

UL Specification Fire Smoke Dampers



UL Specification, Airfoil Blade Fire Smoke Dampers

Type 1220

The model 1220 has been designed to meet the test requirements of UL555 (fire) and UL555S (high temperature/smoke). The 1220 incorporates the new unique interlocking opposed blade design that eliminates the need for blade seals which burn out during fire conditions. The blade profile is of aerodynamic double skin construction, and gives a low leakage metal to metal seal, that prevents the spread of spread of fire, smoke and toxic fumes.

The 1200 includes a unique and versatile jackshaft arrangement with an electrical thermal fuse rated at 74°C. When the temperature is reached the actuator power is disengaged and then the actuator closes the blades within 15 seconds. The blades are then held in the closed position by the knee-lock mechanism therefore not relying on the actuator to hold the blades closed.

The 1220 is UL555 Dynamic Fire Damper, 1 1/2 and 3 hour label (File No:9492)
UL555S classified Smoke Damper, Leakage Class I or II at 250 or 350°F (File No:9492)

The 1220 can be supplied in multiple sections in line with the maximum sizes tested. The actuator has to be factory fitted and be of a type that has successfully tested on the 1220 at elevated temperatures. Damper installation to be as UL specification that is sleeve and angle. All 1220 are supplied with the UL labeling stating classification.



Features & Benefits

- Independently tested UL555 and UL555S
- Unique double skin blade design that achieves low leakage tested to British and American standards without the need for synthetic blade seals.
- Closure maintained by the unique "knee-lock" mechanism which prevents blades from re-opening the damper.
- Wide range of actuators are available from Belimo, Honeywell and Johnson's to meet most requirements.
- Junction box including test button that allows easy site wiring connection.
- Damper can be supplied with Sleeves for easier installation.

Material Specification

Frame: 127 x 22 x 1.6mm (5" x 7/8" x 16ga.) galvanised steel hat channel.

Blades: 2.0mm (14 ga.) equivalent galvanised steel formed airfoil on 125mm (5") centres. Opposed action.

Linkage: Concealed in frame. 2.7mm (12 ga.) plated steel.

Bearings: Ø12.7mm (Ø1/2") self-lubricating oilite bronze.

Axles: Ø12.7mm (Ø1/2") plated steel double bolted to blades.

Jackshaft: Ø12.7mm (Ø1/2") cadmium plated steel.

Jamb Seals: Stainless Steel.

Control Options

Spring Closed

The actuator without power the blades will be in the closed position and when power applied the blades will fully open. In alarm the power would be removed the damper blades fully close within 16 seconds. When the mechanical fusible link reaches 74°C it breaks breaking the connection with the actuator. The blades would not reopen until the fusible link is replaced.

Blade Indication - Micro switches

To give indication of the blade position to BMS or similar micro switches that can be supplied integral to the actuator or mounted within the damper.

Actuator Details

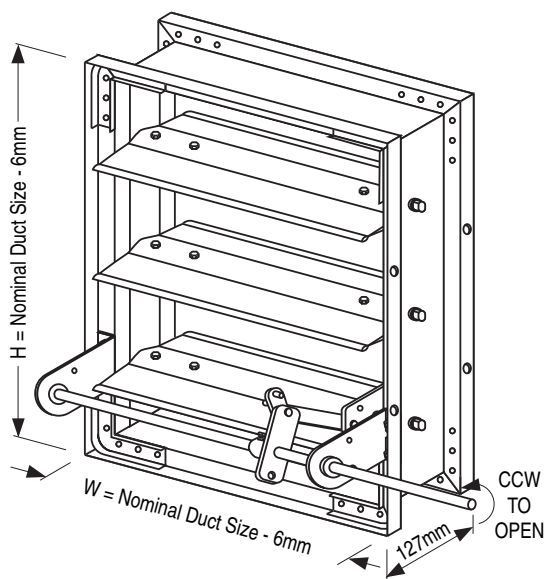
The UL specification 1220 damper can only be supplied with a specific range of actuators. For details on the full list of actuators available with the damper and all wiring details, please contact Advanced Air sales for further details.

Dimensional Detail

Sleeve Frame Models

Model 1220 1 1/2 Hour Label

Model 1220-3 3 Hour Label



Minimum Single Section Duct Size:
203mm x 203mm (8" x 8")

Maximum Single Section Duct Size:
914mm x 1210mm (36" x 48") Vertical Mount
813mm x 1219mm (32" x 48") Horizontal Mount

Note: In all correspondence with Advanced Air, duct sizes are stated as width x height.

For all other spigot and frame types, contact Advanced Air Sales.

Multiple Section Units

For requirements over the maximum allowable single section size, Advanced Air dampers can be provided in multiple section arrangements.

Maximum Multiple Section Duct Size (1 1/2 Hour Label Only):

Vertical Mount: 3658mm x 2438mm (144" x 96")

Horizontal Mount: 3251mm x 2438mm (128" x 96")

Note: 3 hour rated multiple section assemblies are not permitted.

Please contact Advanced Air Sales for further details.

Advanced Air 

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