



Section 73 Planning Statement [PRODUCT AND DATA SHEET FOR PROPOSED MATERIALS]
Property: 175A Commercial Street (Unit 3, Westgate Building), Newport NP20 1JN
Planning Reference: 22/0794
Application Type: Section 73 TCPA 1990 Discharge of Conditions 05,06 & 07



CAST IRON AIR BRICK COMPANY

Building Architectural Enhancements

Specification Sheet - Ciab9x6-2025

riba
product
selector

www.castironairbricks.co.uk

Double Brick Size Cast Iron Air Brick

Item GRID6 - VV6 - L6 - HM6 - FLY6 - MAX6 - WIN6 - Y6



Cast iron air bricks are made from grey iron, cast in sand moulds bonded with resin to a fine cast finish. They are available in numerous sizes and are grouped according to the number of bricks they replace ie, single, double and triple and 12x6 inch. Here we look at the eight different types of double air bricks we have in the range and the photo above is an example from top to bottom of ... Victorian vertical slotted air brick (VV6), maximum air (MAX6) and grid pattern (GRID6)

Uses

Mainly used as exterior air bricks , the double air brick is predominantly used to supply room ventilation especially for combustion of solid fuel appliances and to reduce condensation. The air bricks are mortared into the walls in the place of two bricks and designed to sit flush with the surrounding brick work.

Examples

The MAX6 is one of our most efficient cast iron air bricks and allows a huge 18,000mm² of aspiration through its square holes and has been used on the conversion of Hampstead Manor by developers Mount Anvil and Nash's house in Stratford upon Avon.

One of the simplest and our earliest design is the grid pattern air brick (item GRID6). It was a design typically used during Georgian and Victorian period and it's no surprise that we've supplied many properties across the country including the Horniman Museum in Forest Hill London, Barratt London for their Blackfriars Rd development and Historic Scotland for renovations in Edinburgh.

Finish

The double sized cast iron air bricks can be either bare metal or painted black. We can 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.

Environmental Benefits and Longevity

All the cast iron air bricks we commission are UK made and every product in this size, with the exception of the WIN6 is made in West Midlands, England. The WIN6 is made in Sheffield, 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 Devon is very low keeping our carbon footprint small and once installed we expect this air brick to last a life time.

Maintenance

The bare cast iron air bricks will rust but this rust forms a protective layer to prevent further corrosion and requires no further maintenance. Bare metal air bricks are ideal for installation in red brick properties but may stain light coloured brickwork or light coloured rendered properties. Painted vents use two part epoxy black gloss top coat which is hard wearing but is just a decorative finish, like all painted cast iron products it will require repainting from time to time, especially if situated on an exposed wall. Repainting can be frequent if the grille is positioned in the sunlight, or chipped or exposed to salt air. The gloss paint will dull over time, in exposed conditions it is likely to dull to a satin sheen fairly quickly. Regardless of the paint finish the cast iron grille will last for many decades with or without painting.

Notes for architects

The VV6 is the front part of the hit and miss air brick. It is often seen in Victorian properties and requested as a like for like replacement by clients and conservation officers who are perhaps unaware of how it originally worked. The items we sell are newly cast and still have the telltale hole for the slider in the centre of the vent giving a clue to its past history.

The louvre L6, hit and miss HM6, flyscreen FLY6 and metric Windsor WIN6 air bricks all have individual specification sheets that can be used as well as this sheet.

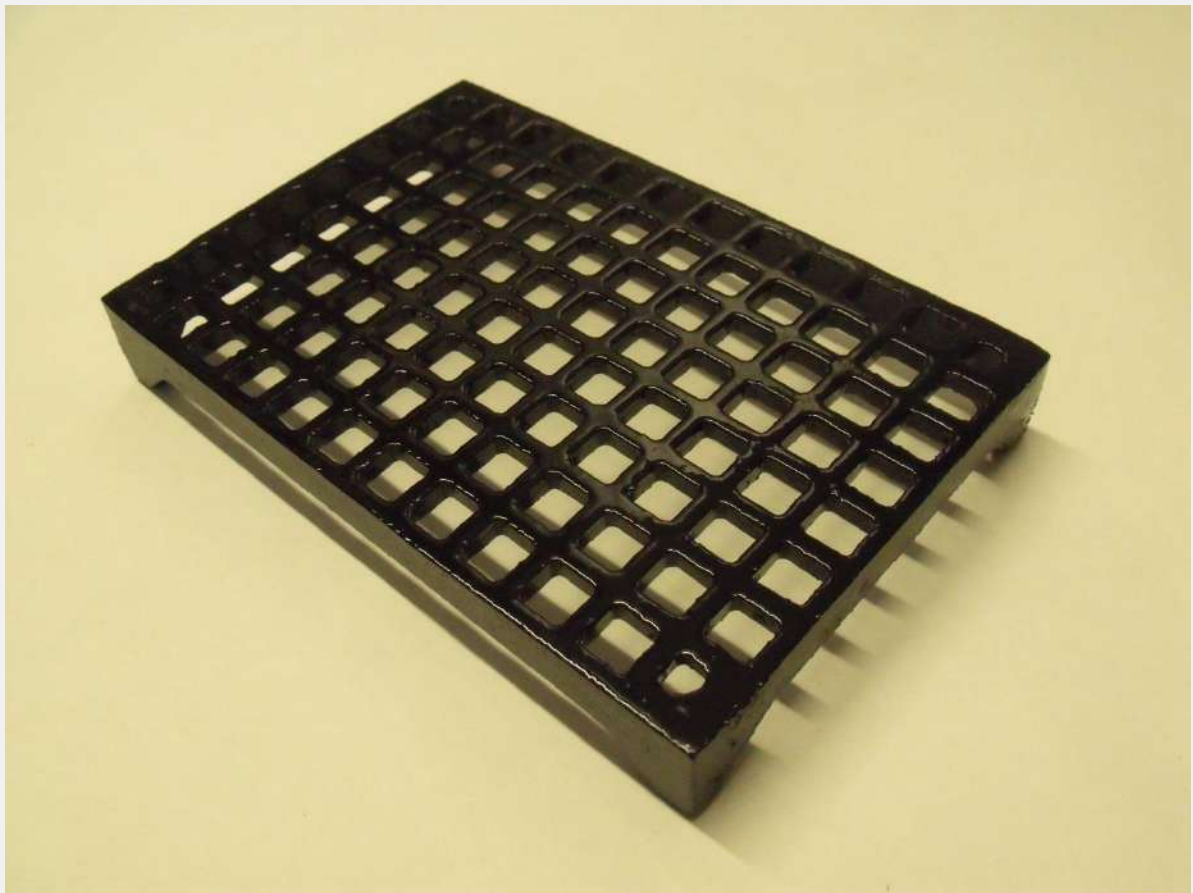
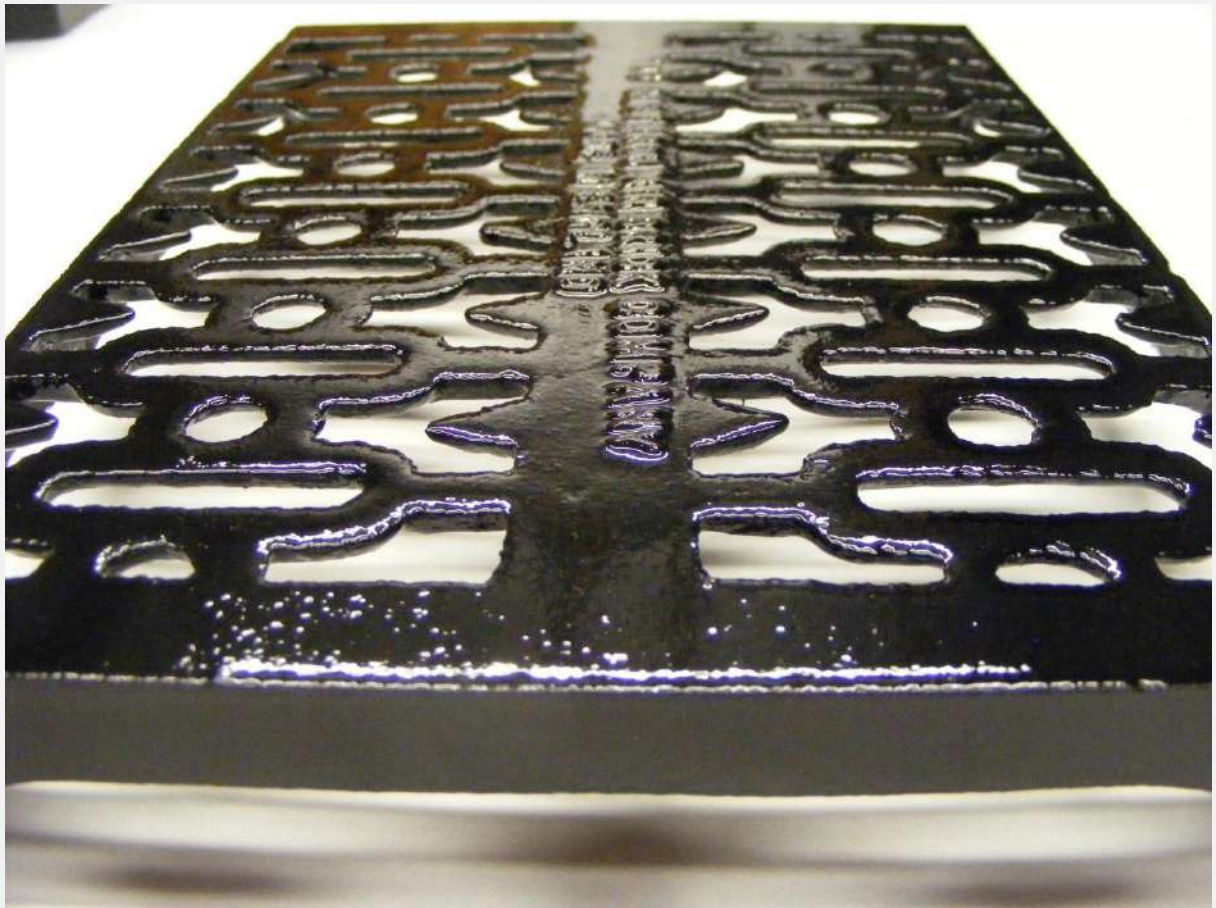
SPECIFICATION TABLE – DOUBLE SIZE AIRBRICKS

