Product Information

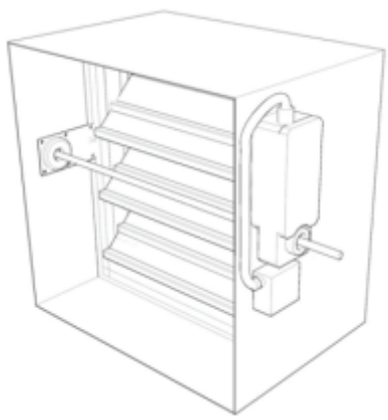
CARYAIRE™
Leadership Through Innovation

Smoke Damper Model : SD-B-U

Application

Model SD-B-U is a UL555S classified multi blade Smoke Damper with 3V style Blades. It is designed for closure of the HVAC duct opening in Smoke situations. It is Class1 Leakage Rated under UL555S at Elevated Temp of 350° F and is designed for velocities up to 2000 fpm at 4”w.g. pressure

Model SD-B-U can be installed vertically, with blades running horizontally with air flow in either direction.



Smoke Damper UL555S Classified

Constructional Details	
Frame Material	Galvanized Steel
Frame Material Thickness	16Ga
Frame Type	Hat Channel – 123mm wide
Blade Material	Galvanized Steel
Blade Material Thickness	16Ga
Blade Type	Triple V Type
Linkage	Concealed in Frame
Axle Bearing	Bronze sleeve, pressed into Frame
Axle Material	Plated Steel
Jamb Seals	Stainless Steel – Flexible Metal Compression Type
Blade Seal	Silicone
Open Close Switch (OCS)	Optional
Actuator	UL Classified Actuator(24V Standard)
Sleeves	Factory Fitted : Minimum 432mm long, 20Ga 180 GSM Galvanized Steel sheet

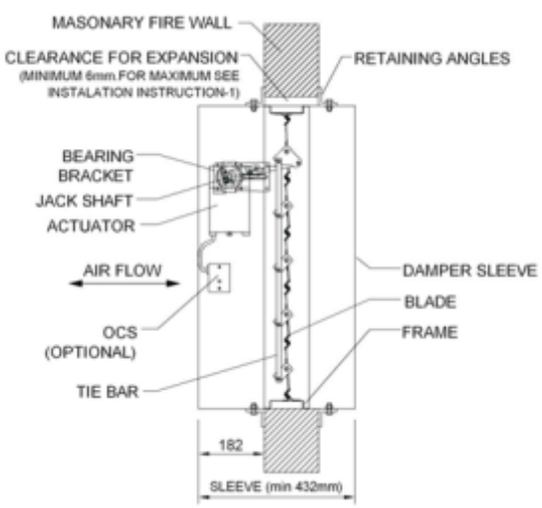
Dimensional Limitations	
Single Section 1220mm (H) x 914mm(W) (Maximum) 152mm H x 203mm W (Minimum)	**Multiple Section** 2438mm H x 3658mm W (Maximum)

Maximum Operational Ratings	
Description	Model SD-B-U
UL555S Leakage Rating	Class-1
Maximum Velocity	2000 fpm
Maximum Pressure	4 in. WG

Features

Model SD-B-U is a UL555SclassifiedSmoke Damper having UL555S Class-I rating at350° F elevated temperature. It has operational ratings up to 2000fpm velocity at 4”w.g. pressure It features a failsafe design which enables the damper to automatically assume the desired positionin case of Smoke Situation. Frame of the Damper is constructed with reinforced corners. Low profile slim line Top & Bottom frame is used in sizes less than 425mmhigh. Blades are reinforced with 3 longitudinal structurally designed “Vee’s

Model SD-B-U Installation



Note:- Caryaire Dampers are designed for the lowest possible pressure drop. Our engineering team processes each order individually and provides blade width for the desired heights and ensures that the damper has the highest free area, in open condition, and hence the lowest pressure drop. In order to do this, our blade widths may differ and protrude outside the damper frame from one or more sides, upto a maximum of 69 mm. (See Fig.-A)

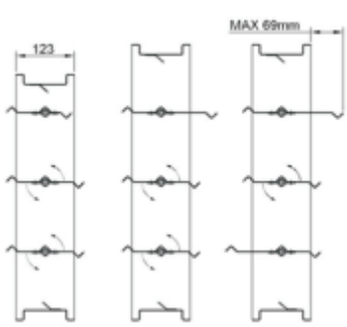


FIG-A

Suggested Specification

Smoke Dampers matching the following specifications shall be furnished and installed at locations shown in the drawings or described in the BOQ. Dampers shall meet UL555S class-I 350°F leakage Rating and operational rating up to 2000fpm velocity at 4”w.g. pressure.

Smoke damper frame shall be of 180 GSM galvanized steel of 16Ga thickness formed into a structural hat channel in 4-piece construction with integral overlapping gusset reinforcements (screws are not acceptable) in each corner to ensure perfect square shape. Top and Bottom frame members shall be low profile design to maximize the free area on small dampers and minimize pressure drop.

Smoke damper shall have blade configuration to ensure maximum free area and minimum pressure drop. Damper Blades shall be of single skin 180 GSM galvanized steel of 16Ga thickness with 3V groove construction. The blades shall be arranged in parallel to provide positive shut off. Each Blade shall have axles supported on both sides with sintered bronze self-lubricating bearings turning in an extruded hole in the frame. All Blades shall be interconnected using linkage concealed within the depth of Hat Channels.

Jamb seals shall be stainless steel flexible metal compression type. Blade seals & blade stop seals shall be UL listed silicone rubber gaskets.

Each Damper shall be supplied with a UL approved factory mounted 24 or 230 volt actuator as specified in BOQ. Actuator shall be selected to meet the torque requirements of the damper according to its size. Each Smoke Damper shall receive Smoke signal from smoke detector or Fire Panel to allow controlled closure of damper. Instantaneous damper closure is unacceptable. Smoke Damper should be able to close upon receiving a signal from Smoke detector or the Fire Panel. Remote indication of Blade Position can be made through an Open Close switch (OCS) as optional accessory if asked for.

Each Damper shall be supplied with a factory mounted sleeve made from Minimum 20Ga thick 180 GSM galvanized steel of minimum 432mm length. Silicone sealant shall be applied to the joint between the frame and sleeve to avoid air and smoke leakage.

Damper sizes greater than UL approved single section size shall be supplied in multi module configuration.

Contractor must provide an access door in the duct close to the damper to facilitate periodic inspection and maintenance on the damper.

Damper shall be Caryaire Model SD-B-U and shall have a factory fixed UL sticker.

FIG-A