CAST IRON AIR BRICK COMPANY

Building Architectural Enhancements

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Specification Sheet – ciabCON2-2019

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100mm, 125mm and 150mm CONSERVATION VENT

ITEM NoS… CON4, CON5 and CON6



Cast iron conservation vents are made from grey iron, cast in sand moulds bonded with resin to a fine cast finish and are available in one size with two different diameter spigots at the back 100mm dia (4” item CON4) and 125mm dia (5” CON5) and also a the new heavy duty 150mm dia (6” CON6) .

Problem Solver

Period properties have period vents and when these require replacement it’s easy to replace like for like with a brand new reproduction like one of our Y pattern cast iron air bricks or one of the grid patterns.

The aim of ventilation at the turn of the century was to allow the wind to do all the work and have air flow naturally through a building to prevent damp and mould and allow for room ventilation. In

the 21st century, these period properties have evolved and instead of having Victorians and Edwardians living in them they've now got 21st century folk living in them and working in them. Instead of a dairy, wash houses, outside toilet and wash basins they've now got ensuite shower and wc, a main bathroom, a cloakroom, a tumble dryer and hob extractors. Instead of allowing air to flow naturally into the house we extract the air out of the house, mechanically, using electric motors and these terminate on the outside walls of the property and create a problem.

The problem being of course is that all the original vents look original and all the 21st century vents look , well …21st century. That's not a good look and we know what a pain it was for architects, interior designers, kitchen installers and conservation officers because way back in 2010 they told us. We would receive so many emails with images of plastic terracotta Screwfix cowls bolted onto the side of listed buildings installed in the 80s and repaired with silicon sealant that we felt we had to do something. You said you wanted a cowl because the motors don't want to fight when it's windy to extract the air and you didn't want your clients hearing a flap in the ductwork everytime the extractor came on or there was a breeze. It was a cowl that was needed but it needed to look as if it was original to the house, the sort of grille that the Victorians would have had if they'd invented the tumble dryer. A grille that looked a little like an upside down rain hopper perhaps? So we set to work and created our very first cast iron grille pattern in wood and commissioned a micro foundry in Bristol to cast four so we could show them at the homeshow at the NEC in Birmingham. The feedback was amazing and sure enough a few months later we started to see the conservation vent appearing on tenders and in plans for renovations and conversions and we now sell around 1000 a year, it's our biggest seller.

Construction

The conservation vent is made from fine cast grey iron. The cowl deflects the extracted air downwards and is screwed into the wall through the 5mm diameter countersunk screw holes in the lugs on each corner (6mm in the CON6) . The spigot at the back is designed to fit into a core drilled hole.

Uses

Mainly used as an exterior vent to extract damp and moist air from inside a building. Hob extractors, kitchen extractors, cloakrooms, wc, bathrooms, ensuites and tumble dryer outlets are the main uses. As the name suggests it does suit period properties although it's quite a statement piece even on contemporary buildings but it has been used on a significant number of listed buildings and properties in conservation areas. It may need listed buildings consent to install it but, so far, we haven't heard of any conservation officer that has refused its introduction. The conservation vent has been instrumental in improving extractor efficiency as installers have told us they've been able to extract close to where the fan is positioned whereas in the past they've ducted metres and metres of flexi pipe to terminate on a back wall to appease the authorities.

It can also be used as an interior vent to allow air in for combustion especially with regards to stoves. It's elegant dome and undisputed Victorian charm are most at home in the kitchen providing 7200mm2 of free area for combustion air to oil fired Agas or background kitchen ventilation to enhance the look even with electric ovens.

Buildings predominantly installing these grilles are large buildings for restoration and conversion to apartments, care homes, manor houses and also farm houses.

The larger 6" CON6 is ideally suited for larger properties and industrial conversions and commercial outlets where a larger air flow is required. We have three installed at our own farm house (17th century) on the tumble dryer outlet, kitchen extractor and at the end of drain water outlet. Here are a few examples of notable buildings:- Glasgow University, Godinton House Kent, Causeway Weymouth, Castle Gayer Cornwall and Roger Needham Building Cambridge University.

Finish

We supply them either bare metal or primed red oxide for clients and contractors to paint on site or painted black. We can supply bespoke RAL painted to match customers' existing brickwork or requirements. Please note that items painted in such a way are nonreturnable, there is an additional charge for this and it will add 1-2 weeks onto the delivery time.

