

HCD ET – Elevated Temperature Smoke Damper

Model: HCD - 150/75 - ET

The Holyoake HCD ET is a elevated temperature version of the HCD-150 or HCD -75 volume control dampers. It is suited for tight sealing smoke damper installations. It offers great structural strength and very low resistance when open.

Smoke damper rating:

As required for a smoke damper under AS1682.1-2015 the HCD-150 ET has been tested to AS1530.7-2007.

The air leakage of the damper is tested at 200°C and must be under 360m³/hr/m² at 300 Pa.

• Warringtonfire

Summary of Assessment No. SOA-47931300

Ambient & Medium Temperature Air Leakage Test in accordance with AS 1530.7-2007 on an Holyoake HCD ET Smoke Damper.

HCD ET installed either into smoke separating wall or ducted within 600mm from the wall opening.

Maximum leakage @300 Pa

Ambient	91m ³ /hr/m ²
Elevated Temperature (@ SRC)	118 m ³ /hr/m ²

• Warringtonfire

Certificate of Test No. FRT-210015

Operation of the HCD-ET after two hours at 200°C as per the performance requirements of AS 1682.1 Table 5 for Air Dampers.

HCD-150 Standard Construction

Frame: 6063 T5 extruded aluminium with mitred corners, mechanically locked with heavy aluminium gussets.

Blades: 6063 T5 three cavity full airfoil extrusion for main blades on 146 mm centres and half airfoil part blade for intermediate heights.

Linkage: Concealed in frame, with stainless steel cranks and steel link pins and aluminium control bars.

Axles: Hexagonal.

Bearings: Two piece moulded glass reinforced nylon, pressed into frame, with the outer sleeve locked by locating ribs. (-8°C to 220 °C)

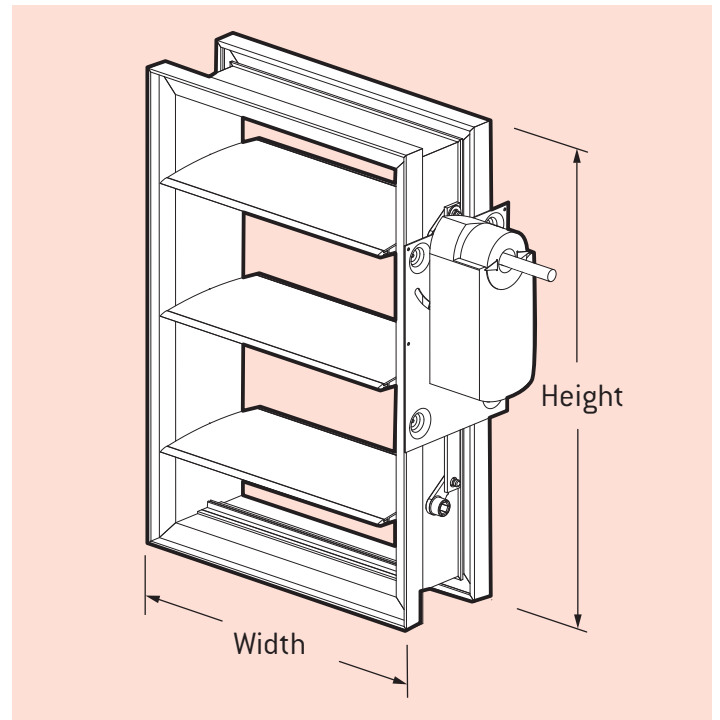
Seals: Blade edge and Jamb: Extruded silicone, (0°C to 225°C).
Side Seal: Flexible (convex) aluminium.

Blade Rotation: Opposed

Finish: Mill.

Minimum Size: Channel Surround 200 mm Wide x 225 mm High.
Flange Surround 150 mm Wide x 168 mm High.
(Air Stream).

Maximum Size: Channel Surround 1525 mm Wide x 1831 mm High.
Flange Surround 1400 mm Wide x 1774 mm High.
(Air Stream).



HCD-75 Standard Construction

Frame: 6063 T5 extruded aluminium with square cut ends, mechanically joined with screws tapped into screw pipes.

Blades: 6063 T5 three cavity extrusion providing a full airfoil section.

Linkage: Concealed in frame, with stainless steel cranks and link pins and aluminium control bars.

Axles: Hexagonal stainless steel.

Bearings: Two piece moulded glass reinforced nylon, pressed into frame, with the outer sleeve locked with locating ribs (-8° to 220°C).

Seals: Blade edge & Jamb: Extruded silicone, (0°C to 225°C).
Side Seal: Flexible (convex) aluminium.

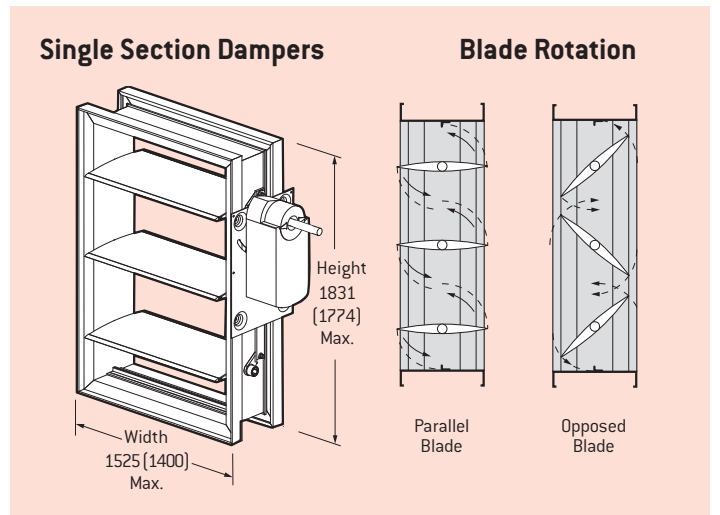
Blade Rotation: (Standard): Opposed

Finish: Mill.