Item Code	Nom. Size (Inch)	Size in mm	Vent Size (mm)	Weight (KG)	Free Area (mm2)	Plate Thickness (mm)	Depth (mm)
WIN 6	8.5 x 5.2	213 x 132	10x40x2	2	9000	6	50
GRID6	9 x 6	228 x 153	9 x 9	1	8,500	4	25
MAX6	9 x 6	228 x 152	14 x 11	1.2	18,000	6	30
HM6 VV6	9 x 6	225 x 150	8 x 125	1.6	10,500	4	35
L6	9 x 6	222 x 150	8	1.2	8500	5	42
Y6	9 x 6	226 x 152	-	1	11,000	4	30
FLY6	9 x 6	228 x 151	16 x 16	2.4	8500 (with mesh)	7	50

Material – Grey cast iron 250

British Made Product

Cast iron foundry source – West Midlands, England



For more details please see our website...

<https://www.castironairbricks.co.uk/product-category/cast-iron-air-bricks/airbrick-9x6inch/>

Alternatively email or call us

Sales@castironairbricks.co.uk

01598 711999

Delivery for this product is normally from stock for low volume orders Ideally we hold 30 units bare metal and 10 units painted black of each design although this is a guide and can quickly change. If we need to paint more black this will be 5- 7 days longer, bespoke painted fronts (customer supplied RAL) are typically 3-4 weeks

Cast Iron Air Brick Company, Bowhill Farm, Bradninch Exeter, EX5 4LH



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Hargreaves Premier LCC Soil is a traditional socket and spigot pipe system with fittings for above ground soil and waste. Most products are ex stock but other items are available as bespoke.

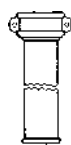
Traditional LCC Soil (BS 416) is coated in a Bitumen paint and is not available in other colours/finishes.

BS 416 PREMIER LCC SOIL



SOIL PIPES & FITTINGS

66-69



EARED PIPES						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
1829mm [6FT] Eared	S2001E £137.00	S2501E £147.45	S3001E £147.45	S3501E £184.76	S4001E £184.76	S6001E £373.97
1219mm [4FT] Eared	S2004E £128.56	S2504E £140.35	S3004E £140.35	S3504E £172.59	S4004E £172.59	S6004E £332.79
914mm [3FT] Eared	S2003E £111.01	S2503E £119.41	S3003E £119.41	S3503E £149.36	S4003E £149.36	S6003E £310.57
610mm [2FT] Eared	S2002E £111.01	S2502E £119.41	S3002E £119.41	S3502E £149.36	S4002E £149.36	S6002E £310.57
1829mm [6FT] Double Socket Eared	S2001DE £181.62	S2501DE £189.40	S3001DE £189.40	S3501DE £247.29	S4001DE £247.29	S6001DE £509.12
PLAIN PIPES						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
1829mm [6FT] Plain	S2001 £129.70	S2501 £139.49	S3001 £139.49	S3501 £176.79	S4001 £176.79	S6001 £339.69
1219mm [4FT] Plain	S2004 £107.12	S2504 £114.35	S3004 £114.35	S3504 £141.53	S4004 £141.53	S6004 £296.27
914mm [3FT] Plain	S2003 £86.01	S2503 £91.69	S3003 £91.69	S3503 £113.29	S4003 £113.29	S6003 £267.94
610mm [2FT] Plain	S2002 £86.01	S2502 £91.69	S3002 £91.69	S3502 £113.29	S4002 £113.29	S6002 £267.94
1829mm [6FT] Double Socket Plain	S2001D £179.88	S2501D £185.35	S3001D £185.35	S3501D £220.72	S4001D £220.72	S6001D £441.01
ACCESS PIPE						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
Oval Door	S2010 £136.47	S2510 £136.47	S3010 £136.47	S3510 £148.93	S4010 £148.93	S6010 £241.66
BENDS						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
92.5°	S2020 £64.82	S2520 £78.45	S3020 £78.45	S3520 £96.34	S4020 £96.34	S6020 £161.03
112.5°	S2021 £64.82	S2521 £78.45	S3021 £78.45	S3521 £96.34	S4021 £96.34	S6021 £161.03
135°	S2022 £64.82	S2522 £78.45	S3022 £78.45	S3522 £96.34	S4022 £96.34	S6022 £161.03
with Door 92.5°	S2020D £160.52	S2520D £174.03	S3020D £174.03	S3520D £197.79	S4020D £197.79	S6020D £263.50
with Door 112.5°	S2021D £160.52	S2521D £174.03	S3021D £174.03	S3521D £197.79	S4021D £197.79	S6021D £263.50
with Door 135°	S2022D £160.52	S2522D £174.03	S3022D £174.03	S3522D £197.79	S4022D £197.79	S6022D £263.50
EXPANDING PIECES						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
75mm x 50mm [3" x 2"] Spigot Large End			S3052 £82.20			
100mm x 50mm [4" x 2"] Spigot Large End					S4052 £114.74	
100mm x 75mm [4" x 3"] Spigot Large End					S4053 £114.74	
150mm x 100mm [6" x 4"] Spigot Large End						S6052 £234.67
DIMINISHING PIECES						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
75mm x 65mm [3" x 2.5"] Spigot Small End			S3054 £114.74			
90mm x 65mm [3.5" x 2.5"] Spigot Small End				S3554 £141.46		
100mm x 90mm [4" x 3.5"] Spigot Small End					S4054 £141.46	

Ears can be fitted to any item on request – POA.

LOOSE SOCKETS

Premier [BS416]

Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
Eared	S2050E £40.78	S2550E £43.03	S3050E £43.03	S3550E £48.45	S4050E £48.45	S6050E £91.30
Plain	S2050 £36.35	S2550 £38.36	S3050 £38.36	S3550 £40.57	S4050 £40.57	S6050 £55.29

OFFSETS

Premier [BS416]

Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
75mm [3"] Projection	S2040 £86.26	S2540 £91.00	S3040 £91.00	S3540 £133.06	S4040 £133.06	S6040 £234.22
115mm [4.5"] Projection	S2041 £86.26	S2541 £91.00	S3041 £91.00	S3541 £133.06	S4041 £133.06	S6041 £234.22
150mm [6"] Projection	S2042 £86.26	S2542 £91.00	S3042 £91.00	S3542 £133.06	S4042 £133.06	S6042 £234.22
230mm [9"] Projection	S2043 £99.13	S2543 £104.58	S3043 £104.58	S3543 £147.64	S4043 £147.64	S6043 £267.60
305mm [12"] Projection	S2044 £111.00	S2544 £117.11	S3044 £117.11	S3544 £165.38	S4044 £165.38	S6044 £301.18
380mm [15"] Projection	S2045 £149.98	S2545 £158.23	S3045 £158.23	S3545 £240.79	S4045 £240.79	S6045 £381.93
457mm [18"] Projection	S2046 £179.74	S2546 £189.64	S3046 £189.64	S3546 £278.73	S4046 £278.73	S6046 £394.38
533mm [21"] Projection	S2047 £209.55	S2547 £221.07	S3047 £221.07	S3547 £334.49	S4047 £334.49	S6047 £407.43
610mm [24"] Projection	S2048 £231.29	S2548 £244.01	S3048 £244.01	S3548 £369.16	S4048 £369.16	S6048 £476.46

EQUAL BRANCHES

Premier [BS416]

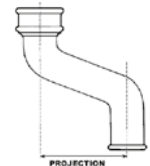
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
92.5°	S2030 £96.96	S2530 £105.09	S3030 £105.09	S3530 £154.70	S4030 £163.20	S6030 £267.31
112.5°	S2031 £96.96	S2531 £105.09	S3031 £105.09	S3531 £154.70	S4031 £163.20	S6031 £267.31
135°	S2032 £96.96	S2532 £105.09	S3032 £105.09	S3532 £154.70	S4032 £163.20	S6032 £267.31
92.5° with Door	S2030D £189.20	S2530D £197.35	S3030D £197.35	S3530D £233.71	S4030D £246.56	S6030D £362.93
112.5° with Door	S2031D £189.20	S2531D £197.35	S3031D £197.35	S3531D £233.71	S4031D £246.56	S6031D £362.93
135° with Door	S2032D £189.20	S2532D £197.35	S3032D £197.35	S3532D £233.71	S4032D £246.56	S6032D £362.93
92.5° Double	S2056 £198.67	S2556 £209.59	S3056 £209.59	S3556 £259.92	S4056 £274.23	S6056 £462.36
112.5° Double	S2056B £198.67	S2556B £209.59	S3056B £209.59	S3556B £259.92	S4056B £274.23	S6056B £462.36
135° Double	S2056C £198.67	S2556C £209.59	S3056C £209.59	S3556C £259.92	S4056C £274.23	S6056C £462.36

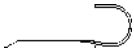
UNEQUAL BRANCHES

Premier [BS416]

Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
Unequal Available in 92.5°, 112.5°, or 135°		£89.07	£89.07	£126.76	£126.76	£126.76
Unequal with Door Available in 92.5°, 112.5°, or 135°		£167.24	£167.24	£208.96	£208.96	£307.57
Double Unequal Available in 92.5°, 112.5°, or 135°		£177.62	£177.62	£220.27	£232.40	£391.83

Due to the many possibilities in the Unequal Branches, please contact HF sales office for ordering codes. Ears can be fitted to any item on request – POA.
Please check code for specific unequal branch.





