



CAST IRON AIR BRICK COMPANY

Building Architectural Enhancements

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Specification Sheet – ciabRO1-2018

www.castironairbricks.co.uk

Round Slotted Grilles

ITEM - RO3 – RO35 – RO4 – RO45 – RO5 – RO6

RO7 – RO8 – RO9 – RO12



Cast iron round slotted grilles are made from grey iron, cast in sand moulds bonded with resin to a fine cast finish and are available in ten diameters ranging from 3" to 12" (see table below for metric mm sizes).

Uses

Supplying natural ventilation to interior rooms and also as an extractor outlet vent grille over or in core drilled duct holes from room, hob, kitchen and bathroom extractors.

Examples

These grilles are used across a wide range of period properties across the country and also overseas. Drilled they are often used as vent grilles, whilst undrilled grilles are used to replace missing or damaged drainage gratings. A large number find their way into country estates and farms. One of the farms that might be especially familiar to many is “Emmerdale Farm”, the fictional TV soap on ITV whose cobbled streets are now drained using one of our 12” cast iron slotted grilles. Overseas sales have seen numerous grilles heading to Ireland and the USA including one particular house restoration at Blossomfort House near Cork, Ireland which used a pair of our smallest RO3 grilles.

Larger properties, especially Georgian and Victorian manor houses had numerous round grilles fitted when they were built and we see a number of like for like replacements.

Culham Court, a fabulous grade 2 star listed property near Henley received some painstaking restoration work by contractors Symm in 2013 warranting installation of round grilles to ventilate the chapel.

Finish

We are able to supply this grille painted black as standard. There are no bare metal options as the foundry prime our grilles before dispatch to prevent them rusting in storage. We can however supply bespoke RAL painted air bricks 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.

Grilles can be supplied drilled to allow for securing screws (not supplied) if required or left undrilled.

Environmental Benefits and Longevity

All the cast iron round vents we commission are UK made and this product is made in Wolverhampton, England and also Edinburgh Scotland where we use two foundries..

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

These painted grilles are going to last several years before they need repainting. Clients might decide not to repaint them and let them “naturally rust” as this rust forms a protective layer to prevent further corrosion and requires no further maintenance, this would be an acceptable solution for installation in red brick properties but may stain light coloured brickwork or light coloured rendered properties where repainting black is recommended. We paint using 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 grille 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

Round grilles as drainage gratings are fairly straight forward and there is often no requirement for securing holes as gravity normally keeps them in place. No mesh is required for grilles used as drains as they will quickly block with debris and render the grille useless to drain away the water.

There are a number of issues concerning using round grilles as vents and in particular securing arrangements. Round grilles have the option of drilled or undrilled on the website from 6” (150mm) diameter and above but there is no option for drilled on grilles 5” (125mm) or below. It is of course possible for us to supply smaller round grilles drilled but they will need to be ordered off line using a proforma. This is to reduce the chance of customers purchasing small drilled grilles that are too small to be secured into the wall when used with core drilled holes. Unlike square grilles, that have four corners, some distance away from the circumference of the bore hole, the round grilles, and any securing holes drilled in them, are close to the edge of the bore hole. Careful thought therefore needs to be given when specifying small round grilles as to the diameter of the hole they are covering. Typical distances of drilled securing holes in our cast iron round grilles from the circumference of potential bore holes is as follows...

Bore Diameter in Wall	Cast Iron Round Grille Item No	Distance securing holes are from edge of Bore Hole
100mm	150mm RO6	10mm
100mm	175mm RO7	23mm
100mm	200mm RO8	30mm
125mm	175mm RO7	10mm
125mm	200mm RO8	20mm
125mm	225mm RO9	30mm
150mm	225mm RO9	17mm

From the table above it can be seen that a much larger round grille is required to cover a core drilled hole. An RO6 (150mm diameter) isn't large enough for a 100mm bore hole as the securing holes will be too close whereas a 150x150mm square grille (SLOT6 or HER6) is a much better option as the securing holes will be a very useful 43mm from the edge of bore hole.

We can supply circles of cut copper fly mesh for all the round grilles that are used as vents, this will reduce the free area by 1/3rd.

Item Code	Nom. Size (Inch)	Diameter in mm	Slot Size (mm)	Weight (KG)	Free Area with mesh (mm ²)	Plate Thickness (inches)
RO3	3	75	9	0.2	1200	3/8
RO35	3.5	88	12	0.4	1700	1/2
RO4	4	100	12	0.3	2500	3/8
RO45	4.5	115	14	0.4	3500	3/8
RO5	5	125	12	0.5	4000	3/8
RO6	6	150	12	0.75	6500	3/8
RO7	7	178	12	1.0	9000	3/8
RO8	8	205	13	1.5	12000	3/8
RO9	9	225	13	2.0	14000	1/2
RO12	12	305	15	6.0	25000	5/8



For more details please see our website...

<https://www.castironairbricks.co.uk/product/round-slotted-vent-grilles/>

Alternatively email or call us

Sales@castironairbricks.co.uk

01598 711999

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 o'clock. Ideally we hold 20 units of each size under 9" unfinished and 10 units painted black and about half as many of the 9 and 12 inch. If we need to paint more black this will be 5- 7 days longer, bespoke painted fronts (customer supplied RAL) are typically 10-14 days

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