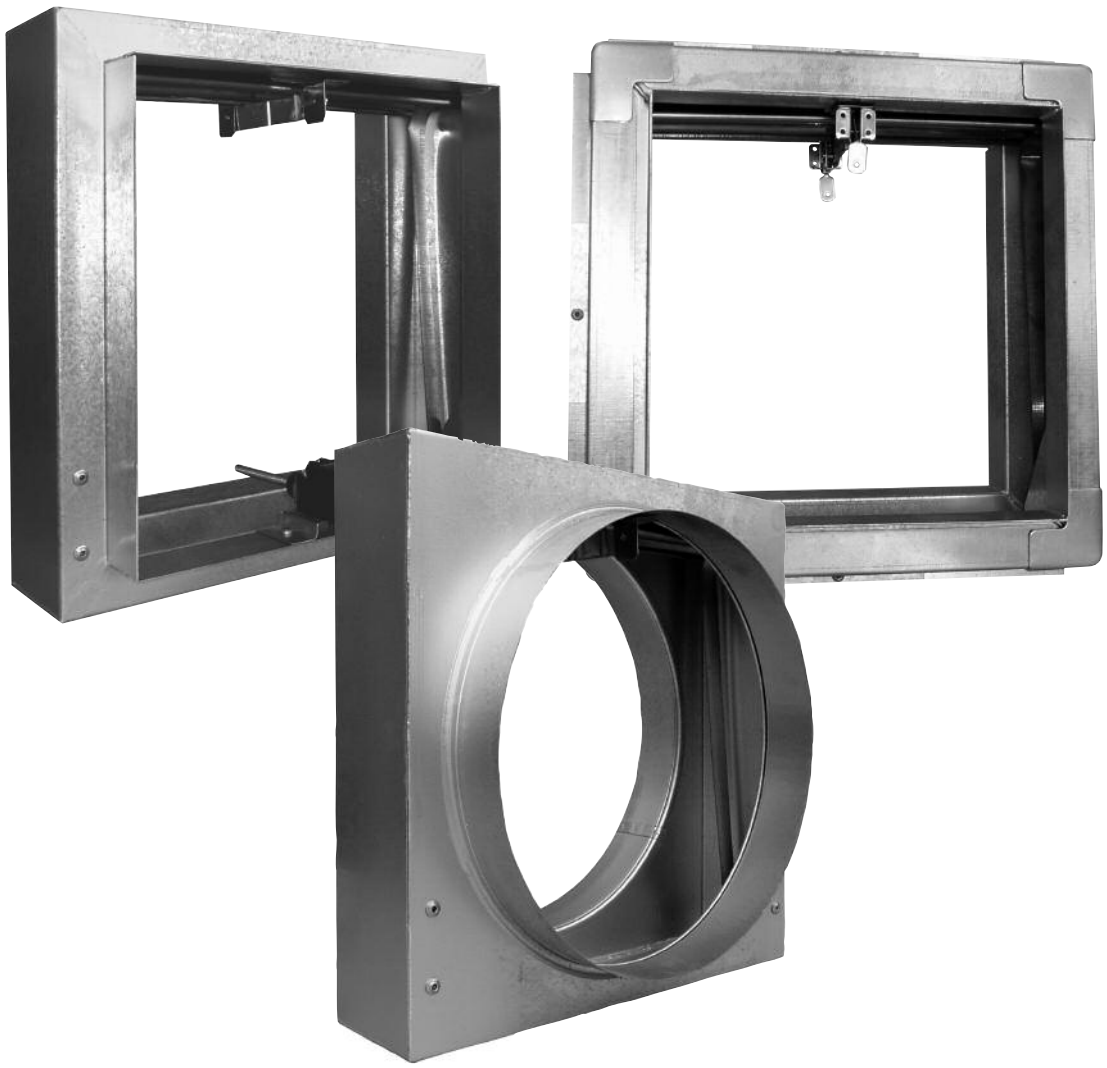
AIRFLOW AC

Shutter Fire Damper

Type SFD



Airflow AC Middle East FZE-LLC

Email:- airflowacme@gmail.com

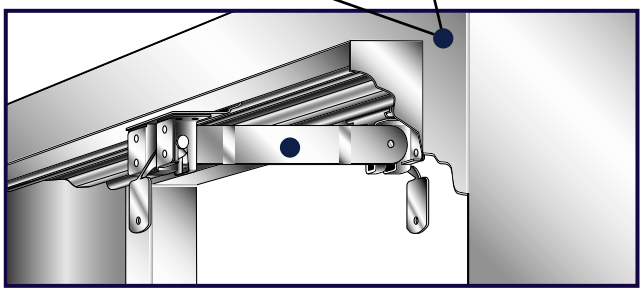
www.airflowac.me

Paint

All welds, seams and joints are sprayed with commercial grade zinc based paint.

Sealant

Where applicable. Conforms to DW144



Casing

Formed to provide two continuous internal flanges not less than 30mm.

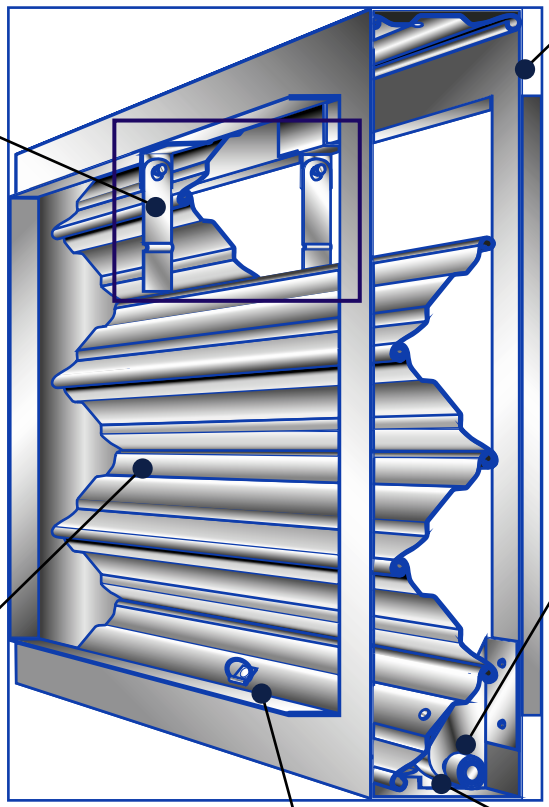
Casing and components not less than 1.2mm thick Galvanized sheet steel Z275 G90 as standard.

Optional casing from Stainless steel 304 or 316L.

Fusible Link

Blades are held in open positions fusible link rated 72 Deg. C. UL listed with galvanized steel fuse holder welded to the frame.

Fusible link can be supplied with the following options:
100 °C
125°C
165°C



Side Seals

Grade 304 0.3mm stainless steel side seals available as options.

Closure Springs

Dampers are supplied with two constant force coil springs. With one end fixed to the leading blade by galvanized rivets and the coil fitted into the spindle of the locking ramp. Spring are stainless steel Material.

Blades

Blades formed from roll formed steel continuous interlocking hinge extending the full length with dual groove providing strength from 0.7mm galvanized sheet steel Grade 304 or 316L stainless steel available as optional.