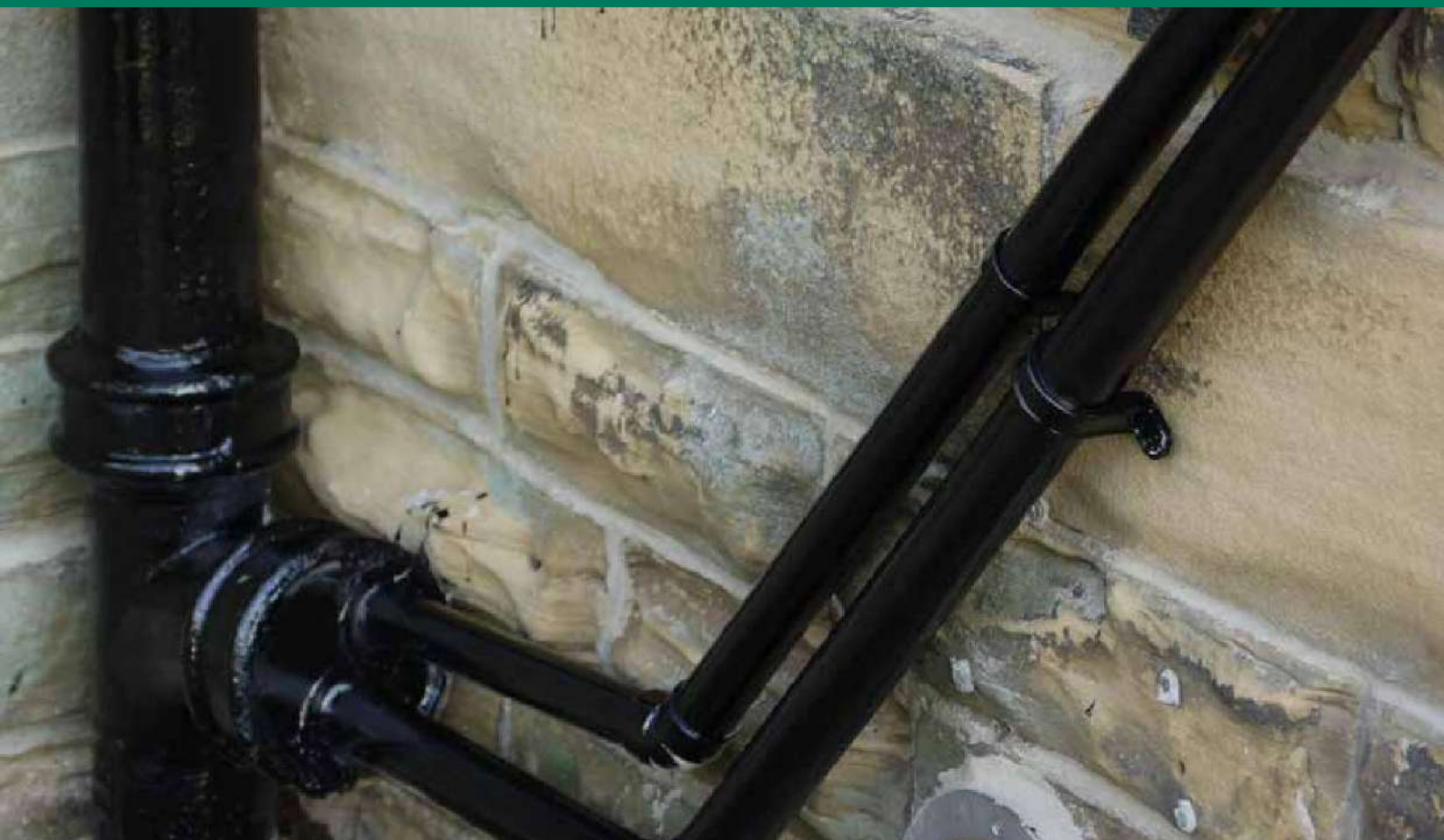
P TRAP						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
P Trap			S3096 £124.66	S3596 £151.36	S4096 £151.36	S6096 £355.90
SHOES						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
Eared	S2051E £81.24	S2551E £85.71	S3051E £85.71	S3551E £112.20	S4051E £112.20	S6051E £229.35
Plain	S2051 £73.58	S2551 £77.61	S3051 £77.61	S3551 £104.62	S4051 £104.62	S6051 £193.25
HOLDFAST						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
Holdfast	S2058 £8.50	S2558 £9.06	S3058 £9.06	S3558 £11.61	S4058 £11.61	S6058 £23.82
HOLDERBATS						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
Screw to Wall [Hinged]	S2060 £53.04	S2560 £55.96	S3060 £55.96	S3560 £62.52	S4060 £62.52	S6060 £145.78
Steel Screw to Wall [Bolted]	S2064 £50.85	S2564 £55.96	S3064 £55.96	S3564 £62.52	S4064 £58.42	S6064 £145.78
Build-In	S2061 £45.34	S2561 £47.85	S3061 £47.85	S3561 £52.79	S4061 £52.79	
BOSSED PIPES						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
610mm [24"] Overall: 1.25"	S2081 £185.08				S4081 £203.15	
610mm [24"] Overall: 1.5"			S3082 £189.65		S4082 £203.15	
610mm [24"] Overall: 2"	S2083 £185.08		S3083 £189.65		S4083 £203.15	
Extra Boss					S4084 £53.44	
STRAP ON BOSS						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
2" Bspt					S4092 £98.04	
BLANK END						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
Blank End	S2070 £30.00	S2570 £31.67	S3070 £31.67	S3570 £39.73	S4070 £39.73	S6070 £79.46
SOCKET REDUCERS						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
75mm x 50mm [3" x 2"]			S3086 £30.37			
100mm x 50mm [4" x 2"]					S4086 £39.73	
100mm x 75mm [4" x 3"]					S4087 £39.73	
EARS						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
Loose Ears	S2065 £31.52	S2565 £33.24	S3065 £33.26	S3565 £38.05	S4065 £38.05	S6065 £49.03

Ears can be fitted to any item on request – POA.

ORNAMENTAL EARBANDS						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
Ornamental Type A	S20620A £123.17	S25620A £129.95	S30620A £129.95	S35620A £135.20	S40620A £135.20	S60620A
Ornamental Type B	S20620B £123.17	S25620B £129.95	S30620B £129.95	S35620B £135.20	S40620B £135.20	S60620B £168.55
Ornamental Type C	S20620C £123.17	S25620C £129.95	S30620C £129.95	S35620C £135.20	S40620C £135.20	S60620C £168.55
Ornamental Type D	S20620D £123.17	S25620D £129.95	S30620D £129.95	S35620D £135.20	S40620D £135.20	S60620D £168.55
Ornamental Type E	S20620E £123.17	S25620E £129.95	S30620E £129.95	S35620E £135.20	S40620E £135.20	S60620E £168.55
Ornamental Type F	S20620F £123.17	S25620F £129.95	S30620F £129.95	S35620F £135.20	S40620F £135.20	S60620F £168.55
Ornamental Type G	S20620G £123.17	S25620G £129.95	S30620G £129.95	S35620G £135.20	S40620G £135.20	S60620G £168.55
Ornamental Type J	S20620J £123.17	S25620J £129.95	S30620J £129.95	S35620J £135.20	S40620J £135.20	S60620J £168.55
Ornamental Type K	S20620K £123.17	S25620K £129.95	S30620K £129.95	S35620K £135.20	S40620K £135.20	S60620K £168.55

To fit pipe socket



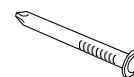


LCC SOIL SUNDRIES



LOOSE DOOR & GASKET						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
Loose Door	S2069	S2569	S3069	S3569	S4069	S6069
	£22.44	£24.00	£24.00	£26.14	£26.14	£40.94
Rubber Gasket	S2069G	S2569G	S3069G	S3569G	S4069G	S6069G
	£6.98	£9.81	£9.81	£13.69	£13.69	£24.75
COWL						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
100mm [4"] To Fit Pipe Barrel					S4055 £77.00	
WIRE BALLOON						
Premier [BS416]						
Description	50mm [2"]	65mm [2.5"]	75mm [3"]	90mm [3.5"]	100mm [4"]	150mm [6"]
Wire Balloon	S2080 £14.80	S2580 £15.63	S3080 £15.63	S3580 £16.65	S4080 £16.65	S6080 £34.99
WOODEN BOBBIN						
Description						
30mm Projection	R0001 £2.63					
PIPE NAILS						
Description						
75mm [3"] to Suit all Pipe Sizes	R0003 £0.89					
100mm [4"] to Suit all Pipe Sizes	R0004 £0.98					
SET SCREWS						
Description						
Per Pair [To Fit Loose Door]	S0002 £3.69					
CAULKING CORD						
Description						
Per Metre – [Approximately 4m required for 4" Joint]	S0006 £0.46					
JOINT SEALANT						
Description						
290ml Cartridge [Black] [1 required for approximately 4 Joints]	S0007 £25.93					

