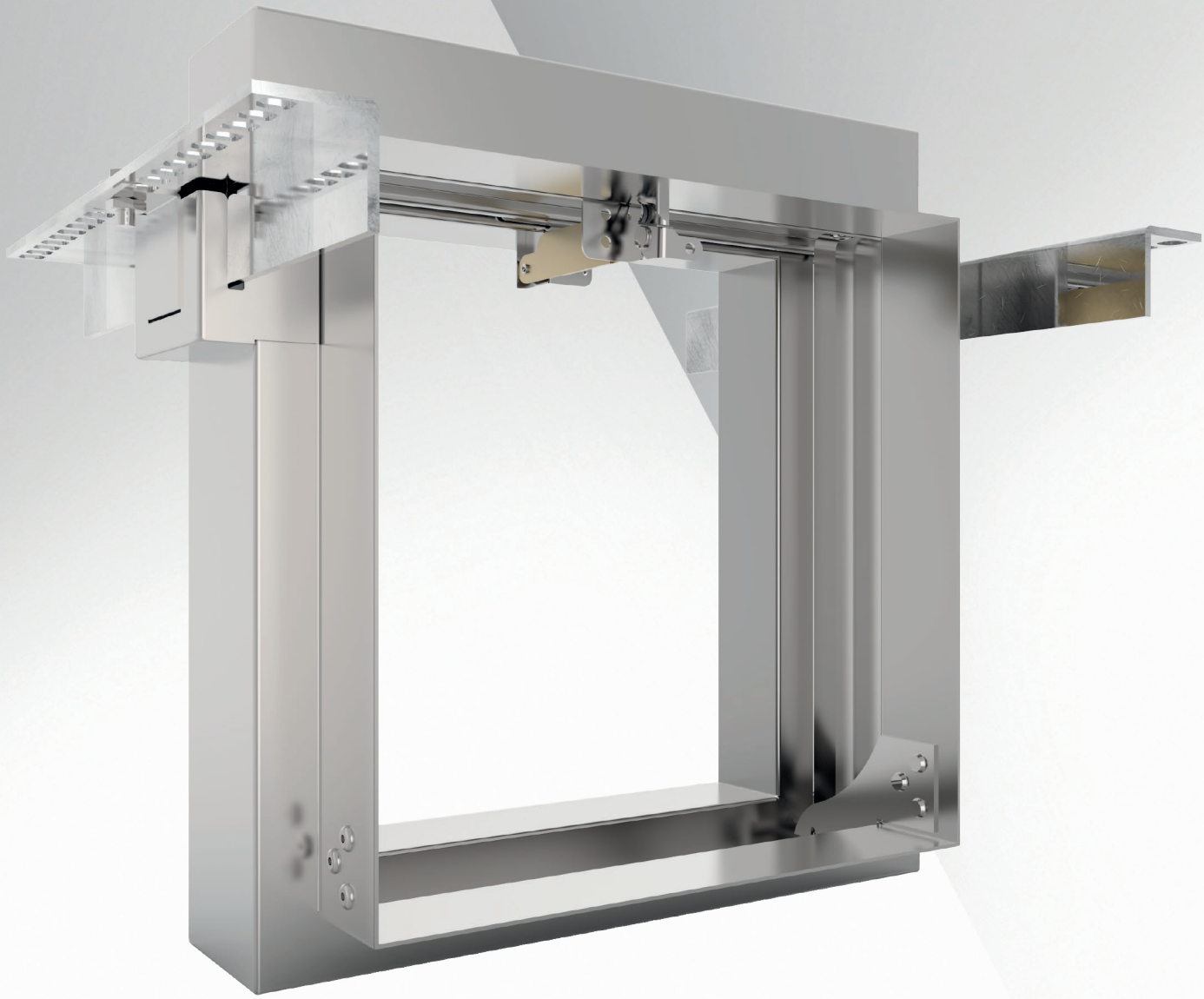
ADVANCEDAIR



ADVANCED AIR
FIRE DAMPER

ADVANCED AIR
FIRE DAMPER

Introduction

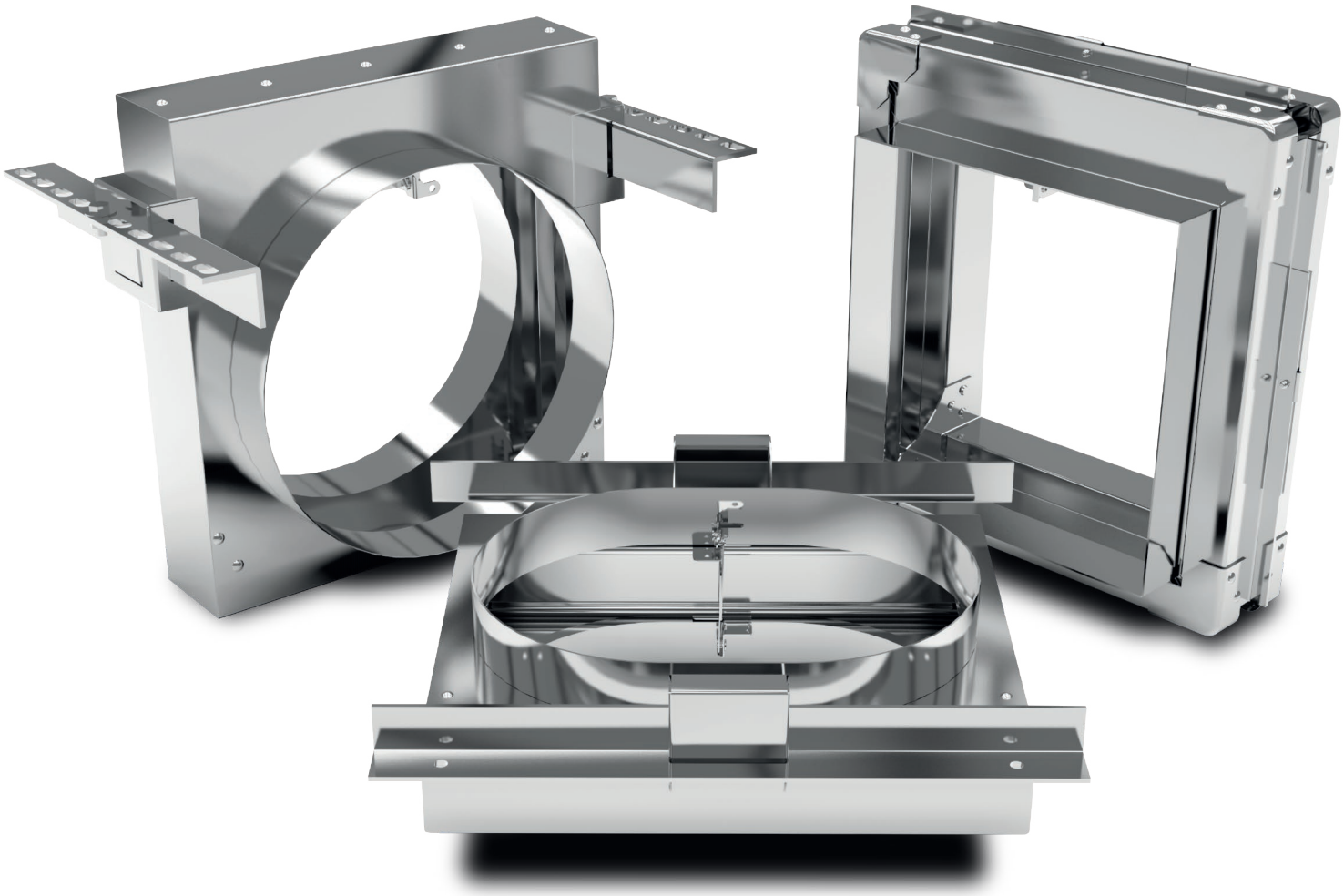
The Advanced Air range of fire dampers are designed to stop the spread of fire through ventilation ducts passing through walls and floors. The range incorporates features required by specifiers, contractors and fire authorities, and embodies the combined experience of Nailor Industries Inc. (Canada and United States of America) and Advanced Air (UK) Limited, in design, manufacture, sales and service.

Fire tests

In accordance with the Construction Product regulation the fire dampers meet the requirements of the harmonised standard BS EN 15650. The dampers have been tested to BS EN 1366-2 for both horizontal / vertical also single and multiple units. Each installation method has also been tested in both directions being been classified in line with BS EN 13501-3. All tests and classifications have been approved by BRE with a Certificate of Constancy of Performance on which we have issued a Declaration of Performance that can be seen on our website.