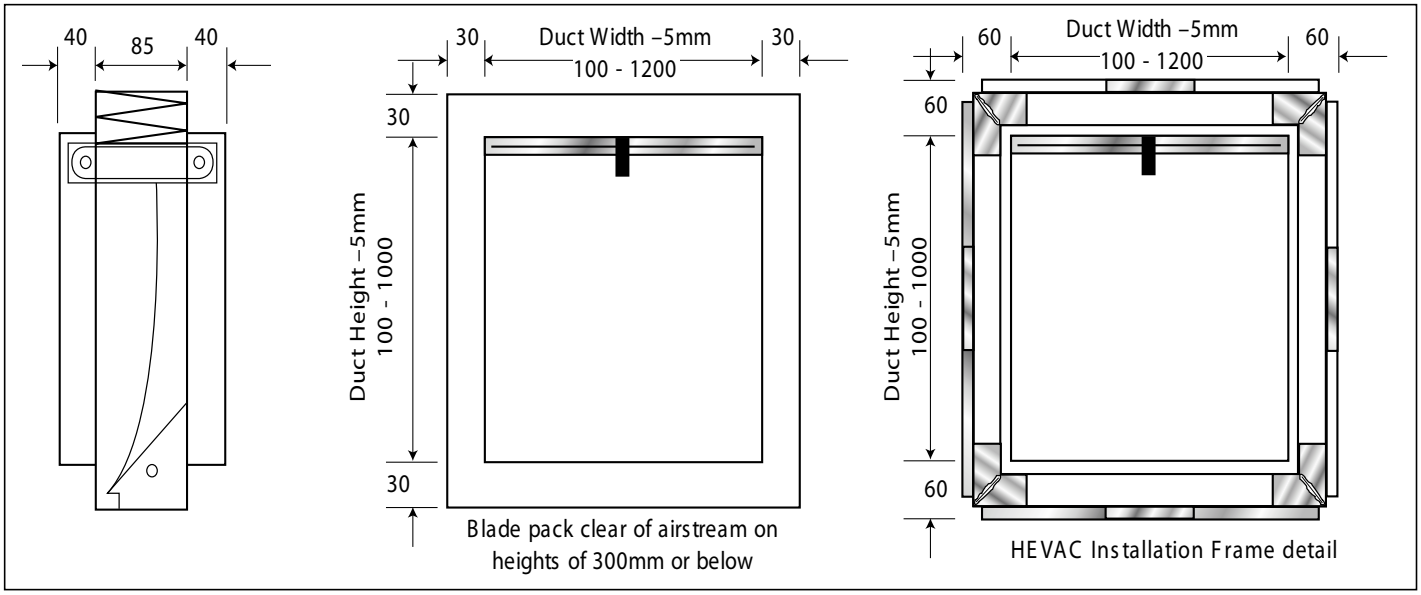
Pull Ring

Fire dampers can be provided with pull ring as option to allow resetting damper from non access size.