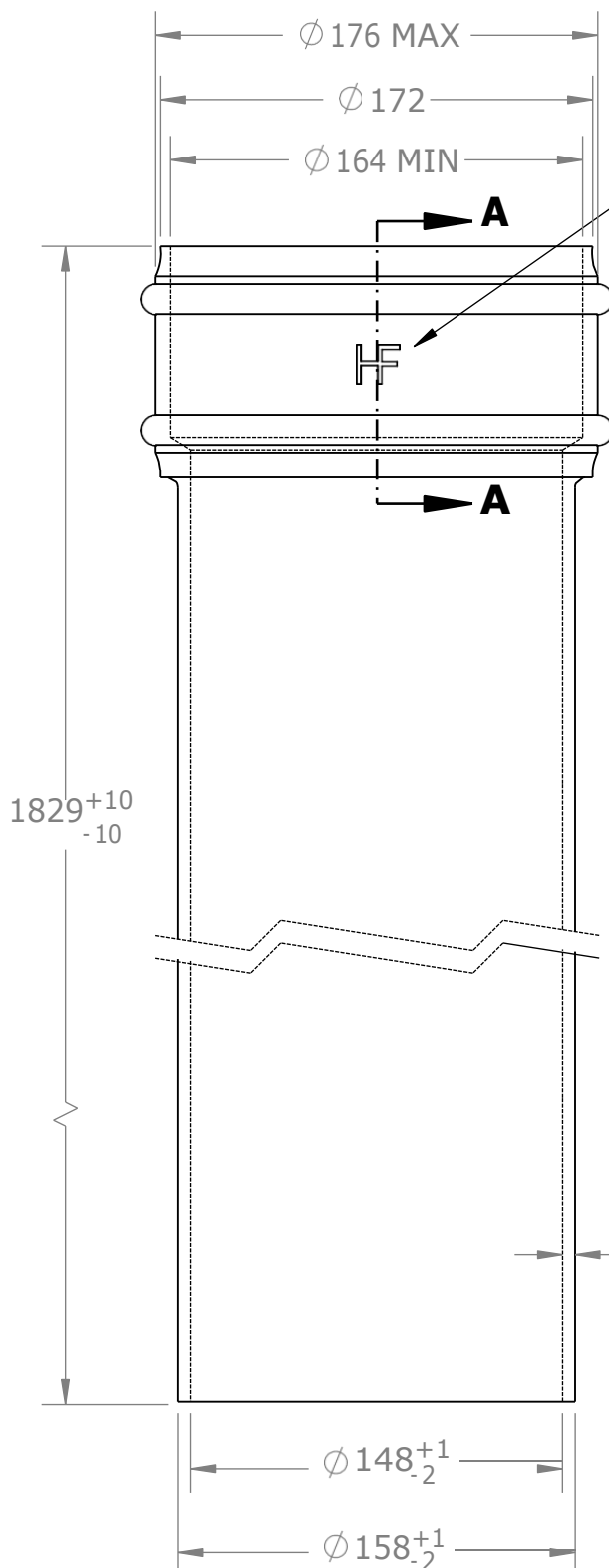
Installation instructions available on request.



UNCONTROLLED

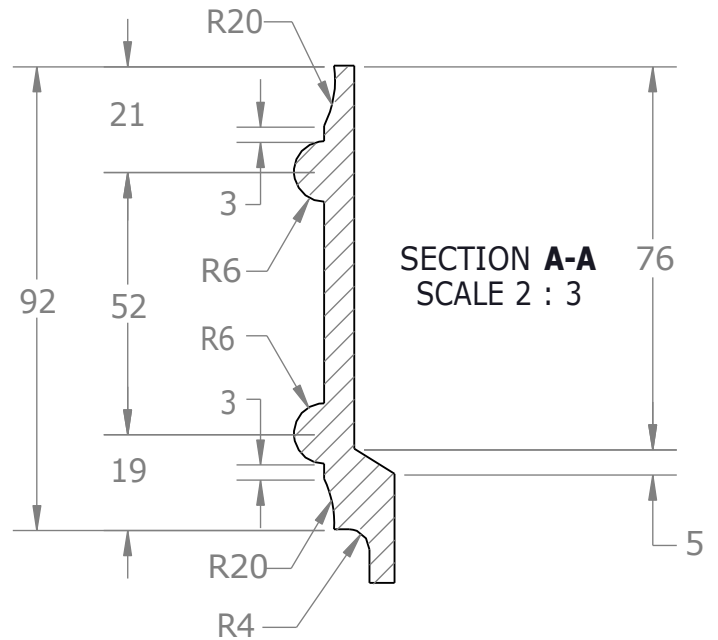
COPY

VIEW FROM FRONT

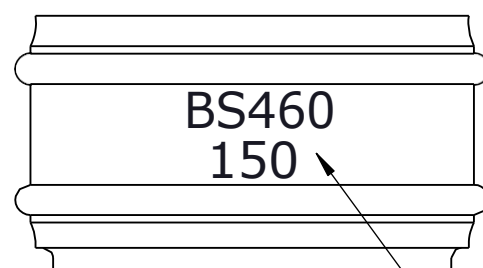


HF LOGO 15MM HIGH
X 1.5MM RAISED

SCALE 1:6



SOCKET VIEW FROM REAR



MARKINGS 10MM HIGH
X 1.5MM RAISED

ALL DIMS IN mm

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WATER LANE
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HALIFAX
WEST YORKSHIRE
HX3 9HG

TEL: (44) 01422 330607
FAX: (44) 01422 320349

E-MAIL info@hargreavesfoundry.co.uk



TITLE
150mm Plain Round R/w Pipe 6ft

MATERIAL
BSEN 1561 Grade:EN-GJL-150

SCALE
1:3 A4

DRAWN
S Clarke

CHECKED
P Gill

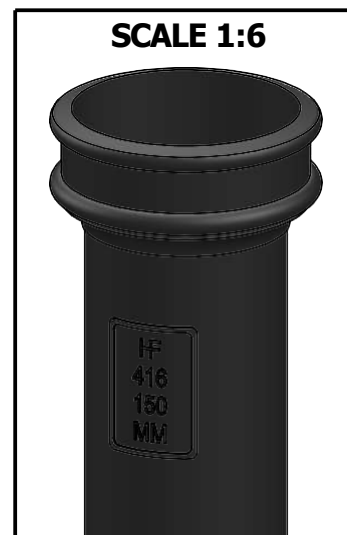
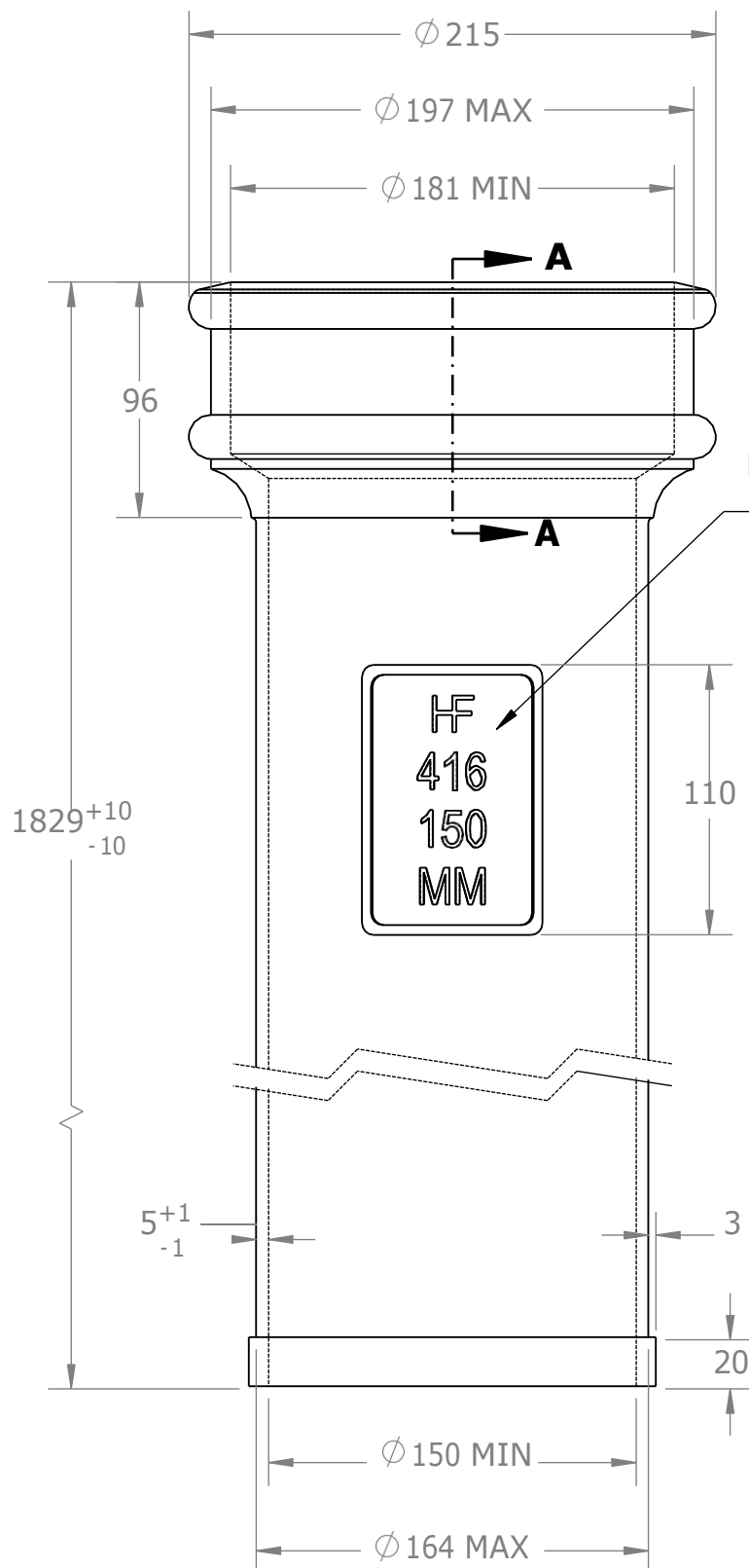
DATE
17/09/24