Quality assurance

In line with the harmonised standard BS EN 15650 Factory Controlled Procedures are in place covered by the fully audited Quality Assurance system assessed to BS EN ISO 9001:2015. The company is registered to this standard with LPCB (Certificate No. 128).



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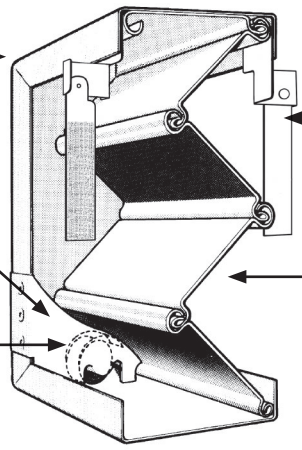
ADVANCED AIR
FIRE DAMPER

Material specification

Casing
Manufactured from corrosion resistant galvanised steel as standard (grade 430 stainless steel optional).

Blade guide / locking ramps
Galvanised steel locking ramps ensure positive blade closure within integral blade guides.

Springs
Stainless steel coil tension springs ensuring powerful blade closure when appropriate.



Easy Maintenance Link (EML)
Allows the damper to be tested safely and quickly. Alternative temperature rated fusible link mechanisms optional.

Blades
Rollformed single skin interlocking galvanised high integrity shutter. (Grade 430 stainless steel blades optional).