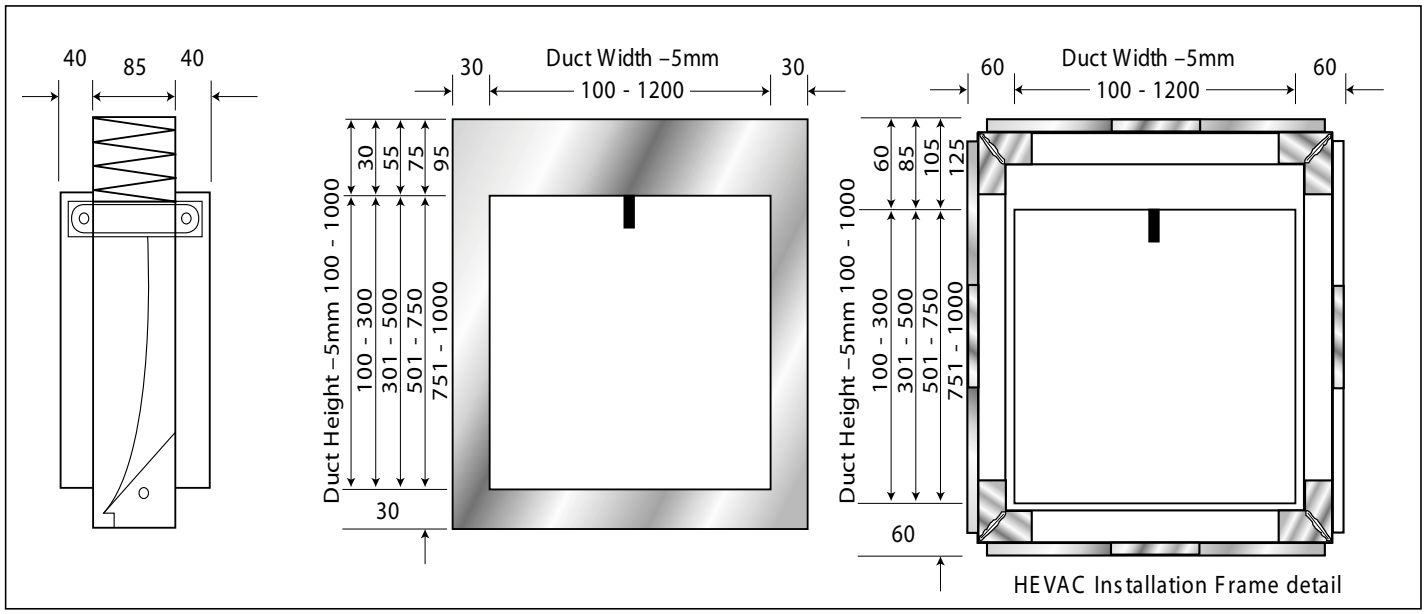
Locking Ramps

Dual Locking ramps ensure positive closing action of the blade pack in horizontal or vertical installations.

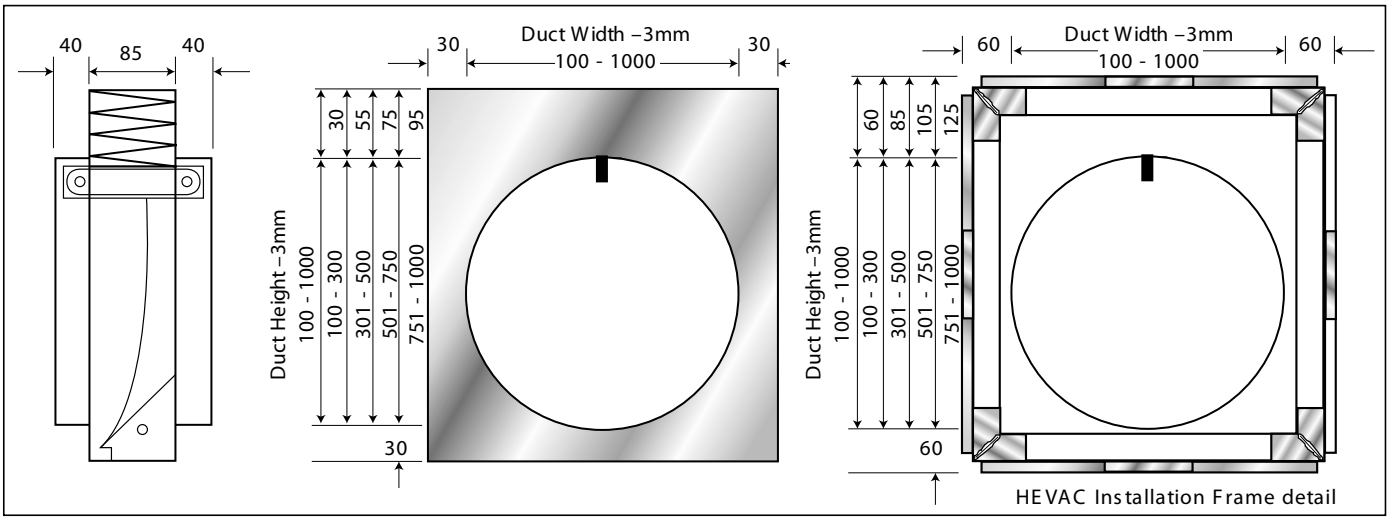
Type SFD-1S - Blades partially in the airstream