REF No
-

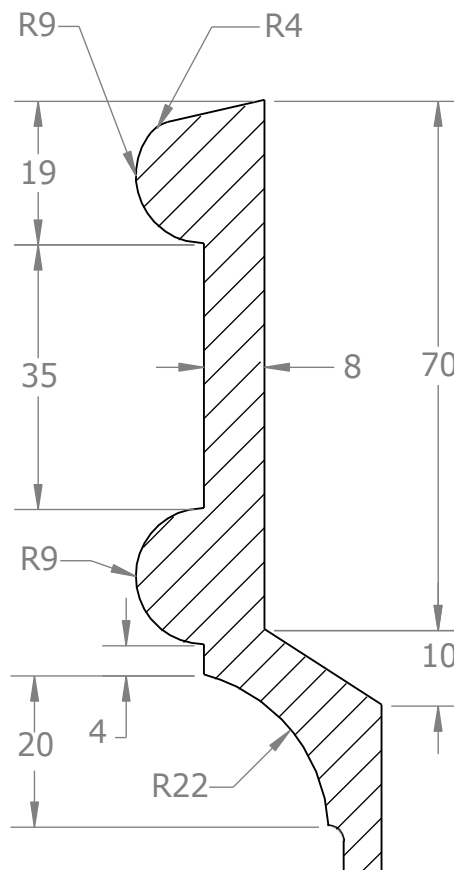
REV.
0

DWG No
R6001

UNCONTROLLED COPY



MARKINGS 15MM HIGH
X 1.5MM RAISED
BORDER 4MM HIGH
X 1.5MM RAISED



SECTION A-A
SCALE 1 : 1

ALL DIMS IN mm

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TEL: (44) 01422 330607
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TITLE
150mm LCC Soil Pipe 6ft

MATERIAL
BSEN 1561 Grade:EN-GJL-150

SCALE
1:3 A4

DRAWN
S Clarke

CHECKED
P Gill

DATE
27/09/24

REF No
-

REV.
0

DWG No
S6001

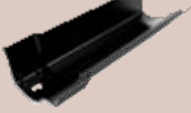
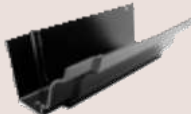


ALUTEC
RAINWATER SYSTEMS

Product guide



Product Selector

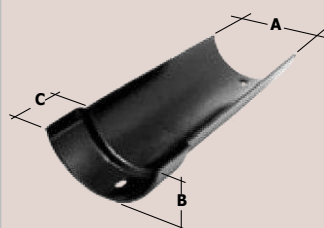
Profile	Size	Compatible downpipes	Maximum flow rate ³	Maximum roof area (per downpipe) ³
Half Round	100mm	63mm Ø	See page 24 for complete flow rate performance	See page 24 for maximum roof area
	113mm	76mm Ø		
	125mm	102mm Ø ¹		
		72x72mm		
		102x76mm ¹		
 Victorian Ogee	100mm	63mm Ø	See page 24 for complete flow rate performance	See page 24 for maximum roof area
	113mm	76mm Ø		
	125mm	72x72mm		
		102x76mm ¹		
 Moulded Ogee	100x75mm	63mm Ø	See page 24 for complete flow rate performance	See page 24 for maximum roof area
	125x100mm	76mm Ø		
	150x100mm	102mm Ø		
		72x72mm		
		102x102mm ²		
		102x76mm		

1: Only compatible with 125mm 2: Only compatible with 125x100mm and 150x100mm

3: Please refer to page 24 for more information or contact Marley Alutec Technical Services department for a full roof drainage design.

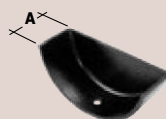
Traditional Half Round

Compatible with Tudor circular, Traditional circular, square and rectangular downpipes (pages 15 – 18)



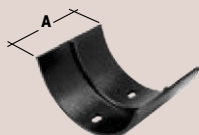
Gutter

Code	Size	Nominal Length(m)	A	B	C
GC 406	100	1.83	105	46	45
GC 106	113	1.83	119	51	45
GC 506	125	1.83	131	56	45



Stop end

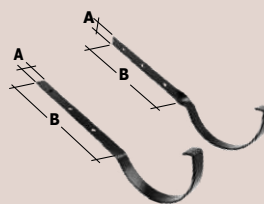
Code	Size		A
GC 450	100	Internal	45
GC 455	100	External	45
GC 150	113	Internal	45
GC 155	113	External	52
GC 550	125	Internal	52
GC 555	125	External	50



Union

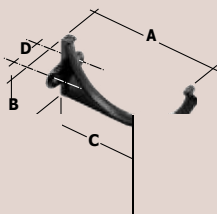
Code	Size	A
GC 420	100	95
GC 120	113	95
GC 520	125	95

External



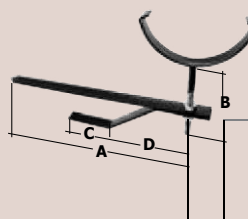
Fixed rafter arm

Code	Size		A	B
AC 71	100	Side	20	240
AC 72	113	Side	20	240
AC 73	125	Side	20	240
AC 74	100	Top	20	240
AC 75	113	Top	20	240
AC 76	125	Top	20	240



Fascia bracket

Code	Size	A	B	C	D
GC 480	100	112	62	59	38
GC 180	113	126	68	66	38
GC 580	125	139	74	72	38



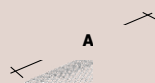
Rise & fall bracket

Code	Size	A	B	C	D
AC 91	100	360	125	80	168
AC 92	113	360	125	80	168
AC 93	125	360	125	80	168



Angle

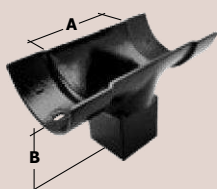
Code	Size	Angle	A
GC 432	100	90°	124
GC 437	100	135°	59
GC 439	100	Non standard	
GC 132	113	90°	137
GC 137	113	135°	63
GC 139	113	Non standard	
GC 532	125	90°	139
GC 537	125	135°	55
GC 539	125	Non standard	



Leafguard

Code	Size	A
SL 71	100	1220
SL 72	113	1220
SL 73	125	1220

Mill Finish



Outlet

Code	Size	Outlet Size	A	B	Fascia to Outlet Centre
GC 422	100	63ø	134	80	61
GC 423	100	76ø	134	42	61
GC 425	100	72x72	134	88	61
GC 122	113	63ø	132	83	67
GC 123	113	76ø	132	47	67
GC 125	113	72x72	132	91	67
GC 522	125	63ø	133	98	73
GC 523	125	76ø	133	68	73
GC 524	125	102ø	133	36	73
GC 525	125	72x72	133	103	73
GC 526	125	102x76	133	103	73



Installation sundries

Roundhead fascia bracket screw

Code	Description
SC201	No. 10 x 30mm – Mill Finish

Aluminium nuts, bolts and washers
For joining gutters & fittings

Code	Description
SC501	M6 x 20mm aluminium bolt PPC - Pack 25
SC531	M6 Aluminium nut & washer set - pack 100

Sealant

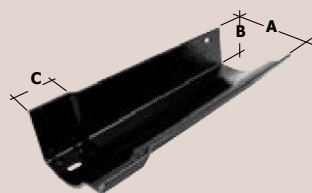
Code	Description
SC101	310ml clear

Refer to sealant usage table, page 27.
Please note sealant shelf life is 12 months.



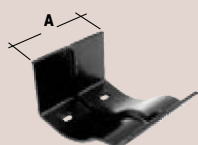
Traditional Victorian Ogee

Compatible with Tudor circular, Traditional circular, square and rectangular downpipes (pages 15 – 18)



Gutter

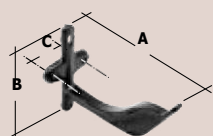
Code	Size	Nominal Length(m)	A	B	C
GV406	100	1.83	109	54	45
GV106	113	1.83	121	61	45
GV506	125	1.83	134	68	45



Union

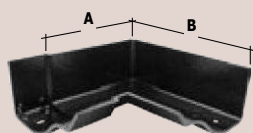
Code	Size	A
GV420	100	96
GV120	113	96
GV520	125	96

External



Fascia bracket

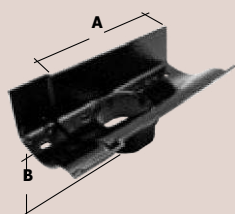
Code	Size	A	B	C
GV480	100	115	97	38
GV180	113	130	97	38
GV580	125	150	105	45



Angle

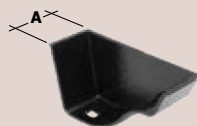
Code	Size	Angle	A	B
GV430	100	90° in.	125	176
GV431	100	90° ex.	68	16
GV435	100	135° in.	75	16
GV436	100	135° ex.	60	114
GV439	100	Non standard	—	—
GV130	113	90° in.	134	186
GV131	113	90° ex.	63	14
GV135	113	135° in.	124	67
GV136	113	135° ex.	70	23
GV139	113	Non standard	—	—
GV530	125	90° in.	152	212
GV531	125	90° ex.	77	18
GV535	125	135° in.	69	125
GV536	125	135° ex.	64	22
GV539	125	Non standard	—	—

Internal angle illustrated



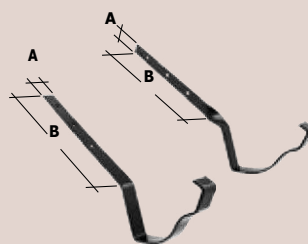
Outlet

Code	Size	Outlet	outlet centre			
			A	Dr/fix	Brkt/fix	B
GV422	100	63ø	195	54	63	27
GV423	100	76ø	195	54	63	27
GV425	100	72x72	195	54	63	58
GV122	113	63ø	187	54	63	68
GV123	113	76ø	187	54	63	68
GV125	113	72x72	187	54	63	31
GV522	125	63ø	190	54	63	27
GV523	125	76ø	190	54	63	27
GV525	125	72x72	190	54	63	68
GV526	125	102x76	190	54	63	68