Pull rings
To enable resetting of the damper from the non-access side (specific sizes only).

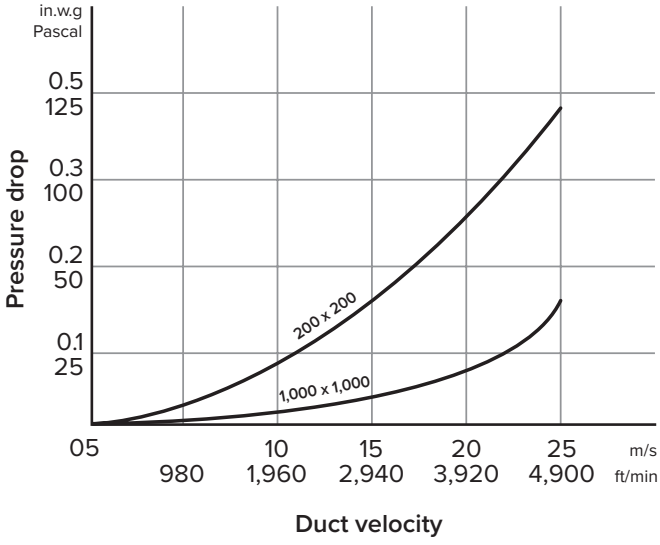
Product specification

Casings: are manufactured from 1.2mm galvanised mild steel. For 0160-20 Models over 1 metre in diameter, the casing is manufactured from 1.6mm galvanised mild steel.

Blades: are specially roll-formed from 0.8mm galvanised mild steel as standard. “Horizontally” and where specified “Vertically” mounted units, are complemented with two stainless steel coil type constant tension springs.

Fusible link: Easy Maintenance Link (EML) rated at 72°C nominal supplied unless specified otherwise. See page 7 for options.

Performance data – 100% free area



Corrosion test

The 100% galvanised mild steel construction models have been successfully corrosion tested to BS EN 60068-2-52, and BS EN 60068-2-11. Both of these tests involve exposing the damper to an intense salt spray over an extended period, to simulate use of the damper in a corrosive environment. After the salt spray tests the dampers are tested by triggering the thermal release mechanism in the normal way to test the operation.

The Advanced Air 0160 series dampers operated correctly after both tests which was documented in a full test report from two independent test facilities.

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FIRE DAMPER

Multiple vertical arrangement

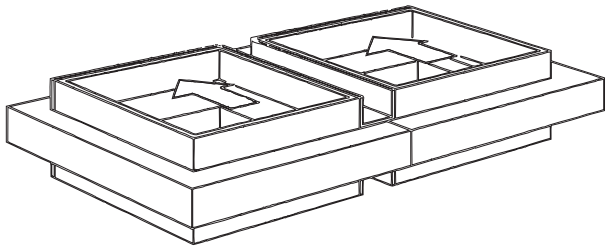
Where multiple arrangements of fire dampers are required to be fitted, the installer should submit his proposed arrangement to the relevant local authority or fire officer responsible for installation. Closure strips of 1.2mm galvanised sheet steel in "U" formed sections are supplied undrilled with all Advanced Air Damper multiple assemblies of the spigotted type, for positioning as shown to form centre mullions 50mm x 50mm.

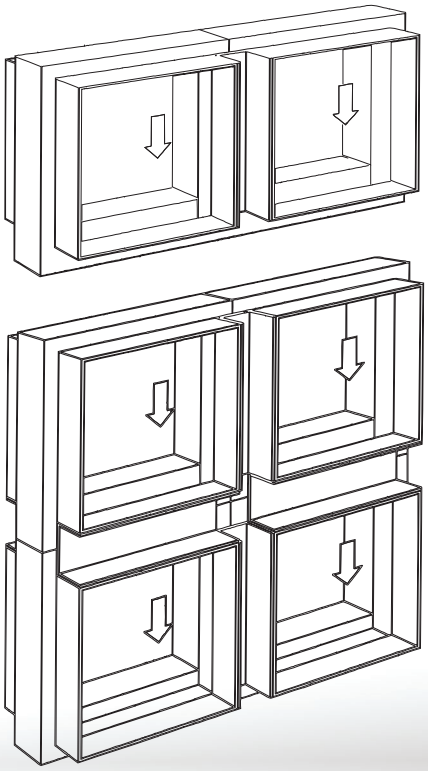
Unit type	Maximum size
0160 and 0160 oval	2,000 x 2,000mm*
0160 circular	ø1,000mm

* Can be supplied larger on the provision that they are also structurally supported to a fire safe design provided by competent structural engineers.