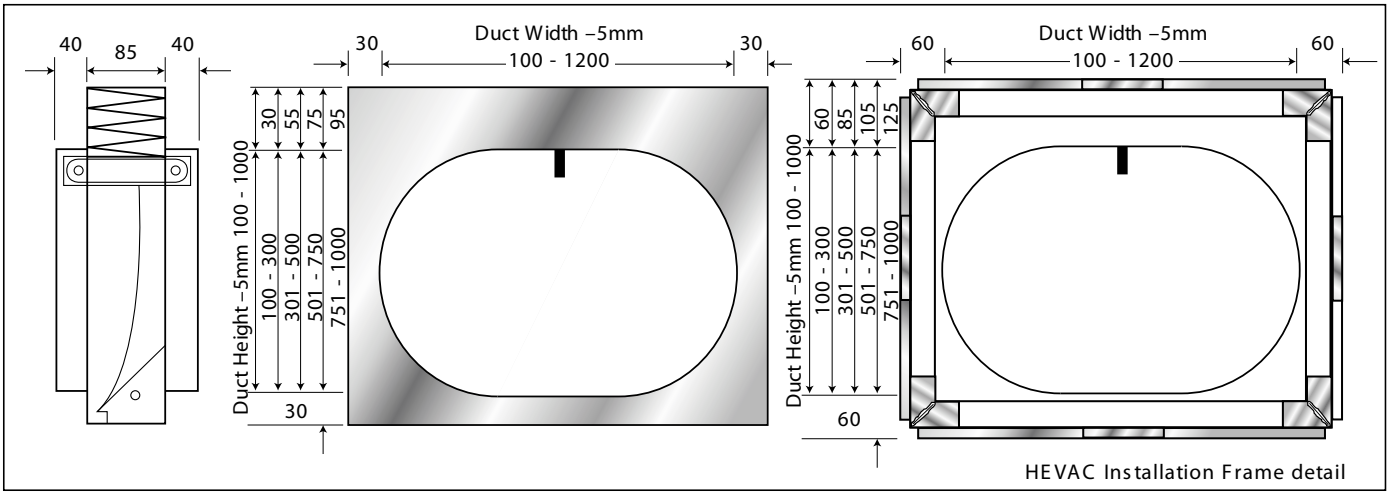
Type SFD-2S - Blades out of airstream



Type SFD-CH - Circular Spigot - Blades out of Airstream



Type SFD-OH - Oval Spigot - Blades out of Airstream



Notes: 1. All dimensions are in mm 2. Spigoted Models are supplied with actual spigot dimensions nominal less 5mm ± 1mm (3mm ± 1mm for type C)
3. For sizes greater than detailed maximum sizes, multiple section units would be supplied

HEVAC/HVCA Installation Frame

The installation frame are factory fitted around the damper to allow expansion without distorting stresses within the surround structure within which the assembly is installed.
The Frame is formed with 'Z' section using 1.2mm galvanized mild steel , corner brackets from 1.5mm 'Z' section. A number of fixing tabs are positioned equally along each side of the frame for positive fixing into surrounding builders work to maintain structural integrity.

Duct Dimension (mm)	No. of equally spaced fixing points per side
Up to 508	1 Minimum
509 to 1016	2 Minimum
1017 to 1524	3 Minimum

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Description

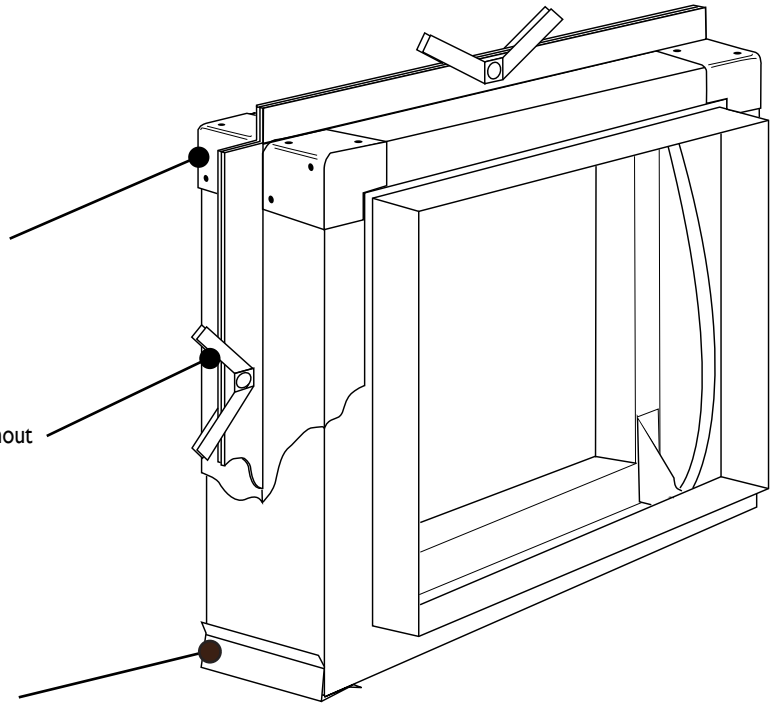
HEVAC frame

The HEVAC approved factory fitted installation frame is designed to allow expansion of the damper under fire conditions, without affecting its integrity or the construction its installed within.