Minimum Size: 150 mm wide and 95 mm high (Air Stream).

Maximum Size: 950 mm wide and 898 mm high (Air Stream).

General: The specified size is the duct airstream size. The actual overall size is the airstream size plus 50 mm.



Elevated Temperature Smoke Damper – HCD-ET

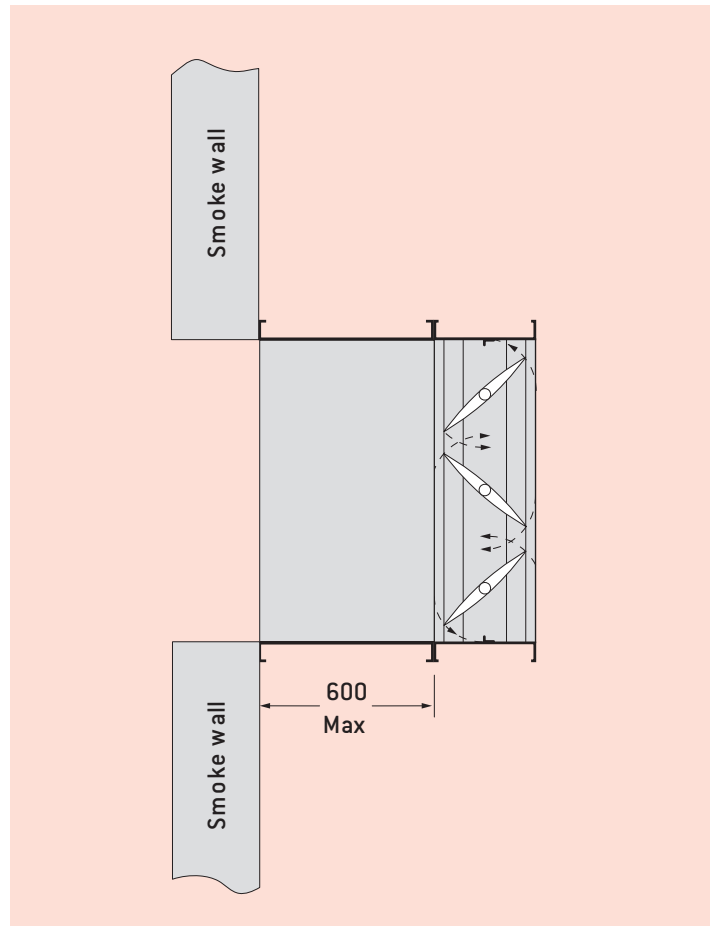
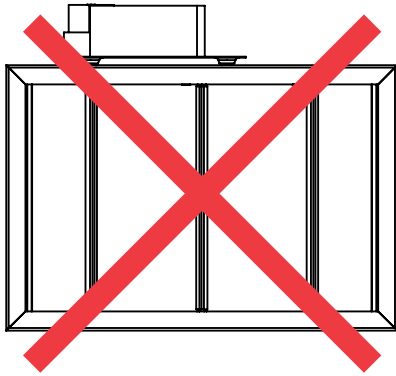
Installation

Smoke dampers can be installed up to 600mm away from the smoke barrier and must be installed with smoke resistant ductwork. The duct penetration should be sealed with flanges and the sealant used should be suitable for elevated temperatures (200°C). The flanged HCD ET damper surround has been designed specifically for use with proprietary duct flanging systems.

Smoke dampers may be installed in either vertical or horizontal applications, but in all cases the blade axles must be horizontal. Smoke dampers must be fitted with fast running actuators with a travel time less than 30s in either direction and capable of closing under the design airflow. This can be either spring return or driven closed by a building management system (BMS).

The installer must ensure that the damper is installed square and free from racking but should be effectively retained so it can not be dislodged during normal use. Smoke dampers do not require the use of breakaway joints when being used solely as a smoke damper.

For more information see AS1682.2 clause 6.2 and Appendix B.



Notes

Motorised HCD-ET dampers must not be installed with the axes vertical.

Due to a policy of continuous development and improvement the right is reserved to supply products which may differ slightly from those illustrated and described in this publication.

Product Ordering Key and Suggested Specifications

HCD-ET-75 HCD-ET-150	-	CHANNEL LOW PROFILE CHANNEL FLANGE SURROUND	-	OPPOSED PARALLEL	-	W x H
Holyoake Smoke Dampers with 75 or 150 mm aluminium airfoil blades.		Frame Style		Blade Rotation: Opposed (Standard) Specify Parallel		Nominal Duct Size

Smoke Dampers shall be low leakage type extruded aluminium construction, with single piece airfoil blades, fitted with self inflating edge seals. Blades shall be fixed to 11 mm hexagonal shafts, held by two piece acetal self lubricating bearings, with outer shells fluted to prevent rotation. Frames shall be suitable for either internal fixing within ductwork, or external duct flange mounting and shall be fitted with flexible aluminium side seals. Linkages shall be out of the airstream. Smoke dampers shall be tested to AS1530.7-2007 and have a leakage less than 360 m³/s/m² at 300Pa and 200°C.

All shall be type HCD-75, or HCD-150, as manufactured by Holyoake.