Multiple horizontal arrangement

Unit type	Maximum size
0160 and 0160 oval	2,000 x 1,000mm
0160 circular	ø1,000mm







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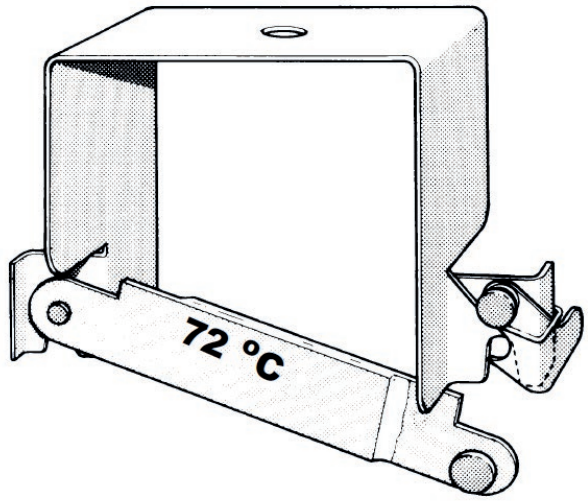
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ADVANCED AIR
FIRE DAMPER

Fusible elements

Standard fitment – Easy Maintenance Link (EML)

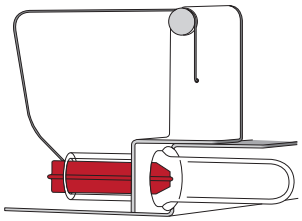
Allows the fire damper to be tested quickly and safely. The damper can be mechanically released and reloaded with one hand on small units from indicated side of the duct.



Optional fitment –
Visual Position Indicator (VPI)

The Visual Position Indicator (VPI) is fitted at the bottom of the damper to give mechanical indication of the damper status.

Available in most damper configurations – please contact our sales team for advice.



0160 AFS – nett weights (kg)

Duct width (mm)

Duct height (mm)	100	200	300	400	500	600	700	800	900	1,000
100	2	3	4	5	6	8	10	11	12	14
200	2	4	5	6	8	9	11	12	13	16
300	4	5	6	8	9	10	12	13	14	18
400	5	6	8	10	11	12	13	14	16	20
500	6	7	10	12	13	14	15	16	18	22
600	7	8	12	14	15	16	17	18	20	24
700	9	10	13	15	16	17	18	19	21	26
800	11	11	14	16	17	18	19	20	22	27
900	12	13	14	17	18	20	21	22	24	28
1,000	15	16	18	20	22	24	25	26	28	32

0160 HEVAC – nett weights (kg)

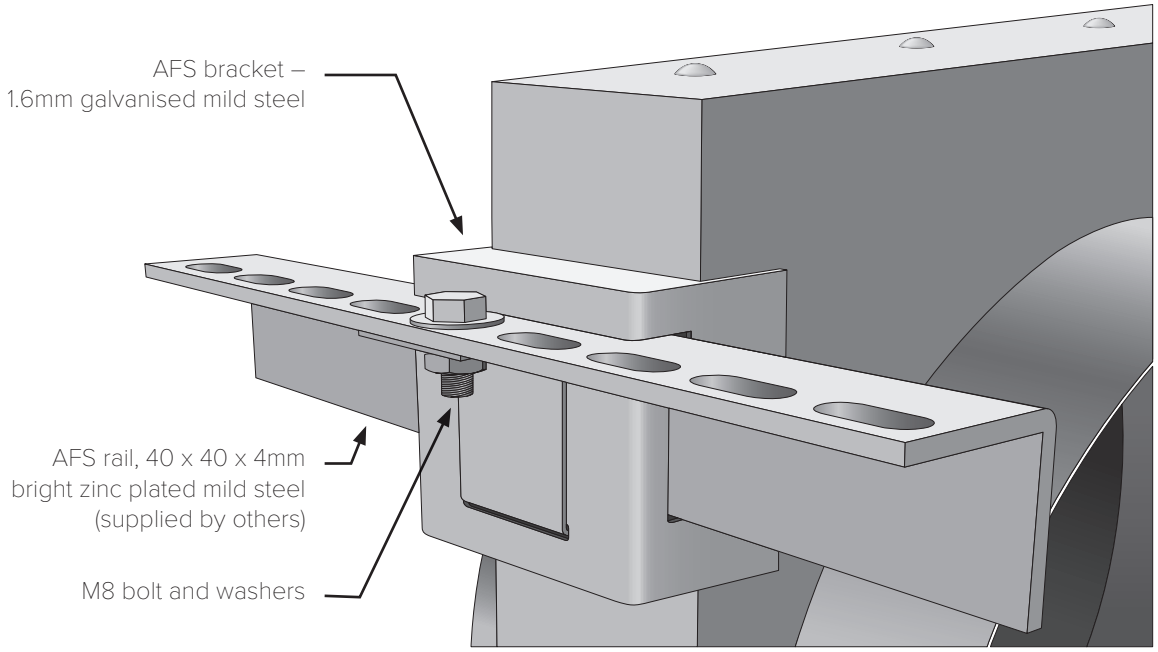
Duct width (mm)

