based on tests in accordance with AMCA Standard 500-D. Standard of acceptance shall be Nailor Industries Model Series 1220M-3.