ONE PIECE CORNER BRACKET
The one piece corner bracket is rivetted to the frame section. The bracket allow the frame to expand under fire conditions without affecting the integrity of the construction its installed within.

FIXING TIE TABS
For securing the assembly into the builders work structure as specified by Civil Defence Authority,

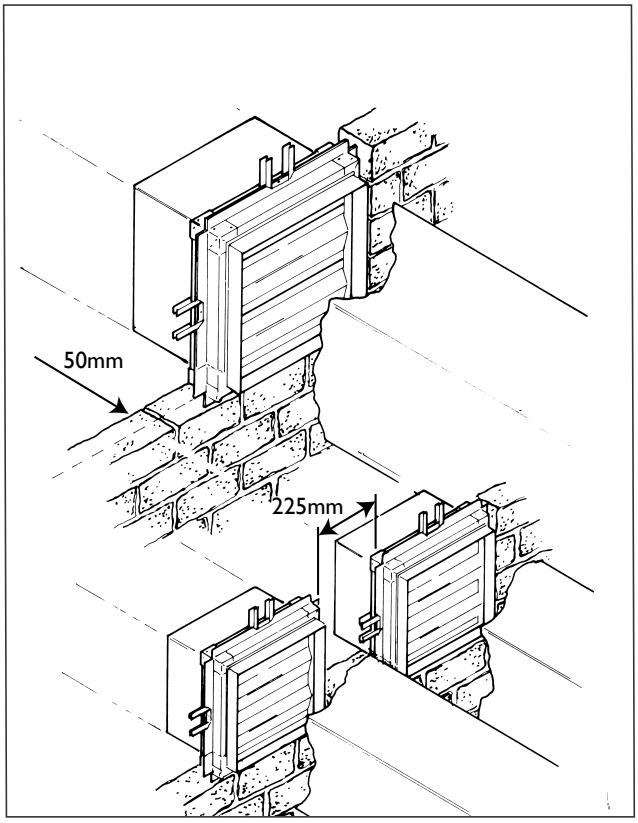
EXPANSION CORNERS
These pressed corners are fitted into each corner to the permit expansion of the fire damper within the construction of the frame



Installation of HEVAC frame

The Frame should be installed centrally within the thickness of the surrouding wall or floor or in case of thick wall or floors, the centre line should be 50mm away from the nearest frame.

Where more than one duct penerates a wall or floor builders work of a minimum thickness of 225mm. During installation, all tabs should be bent out and built into the surrounding structure so as to ensure positive fixing into the sourrounding builders work.