Duct height (mm)	100	200	300	400	500	600	700	800	900	1,000
100	3	5	6	8	9	12	15	17	18	21
200	3	6	8	9	12	14	17	18	20	24
300	6	8	9	12	14	15	18	20	21	24
400	8	9	12	15	17	18	20	21	24	30
500	9	11	15	18	20	21	23	24	24	33
600	11	12	18	21	23	24	26	27	30	36
700	14	15	20	23	24	26	24	29	32	39
800	16	16	21	24	26	24	29	30	33	41
900	18	20	21	26	24	30	32	33	36	42
1,000	23	24	27	30	33	36	38	39	42	47

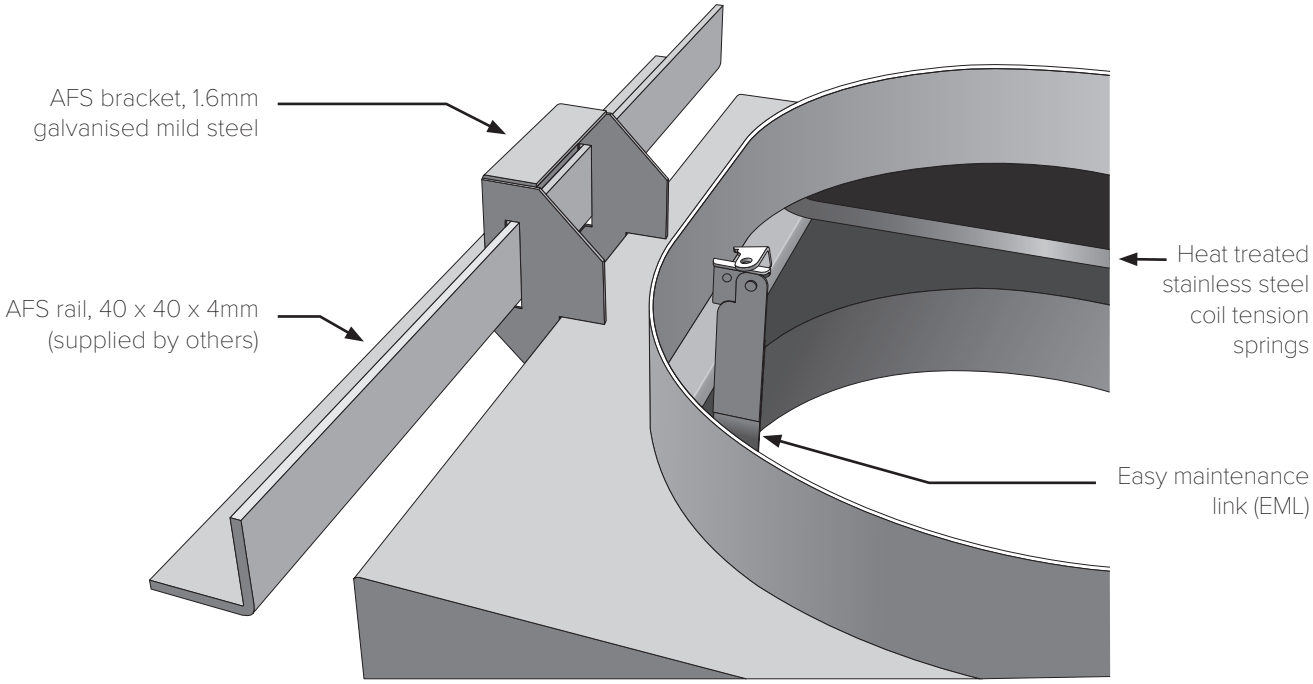
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Installation method – AFS (wall)



Installation method – AFS (floor)



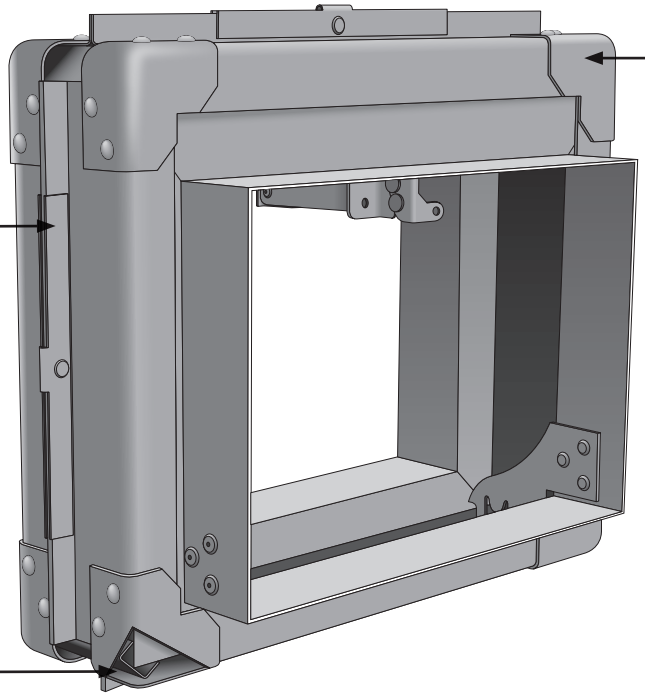
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ADVANCED AIR
FIRE DAMPER

Installation method – HEVAC

The installation frame is factory fitted to its respective fire damper and the assembly is delivered to site as one unit. It obviates the need for sleeve and angle fitting and allows expansion of the fire damper in a fire condition within the frame, so that the integrity of the fire wall or floor is not affected.