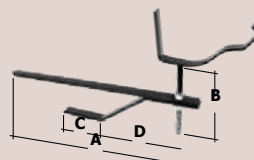
Stop end

Code	Size		A
GV450	100	In. left hand	47
GV455	100	Ex. right hand	47
GV150	113	In. left hand	45
GV155	113	Ex. right hand	45
GV550	125	In. left hand	45
GV555	125	Ex. right hand	45



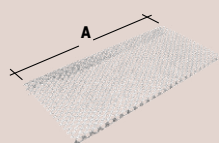
Fixed rafter arm

Code	Size		A	B
AV71	100	Side	20	240
AV72	113	Side	20	240
AV73	125	Side	20	240
AV74	100	Top	20	240
AV75	113	Top	20	240
AV76	125	Top	20	240



Rise & fall bracket

Code	Size	A	B	C	D
AV91	100	360	125	80	168
AV92	113	360	125	80	168
AV93	125	360	125	80	168



Leafguard

Code	Size	A
SL111	100	1220
SL113	113	1220
SL125	125	1220

Mill Finish



Installation sundries

Compatible fixing screws

Code	Description
SC201	No. 10 x 30mm - for fascia bracket
SC231	No. 12 x 50mm - for gutter direct fixing

Aluminium nuts, bolts and washers
For jointing gutters & fittings

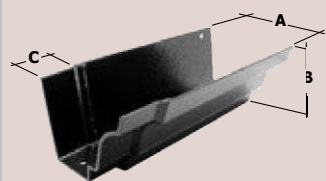
Code	Description
SC501	M6 x 20mm aluminium bolt PPC - Pack 25
SC531	M6 Aluminium nut & washer set - pack 100

Sealant

Code	Description
SC101	310ml clear

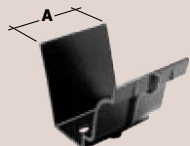
Refer to sealant usage table, page 27.
Please note sealant shelf life is 12 months.





Gutter

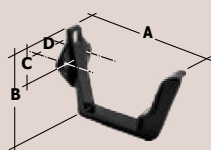
Code	Size	Nominal Length(m)	A	B	C
GM406	100	1.83	107	76	60
GM506	125	1.83	139	102	40
GM606	150	1.83	161	102	51



Union

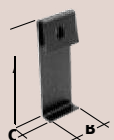
Code	Size	A
GM420	100	92
GM520	125	85
GM620	150	90

Internal



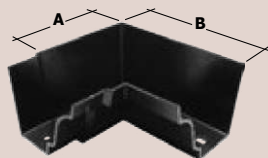
Fascia bracket

Code	Size	A	B	C	D
GM480	100	117	99	30	38
GM580	125	137	115	38	36
GM680	150	155	121	38	38



Direct fix bracket

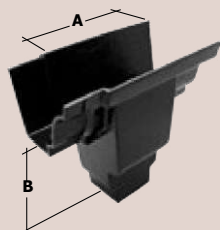
Code	Size	A	B	C
GM481	100	69	24	9
GM581	125	70	35	11
GM681	150	92	35	12



Angle

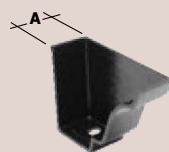
Code	Size	Angle	A	B
GM430	100	90° in.	127	183
GM431	100	90° ex.	75	19
GM435	100	135° in.	60	119
GM436	100	135° ex.	75	18
GM439	100	Non standard	—	—
GM530	125	90° in.	160	205
GM531	125	90° ex.	68	23
GM535	125	135° in.	80	135
GM536	125	135° ex.	85	27
GM539	125	Non standard	—	—
GM630	150	90° in.	183	235
GM631	150	90° ex.	77	24
GM635	150	135° in.	88	140
GM636	150	135° ex.	75	24
GM639	150	Non standard	—	—

Internal angle illustrated
in. internal ex. external



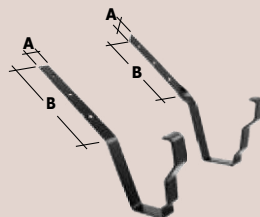
Outlet

Code	Size	Outlet	A	B	Fascia to Outlet Centre
GM422	100	63ø	192	50	50
GM423	100	76ø	192	50	64
GM425	100	72x72	192	58	41
GM426	100	102x76	192	58	41
GM522	125	63ø	190	57	55
GM523	125	76ø	190	57	55
GM524	125	102ø	190	57	72
GM525	125	72x72	190	125	65
GM526	125	102x76	190	125	65
GM527	125	102x102	190	56	72
GM622	150	63ø	190	58	52
GM623	150	76ø	190	58	67
GM624	150	102ø	190	58	87
GM625	150	72x72	190	58	42
GM626	150	102x76	190	58	46
GM627	150	102x102	190	58	46



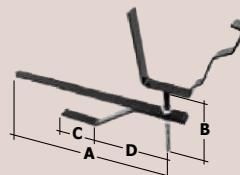
Stop end

Code	Size		A
GM450	100	Ex. left handed	47
GM455	100	In. right handed	47
GM550	125	Ex. left handed	46
GM555	125	In. right handed	46
GM650	150	In. left handed	47
GM655	150	Ex. right handed	47



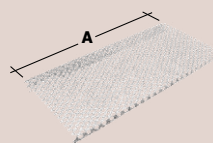
Fixed rafter arm

Code	Size		A	B
AM71	100x75	Side	20	240
AM73	125x100	Side	20	240
AM75	150x100	Side	20	240
AM74	100x75	Top	20	240
AM76	125x100	Top	20	240
AM77	150x100	Top	20	240



Rise & fall bracket

Code	Size	A	B	C	D
AM91	100	360	125	80	168
AM93	125	360	125	80	168
AM94	150	360	125	80	168



Leafguard

Code	Size	A
SL114	100x75	1220
SL115	125x100	1220
SL116	150x100	1220

Mill Finish



Installation sundries

Compatible fixing screws

Code	Description
SC201	No. 10 x 30mm - for fascia bracket
SC231	No. 12 x 50mm - for gutter direct fixing

Aluminium nuts, bolts and washers
For jointing gutters & fittings

Code	Description
SC501	M6 x 20mm aluminium bolt PPC - Pack 25
SC531	M6 Aluminium nut & washer set - pack 100

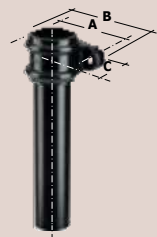
Sealant

Code	Description
SC101	310ml clear

Refer to sealant usage table, page 2/.
Please note sealant shelf life is 12 months.

Tudor circular downpipe

Compatible with Traditional Half Round, Victorian Ogee and Moulded Ogee (pages 11 – 14)



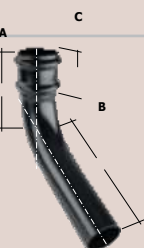
Downpipe

Code	Size	Nominal Length(m)	A	B	C
TR206	63	1.83	110	145	45
TR212	63	2	110	145	45
TR213	63	3	110	145	45
TR306	76	1.83	115	160	52
TR312	76	2	115	160	52
TR313	76	3	115	160	52
TR406	102	1.83	141	186	65
TR412	102	2	141	186	65
TR413	102	3	141	186	65



Pipe socket

Code	Size	A	B	
TR220	63	75	30	eared
TR220NE	63	75	30	non eared
TR320	76	81	30	eared
TR320NE	76	81	30	non eared
TR420	102	94	30	eared
TR420NE	102	94	30	non eared



Bend

Code	Size	Angle	A	B	C
TR232	63	92.5°	150	240	70
TR232	63	112.5°	190	230	70
TR330	76	92.5°	180	250	70
TR332	76	112.5°	220	250	70
TR430	102	92.5°	290	325	94
TR432	102	112.5°	230	270	94

Branch

Code	Size	Angle	A	B	C
TR240	63	92.5°	215	115	110
TR242	63	112.5°	215	115	110
TR340	76	92.5°	250	138	112
TR342	76	112.5°	250	119	130
TR440	102	92.5°	260	150	110
TR442	102	112.5°	260	130	130

Shoe

Code	Size	Angle	A	B
TR250	63	112.5°	85	90
TR350	76	112.5°	103	106
TR450	102	112.5°	125	131

Access pipe

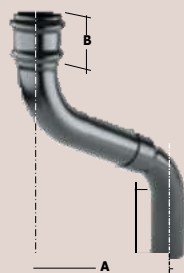
Code	Size	A	B	C
TR260	63	300	140	105
TR360	76	300	140	105
TR460	102	300	140	105

Pipe clip

Code	Size	A	B	C
TR280	63	105	80	45
TR380	76	118	93	52
TR480	102	138	113	65

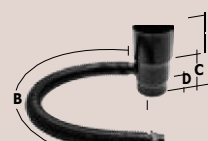
Fixed offset

Code	Size	A	B	C	D
TR2903	63	75	70	370	100
TR2904	63	100	70	355	100
TR2906	63	150	70	400	100
TR2909	63	225	70	400	100
TR2912	63	300	70	445	100
TR3903	76	75	70	380	130
TR3904	76	100	70	380	130
TR3906	76	150	70	400	130
TR3909	76	225	70	425	130
TR3912	76	300	70	435	130
TR4903	102	75	94	512	150
TR4904	102	100	94	516	150
TR4906	102	150	94	566	150
TR4909	102	225	94	616	150
TR4912	102	300	94	656	150