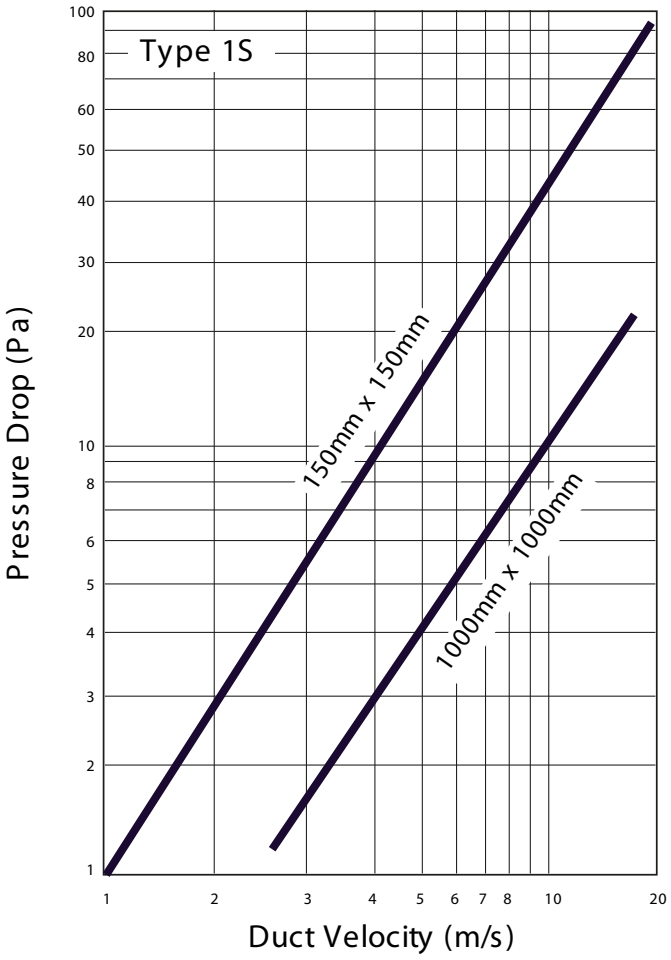
Expansion Gap

Damper Size B or H (mm)	Minimum clearance on each side of the casing
100 to 500	3 mm
501 to 1000	6 mm

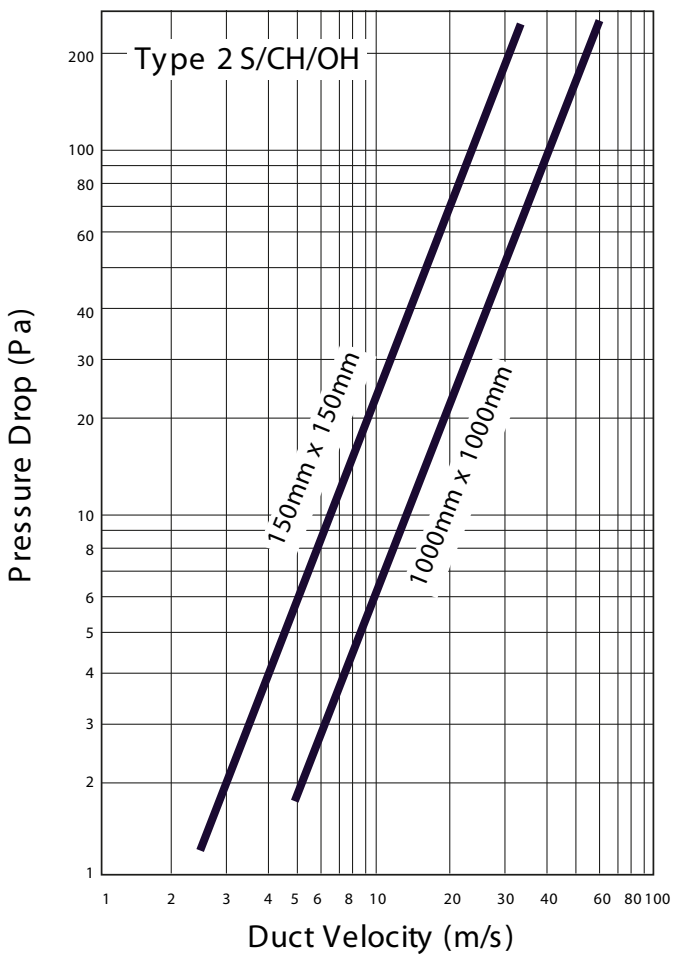
The provision of the expansion gap around the damper casing is critical to the performance of the fire damper in the event of a fire.

The sleeve 'B" & "H' dimensions are designed for 'S' cleat joints to the metal ductwork.