Corner joints fitted with all aluminium rivets ensures unimpeded expansion of frame.

Flange with fixing tabs ensures maximum captive strength when fitted to builders' work.

Corner mitres allow for frame expansion. Fire damper is located centrally by folded corner spacers.

Notes on HEVAC installations

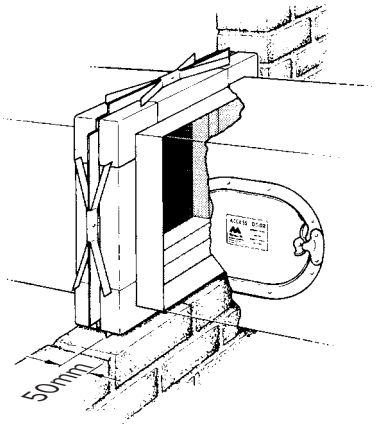
(a) in brickwork or blockwork walls and floors, the tabs shall be bent out and solidly built into mortar joints between the brickwork or blockwork;

(b) in the case of reinforced concrete walls and floors, the tabs shall be bent out and tied with wire to the reinforcing bars which will be deliberately left protruding into the opening and then the gap between the installation frame and the builders work backfilled with mortar or concrete on both sides of the flange

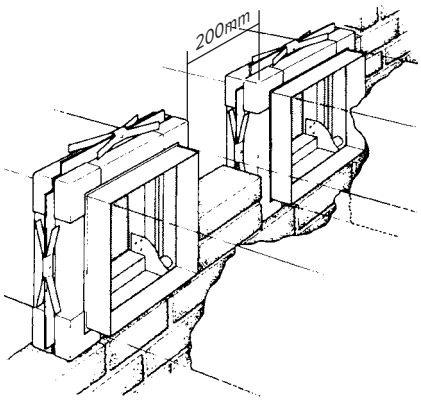
(c) it is recommended that the fixing tabs are welded, bolted or wired back to supporting steelwork or an equivalent rigid structural member, to ensure that the installation strength is maximised.

Notes on all installation types

The standard duct access door sizes have been selected after careful study of the needs of site engineering and maintenance personnel. Each door allows a different degree of access, enabling the most appropriate unit to be specified, depending on the type of equipment installed in the ducting, and the likely maintenance needs.



Adjacent dampers must be separated by builders work of minimum thickness of 200mm (between installation frame upstand flanges) unless approval has been previously obtained from the appropriate authority.



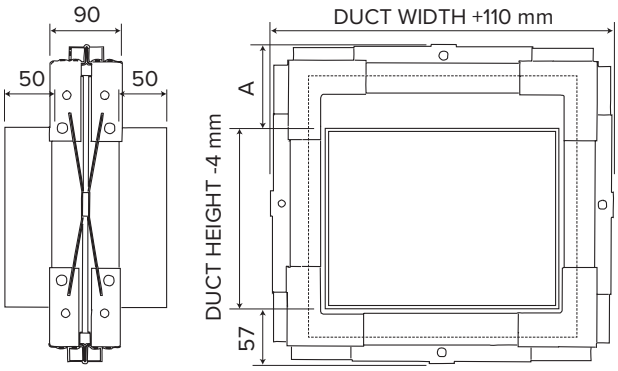
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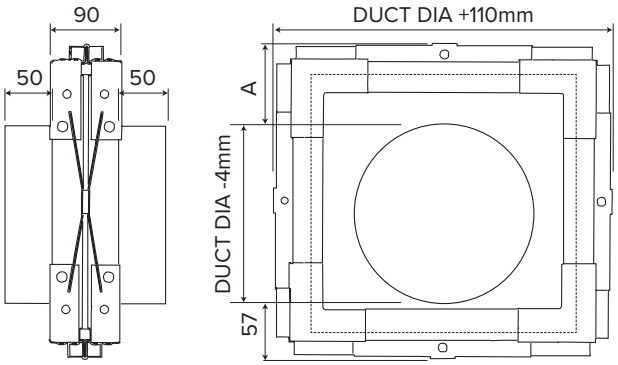
ADVANCED AIR
FIRE DAMPER