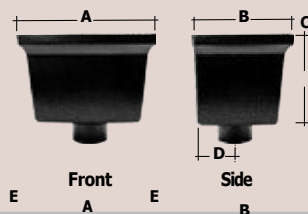
Adjustable offset

Code	Size	Angle	A _{min}	A _{max}	B	C
TR2945	63	112.5°	150	450	70	100
TR2990	63	112.5°	150	900	70	100
TR3945	76	112.5°	200	450	70	163
TR3990	76	112.5°	200	900	70	163
TR4945	102	112.5°	280	450	94	150
TR4990	102	112.5°	280	900	94	150



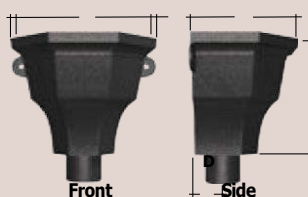
Rainwater diverter

Code	Size	A	B	C	D
TRD25	63	134	500	74	30
TRD35	76	134	500	74	30



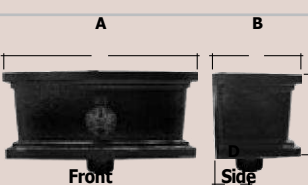
Hopper head (Standard)

Code	Size	A	B	C	D
TH101	63	250	180	180	45
TH102	76	250	180	180	52
TH103	102	250	180	180	65



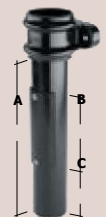
Hopper head (Fluted)

Code	Size	A	B	C	D	E
TH401	63	285	210	225	45	18
TH402	76	285	210	225	52	18



Hopper head (Ornamental)

Code	Size	A	B	C	D
TH301	63	410	190	185	45
TH302	76	410	190	185	52
TH303	102	410	190	185	65



Compatible fixings

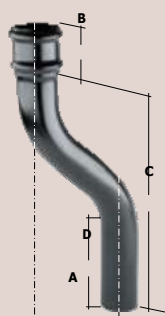
Code	Description
SC208	No. 12 x 70mm hexagonal - for downpipe & hopper
SC209	No. 12 x 100mm hexagonal - for wall spacer



Sealant

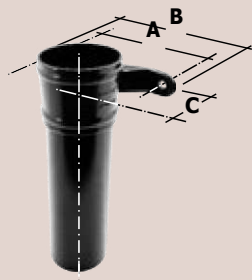
Code	Description
SC101	310ml clear

Please note sealant shelf life is 12 months.



Wall spacer

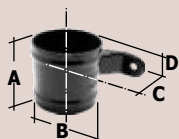
Code	Description
SC712	30mm Per 2



Downpipe

Code	Size	Nominal Length(m)	A	B	C
RR211	63	1	110	143	59
RR212	63	2	110	143	59
RR213	63	3	110	143	59
RR311	76	1	109	160	70
RR312	76	2	109	160	70
RR313	76	3	109	160	70
RR411	102	1	153	185	91
RR412	102	2	153	185	91
RR413	102	3	153	185	91

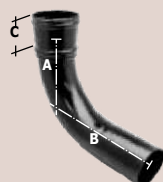
Add suffix 'N.E.' for non-eared pipes



Pipe socket

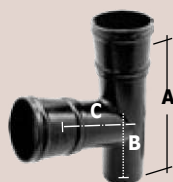
Code	Size	A	B	C	D
RR220	63	74	72	59	37
RR320	76	83	85	70	37
RR420	102	99	110	91	48

Add suffix 'N.E.' for non-eared socket



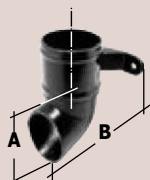
Bend

Code	Size	Angle	A	B	C	Socket Depth
RR230	63	92.5°	105	200	37	
RR232	63	112.5°	100	220	37	
RR235	63	135°	100	210	37	
RR330	76	92.5°	110	220	42	
RR332	76	112.5°	110	230	42	
RR335	76	135°	90	245	42	
RR430	102	92.5°	50	170	80	
RR432	102	112.5°	50	235	80	
RR435	102	135°	50	290	80	



Branch

Code	Size	Angle	A	B	C
RR240	63	92.5°	210	112	112
RR242	63	112.5°	210	90	140
RR245	63	135°	210	70	160
RR340	76	92.5°	250	138	112
RR342	76	112.5°	250	119	130
RR345	76	135°	250	65	180
RR440	102	92.5°	310	174	121
RR442	102	112.5°	310	150	150
RR445	102	135°	310	105	195



Shoe

Code	Size	Angle	A	B
RR250	63	112.5°	95	100
RR350	76	112.5°	103	124
RR450	102	112.5°	125	140

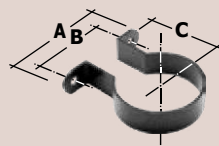
Add suffix 'N.E.' for non-eared shoe



Access pipe

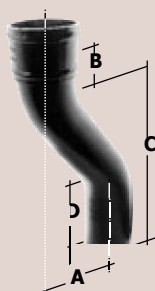
Code	Size	A	B	C
RR260	63	300	140	105
RR360	76	300	140	105
RR460	102	300	140	105

Add suffix 'N.E.' for non-eared access pipe



Pipe clip

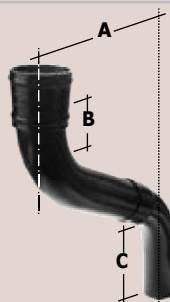
Code	Size	A	B	C
RR280	63	100	75	59
RR380	76	98	72	70
RR480	102	130	104	91



Fixed offset

Code	Size	Angle	A	B	C	D
RR2903	63	154°	75	65	300	160
RR2904	63	149°	100	45	330	120
RR2906	63	140°	150	60	360	120
RR2909	63	126°	225	50	345	85
RR2912	63	120°	300	35	365	90
RR3903	76	154°	75	55	345	115
RR3904	76	149°	100	55	365	115
RR3906	76	140°	150	55	395	115
RR3909	76	126°	225	45	410	115
RR3912	76	120°	300	45	420	110
RR4903	102	112.5°	100	15	255	64
RR4904	102	112.5°	100	15	265	64
RR4906	102	112.5°	150	15	280	64
RR4909	102	112.5°	225	15	305	64
RR4912	102	112.5°	300	15	330	64

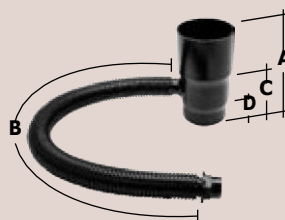
Other projection offsets available on request



Adjustable offset

Code	Size	Angle	A min	A max	B	C
RR2945	63	112.5°	150	450	50	90
RR2990	63	112.5°	150	900	50	90
RR3945	76	112.5°	200	450	48	163
RR3990	76	112.5°	200	900	48	163
RR4945	102	112.5°	110	450	15	64
RR4990	102	112.5°	110	900	15	64

Other projection offsets available on request



Rainwater diverter

Code	Size	A	B	C	D
RRD25	63	150	500	79	25
RRD35	76	150	500	79	25



Installation sundries

Compatible fixings

Code	Description
SC208	No. 12 x 70mm hexagonal - (for use with downpipe and hopper)
SC209	No. 12 x 100mm hexagonal - (for use with cast spacer bobbin)

Pipe socket filler

Code	Description
SC911	10m roll foam (for use with traditional circular sockets)

Sealant

Code	Description
SC101	310ml clear

Refer to sealant usage table, page 27.
Please note sealant shelf life is 12 months.



RW Slabs

(RWA45, RW3, RW4, RW5 & RW6)

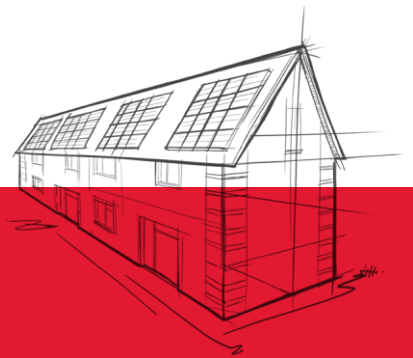
Versatile insulation slabs for a wide range of building applications

ROCKWOOL RW Slabs can be applied to an array of general building applications for acoustic, thermal and fire protection of walls, ceilings, floors and roofs.

Available in range of thicknesses and densities from 45 to 140 kg/m³, the slabs can also be black or white tissue faced, or foil faced, to one or both sides (subject to production compatibility).

- Designed to provide multiple thermal and acoustic solutions
- Suitable for a wide range of general building applications
- Non-combustible – Euroclass A1 classification as defined in EN 13501-1
- Availability in a range of thicknesses and densities
- Black or white tissue, and aluminium foil facings available on request*

*Subject to production compatibility and minimum order quantity.



ROCKWOOL RW semi-rigid and rigid slabs are high quality resin bonded stone wool slabs that can be used in general building applications.

ROCKWOOL stone wool insulation is sound absorbing by nature, and can be used to significantly reduce the noise transmission into a building and between the indoor spaces.

RW Slabs



Figure 1 - ROCKWOOL RWA45

APPLICATIONS

ROCKWOOL RW Slabs can be used for a wide range of applications for partitions and ceilings, as well as thermal insulation for floors, walls, and roof.

RW Slabs

PERFORMANCE

Thermal performance

ROCKWOOL RW Slab products achieves a thermal conductivity lambda (λ) value as low as 0.034 W/mK.

Product	Nominal density (kg/m ³)	Thermal conductivity	Dimensions (mm)
RWA45	45	0.035 W/mK	1200 x 600*
RW3	60	0.034 W/mK	1200 x 600*
RW4	80	0.034 W/mK	1200 x 600*
RW5	100	0.034 W/mK	1200 x 600*
RW6	140	0.035 W/mK	1200 x 600*

* Faced slabs come in 1000 x 600mm dimensions.