Pressure Drop



Minimum free area = 91% Velocity range 0 to 12.5 m/s



Maximum unrestricted airflow Velocity range 0 to 30m/s

Weight chart(Kg) Model 1S & 2S

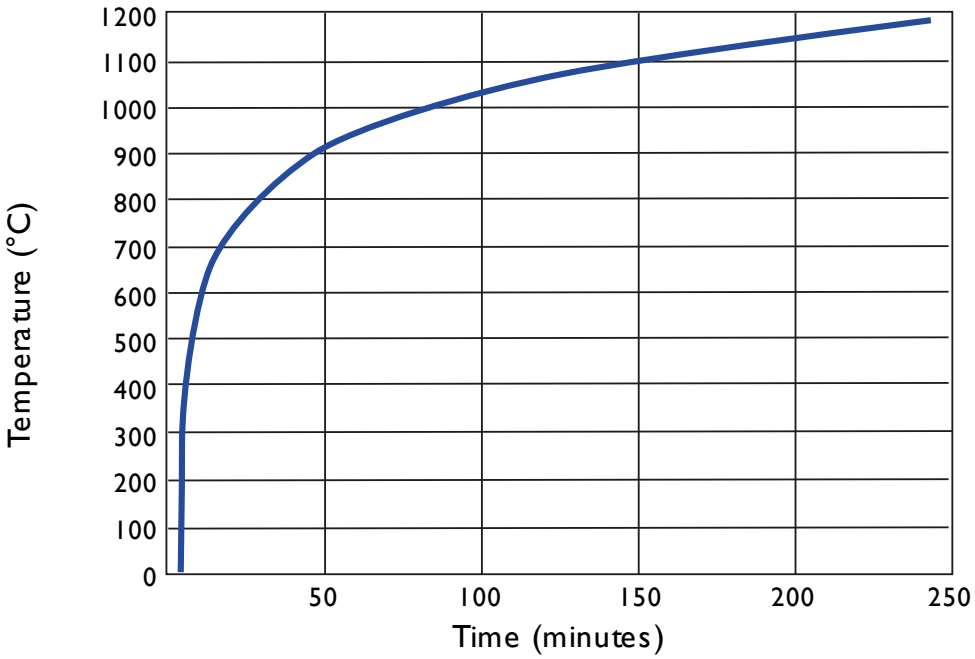
Damper Height (mm)	Damper Width (mm) 100	200	300	400	500	600	700	800	900	1000
100	2.0	3.0	4.0	5.0	6.5	7.0	8.0	9.0	9.5	10.0
200	3.0	3.5	4.0	5.0	7.0	8.0	9.0	10.0	11.0	12.0
300	3.5	4.0	4.5	5.5	7.0	9.0	9.5	10.5	12.0	13.0
400	4.0	5.0	5.5	6.0	7.5	10.0	11.0	12.0	13.0	14.0
500	5.0	6.0	7.0	7.5	8.5	11.0	12.0	13.0	15.0	16.0
600	6.0	7.0	8.0	8.0	9.5	12.0	13.0	14.0	16.0	17.0
700	7.0	8.0	9.0	9.5	10.5	13.0	14.0	15.0	17.0	18.0
800	8.0	9.0	10.0	10.0	12.0	14.0	15.0	16.0	18.0	19.0
900	9.0	10.0	11.5	12.0	14.0	15.0	15.5	17.0	18.0	20.0
1000	10.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	20.0	22.0

FOR CIRCULAR AND FLAT OVAL MODELS ADD 25% TO THESE VALUES

For models with HEVAC/HVCA installation frames, add a further 25%. These values have been rounded to whole numbers and are illustrated for estimation purposes only.

Fire Test

BS. Part 20, 1987 for 4 hours.

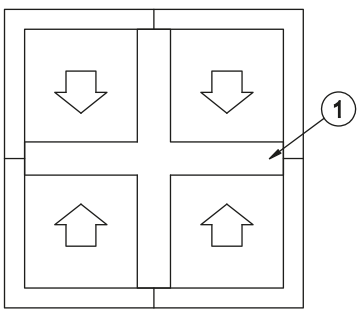


Multiple Assemblies.

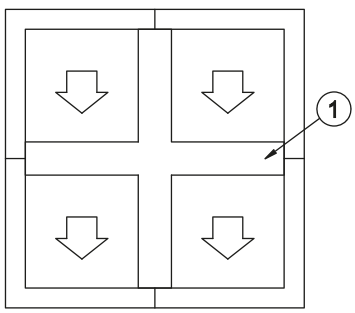
Damper are either welded together as a multiple construction or alternatively supplied loose with 1.5mm galvanized steel. "U" shaped joining formed 60mm x 40mm.
These would normally be supplied undrilled for on-site installation by others.

Special Note:
When Multiple units are ordered with HEVAC frame, these would be supplied fully assembled with installation frame fitted.

Multiple Assembly in Horizontal Duct



Multiple Assembly in Vertical Duct



(1) Type U Channel Frame