Spigot option – HEVAC

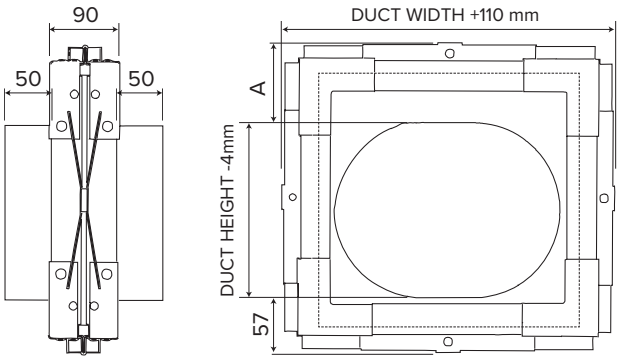
0160 HEVAC – rectangular



0160 HEVAC – circular



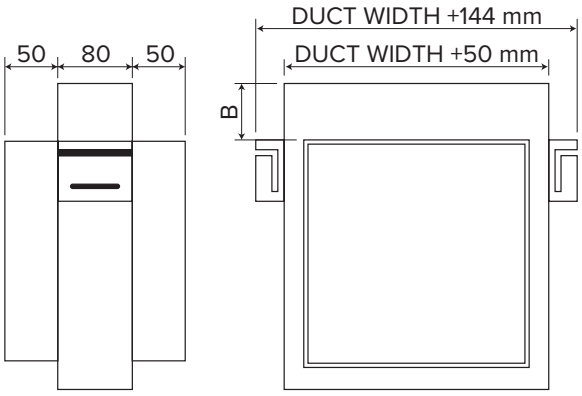
0160 HEVAC – oval



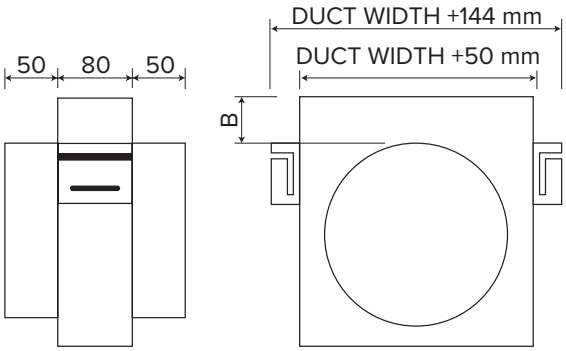
Duct height	A	Structural opening height: Opening minimum	Structural opening height: Opening maximum
100mm	55mm	Duct +160mm	Duct +185mm
101 to 300mm	80mm	Duct +185mm	Duct +210mm
301 to 525mm	105mm	Duct +210mm	Duct +235mm
526 to 700mm	130mm	Duct +235mm	Duct +260mm
701 to 925mm	155mm	Duct +260mm	Duct +285mm
926 to 1,000mm	180mm	Duct +285mm	Duct +310mm

Spigot option – AFS

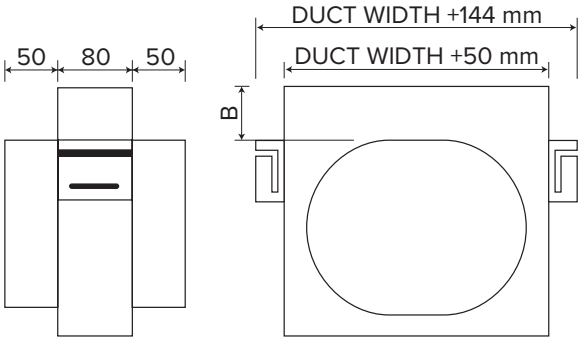
0160 AFS – rectangular



0160 AFS – circular



0160 AFS – oval



Duct height	B	Structural opening height: Opening minimum	Structural opening height: Opening maximum
100mm	25mm	Duct +100mm	Duct +350mm
101 to 300mm	50mm	Duct +125mm	Duct +375mm
301 to 525mm	75mm	Duct +150mm	Duct +400mm
526 to 700mm	100mm	Duct +175mm	Duct +425mm
701 to 925mm	125mm	Duct +200mm	Duct +450mm
926 to 1,000mm	150mm	Duct +225mm	Duct +475mm

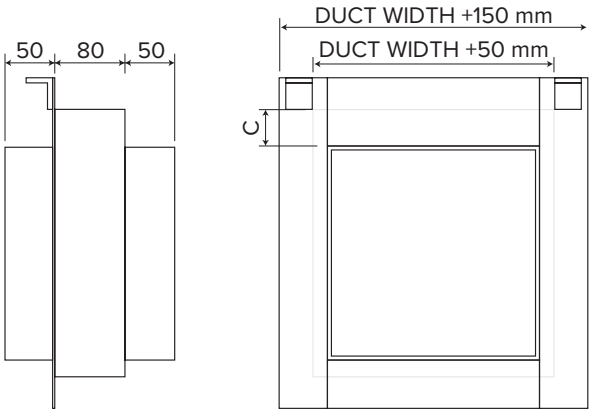
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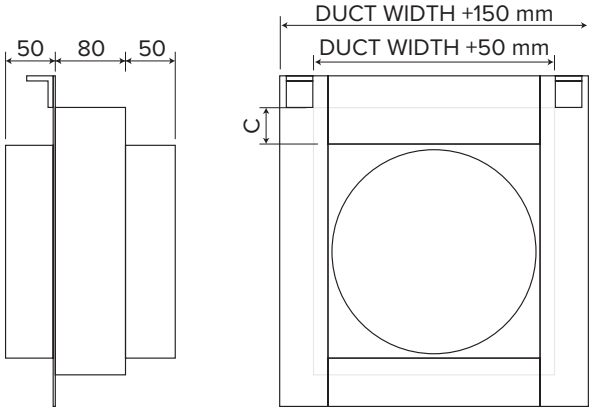
ADVANCED AIR
FIRE DAMPER