Environmental Benefits and Longevity

All the cast iron air bricks we commission are UK made and this product is made in Oxford, England.

Cast iron is not affected by UV and is fire resistant and fully recyclable. The cast iron used in the manufacture of this product is sourced from scrap iron with the addition of a small amount of pig iron. On average, 95% of the casting is recycled material. The moulds used to create the castings are generated using sand that is packed in a box with one of our patterns and this sand is used again and again to create further castings.

Casting in the UK has ensured all our products are made to strict emission and pollution levels in accordance with the latest legislation and that the workers creating these products are fairly paid and have a safe working environment in which to earn a living.

Melting iron requires a substantial amount of energy from either gas or electricity and to offset the CO2 emissions from this process we have planted over 300 trees in our own 3 acre wood. The annual absorption of CO2 from our wood is enough to ensure the production of our castings is carbon neutral.

As we don't import any of our products, the mileage from foundry to our finishing workshop and distribution bay in North Devon is very low keeping our carbon footprint small and once installed we expect this air brick to last a life time.

Maintenance

Bare cast iron will rust but this rust forms a protective layer to prevent further corrosion and requires no further maintenance, it is ideal for installation in red brick properties but may stain light coloured brickwork or light coloured rendered properties.

Painted vents use three part epoxy primer followed by two part epoxy black gloss top coat which is extremely hard wearing and is unlikely to require repainting within a decade unless the paint is

chipped or the air brick exposed to salt. The gloss paint will dull over time, in exposed conditions it is likely to dull to a satin sheen in a year or two.

Notes for architects

Stunning, cast iron, authentic, vent for period properties requiring sympathetic, extractor outlets with the benefit of back draught prevention from a cowled front.

These grilles should be used along with the appropriate 4, 5and 6 inch diameter core drilled holes when attaching to exterior walls.

Conservation vents can be used in conjunction with a number of additions such as mesh, flaps and ducting. We can supply flexible ducting which can be cut to short lengths for attaching the male end of the flap to engage on the male spigot. The flexi ducting is a tight fit on the spigot and may not need clips to secure it. We supply round mesh cut larger than the spigot so it can be wrapped around the back of the spigot a trapped. The mesh is removable for cleaning by unscrewing the grille and should be inspected regularly and cleaned either by blowing air or vacuuming if the debris is non greasy or can be dissolved in a degreaser such as acetone and drying before reinstallation. If mesh is used it should be noted that this will prevent the flap opening if the flap is placed directly next to it.

We do not supply screws but, as the unit is very heavy we suggest installers use screws with sufficient length to ensure the grille is firmly secured to the wall. This is especially important for the CON6 if it is installed at head height. As with all installation of mesh used in ventilation grilles, specifiers should be aware of the latest Gas Safe and HETAS regulations regarding solid fuel, oil and gas appliances.






SPECIFICATION TABLE – COWLED CONSERVATION VENT							
Item Code	Nom. Size (Inch) Spigot dia	Size in mm Spigot dia	Vent Size (mm)	Weight (KG)	Free Area (mm2)	Free Area with mesh (mm)	Plate thickness (mm)
CON4	4	100	-	2.5	7200	4750	8
CON5	5	125	-	2.6	8000	5280	8
CON6	6	148	-	5	11,100	7325	8
(Full dimensional table is at the end of this document) Material – Grey cast iron 250							

British Made Product

Cast iron foundry source – Oxford, England









For more details please see our website…

https://www.castironairbricks.co.uk/product-category/period-vent-grilles/

Alternatively email or call us

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Delivery for this product is normally from stock for low volume orders and these are sent out the next working day for orders received before 12 oclock. Ideally we hold 50 units bare metal and 10 units primed red oxide and painted black of each size although this is a guide and can quickly change. If we need to prime more red this will add a couple of days to delivery, paint more black this will be 5- 7 days longer and bespoke painted fronts (customer supplied RAL) are typically 10-14 days

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Conservation Vent Dimensions in mm				
		CON4	**CON5**	**CON6**
A	Max Width (at Base)	183	183	235
B	Vent Height	135	135	165
C	Width at Top	155	155	195
D	Hole distance between centres	160	160	208
E	Hole distance between centres	117	117	165
F	Hole distance between centres	130	130	173
Y	Vent Protrusion	78	78	92
Z	Spigot Length	24	24	35
	Drilled Securing Hole Diameters	5	5	6
	External Spigot Dia	104	124	148
	Internal Spigot Dia	92	110	134

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