Spigot option – Drywall plate

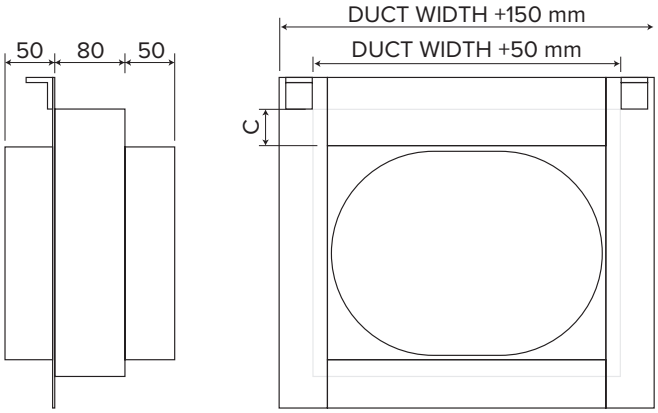
0160 drywall plate – rectangular



0160 drywall plate – circular



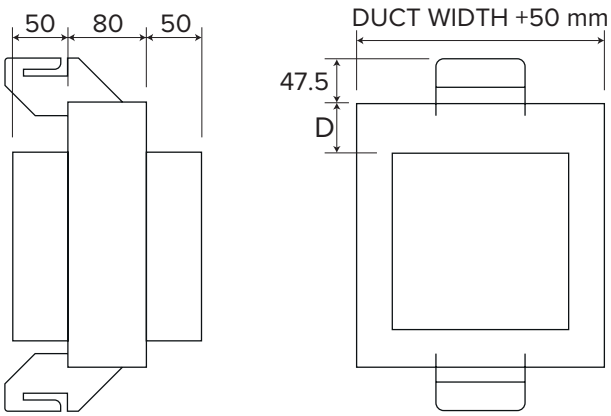
0160 drywall plate – oval



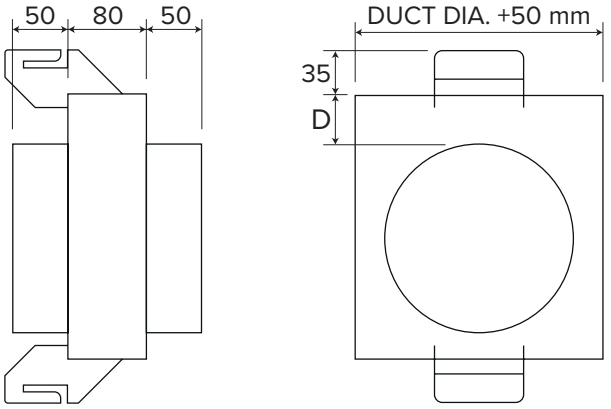
Duct height	C	Structural opening height Opening minimum
100mm	25mm	Duct +90mm
101 to 300mm	50mm	Duct +115mm
301 to 525mm	75mm	Duct +140mm
526 to 700mm	100mm	Duct +165mm
701 to 925mm	125mm	Duct +190mm
926 to 1,000mm	150mm	Duct +215mm

Spigot option – AFS floor

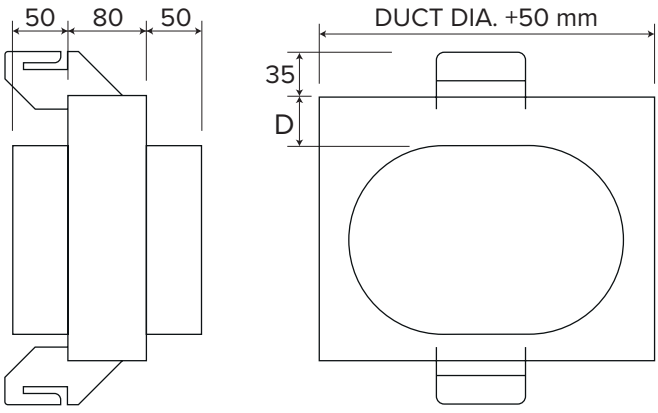
0160 AFS floor – rectangular



0160 AFS floor – circular



0160 AFS floor – oval



Duct height	D	Structural opening height Opening minimum	Opening maximum
100mm	25mm	Duct +140mm	Duct +350mm
101 to 300mm	50mm	Duct +165mm	Duct +375mm
301 to 525mm	75mm	Duct +190mm	Duct +400mm
526 to 700mm	100mm	Duct +215mm	Duct +425mm
701 to 925mm	125mm	Duct +240mm	Duct +450mm
926 to 1,000mm	150mm	Duct +265mm	Duct +475mm

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