Fire performance

ROCKWOOL RW Slabs are non-combustible achieving a reaction to fire classification of A1, as defined in EN13501-1.

Acoustic performance

The non-directional fibre orientation and density of stone wool means that sound waves are trapped, and vibrations dampened which can significantly reduce outside sources of noise when used in an external wall.

ROCKWOOL insulation retains its shape and thickness for the lifetime of the building, which means it performs acoustically decade after decade.

Facings

RW Slabs are available with a number of facing options to one or both sides of the slab, subject to production compatibility and minimum order quantities.

These options are:

- Non-woven mineral black tissue (60gsm)
- Non-woven mineral white tissue (100gsm)
- Aluminium foil

Product Data Sheet

Application: Internal Walls and Floors

Isover Acoustic Partition Roll (APR 1200)



Acoustic Insulation for Internal Stud Walls and Floors

Isover Acoustic Partition Roll (APR 1200) is a glass mineral wool roll that can provide a level of acoustic performance in metal and timber internal stud walls as well as timber joist separating and internal floors. To support ease of installation, it is supplied in 600mm widths for an easy friction fit between stud centres.

Features and Benefits



**ACOUSTIC
INSULATION**

When used in British Gypsum internal wall and floor elements, Isover Acoustic Partition Roll (APR 1200) can contribute towards a measurable reduction in airborne sound transmission. Refer to the British Gypsum White Book System Selector for system-specific data. The SpecSure® warranty confirms British Gypsum proprietary systems will perform as specified for the lifetime of the building. For further details, please visit british-gypsum.com/technical-advice/specsure.



**A1 FIRE
CLASSIFICATION**

Achieves a Euroclass A1 Reaction to Fire classification, according to EN 13501-1.



**RECYCLED
GLASS**

Manufactured from up to 82% recycled glass with all electric equipment in the plant powered by 100% renewable electricity. For further details visit isover.co.uk/CSR



**EASE
OF INSTALL**

Straightforward to handle, cut and install with minimal waste (off-cuts can be reused). Friction fits between 600mm stud centres.

Key Considerations

When using Isover Acoustic Partition Roll (APR 1200), you need to satisfy yourself that use of the product meets all relevant national Building Regulations and guidance as well as local, national and other applicable standards relevant for your construction or application, including requirements in relation to fire and applicable height restrictions.

Please refer to the following product documents:

- Declaration of Performance - available at isover.co.uk/products/isover-acoustic-partition-roll-apr-1200
- Safe Use Instruction Sheet - available at isover.co.uk/healthandsafety

Product Specification

Product code	Thickness (mm)	Length (m)	Width (m)	Roll area (m ²)	Rolls per pallet	Pallet area (m ²)
5200625577	25	20.00	2 x 0.60	24.00	24	576.00
5200625578	50	13.00	2 x 0.60	15.60	24	374.40
5200625579	65	10.00	2 x 0.60	12.00	24	288.00
5200625580	75	12.20	2 x 0.60	14.64	24	351.36
5200625581	100	9.17	2 x 0.60	11.00	24	264.10

Characteristics

Fire	Euroclass A1 Reaction to Fire classification according to EN 13501-1.	Certification	UKCA Marked to BS EN 13162. CE marked to EN 13162. Designation code: MW-EN 13162-T1.
Environmental	All Isover products are manufactured under Environmental Management System – ISO 14001:2015.	Handling, Storage, Health and Safety	Information regarding storage, installation and handling of Isover products and health & safety information can be found at isover.co.uk/healthandsafety .
Recycled Content	Manufactured from up to 82% recycled glass.	Quality	All Isover products are manufactured under Quality Management Standard – ISO 9001.

TECHNICAL DATA

REGUPOL SONUS MULTI 4.5

formerly REGUPOL 4515 Multi

Product

Tough and resilient acoustic underlay that has been developed to attenuate impact sound beneath a range of floor finishes, delivering exceptional acoustic performance without ageing or collapsing.

REGUPOL sonus multi 4.5 meets the requirements of Approved Document E (England & Wales), Technical Booklet G (Northern Ireland) and Example Construction floors under Section 5 (Scotland) – See performance section for details



MADE IN
GERMANY



¹

REGUPOL sonus multi 4.5 is also available as a fire-retardant version.

¹ Tested as per French VOC regulation décret n° 2011-321

Features and Benefits

- Designed for use with a wide range of floor finishes, including carpet, carpet tiles, wooden and laminate based floor finishes
- Offers long term performance without collapse or bottoming out under high point loads
- Resistant to ageing and deformation
- Suitable for underfloor heating
- Quick and easy to install - simply bond to the subfloor beneath the final floor finish
- Product manufactured using recycled materials and 100% recyclable
- Manufacturing facility certified to ISO 9001, ISO 45001, ISO 14001, ISO 50001

Applications

Widely used in developments where effective sound control is essential and interior design flexibility is a priority. These include

- Apartments
- Education
- Hotels
- Commercial
- Leisure
- Bespoke architectural projects
- Care homes

Physical information

Roll width	1000mm	
Roll length	18m	
Material thickness	4.5mm	
Weight per roll / per m ²	44kg	2.20kg/m ²
Material composition	PUR foam/Cork	

Acoustical Performance	Standard	Result	Comment
160mm Robust Detail Appendix D floor with no ceiling	BS EN ISO 140-8:1998	ΔL_w 18 dB	Test report SRL 3309
130mm concrete slab with 60mm profile deck	BS EN ISO 140-7:1998	$L'_{nT,w}$ 48 dB	Test report PJD/NC/3591
6mm timber flooring, REGUPOL sonus multi 4.5 , 30mm K-screed, 225mm concrete slab	BS EN ISO 140-7:1998	$L'_{nT,w}$ 54 dB	Test report 18264/SIT1
8mm laminate flooring (non-bonded), REGUPOL sonus multi 4.5 (non-bonded), 150mm concrete slab	AS ISO 717.2-2004 ISO 140-8: 2006 (E) ISO 140-6-2006	ΔL_w 19 dB $L_{n,w}$ 60 dB	Test report RG088 – INR216-09-1
14mm engineered timber (non-bonded), REGUPOL sonus multi 4.5 , (non-bonded), 150mm concrete slab	AS ISO 717.2-2004 ISO 140-8: 2006 (E) ISO 140-6-2006	ΔL_w 17 dB $L_{n,w}$ 60 dB	Test report RG086 – INR210-06-01

Material properties	Standard	Result
Density		approx. 420kg/m ³
Compressive stress-strain characteristic at 25% compression (CC25)	DIN EN ISO 3386-2	> 1450 kPa
Elongation at break	DIN EN ISO 1798	≥ 20 %
Tensile strength		≥ 1.0 N/mm ²

Thermal behaviour	Standard	Result
Thermal conductivity	BS 4745-2005 (Two-plate)	$\lambda = 0.089$ W/(mK)
Temperature resistance		-20 to +60° C
Tog rating	BS 4745-2005 (Two-plate)	0.54

Fire behaviour	Standard	Result
Fire classification	DIN EN 13501-1	E (B _{fl} -s1, available on request)

Health protection	Standard	Result
VOC	DIN EN 16516	compliant with EU-LCI list and German AgBB scheme; “A+” as per décret n°2011-321

Type of screed or base - Measurement criteria

Screeds to receive applied flexible floorings

BS 8203.2-m Straight edge laid in contact with the screed	Maximum gap measured with a slip gauge	
	SR1	3mm
	SR2	5mm
	SR3	10mm

Screeds to receive toppings or in situ applied floorings

BS 8204-1.2-m Straight edge laid in contact with the screed	Maximum gap measured with a slip gauge	
	SR1	3mm
	SR2	5mm
	SR3	10mm

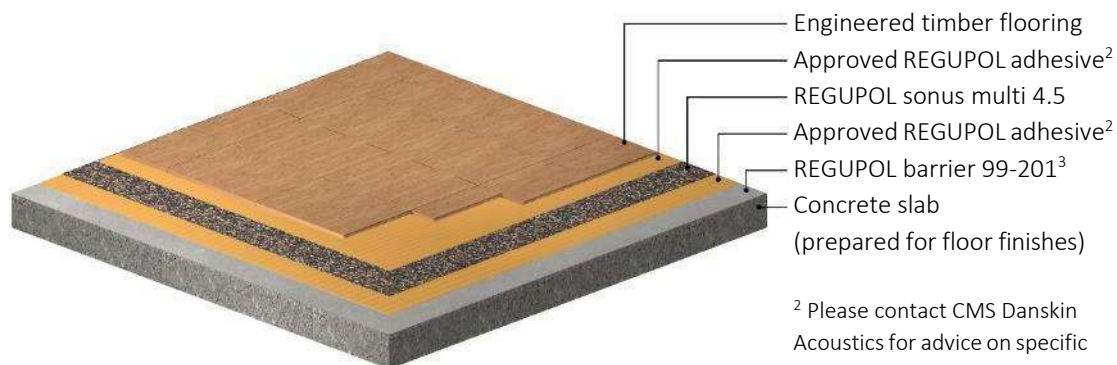
Screeds to receive adhesive fixed rigid tile applied floorings

BS 5385-3.2-m Straight edge laid in contact with the screed	Maximum gap measured with a slip gauge	
	SR1	3mm
	SR2	5mm
	SR3	10mm

Screeds to receive timber flooring

BS 8201 Localised variations in level should not exceed +/- 3mm from the mean when measured over a 2m-distance using a straight edge	Maximum gap measured with a slip gauge	
	SR1	3mm
	SR2	5mm
	SR3	10mm

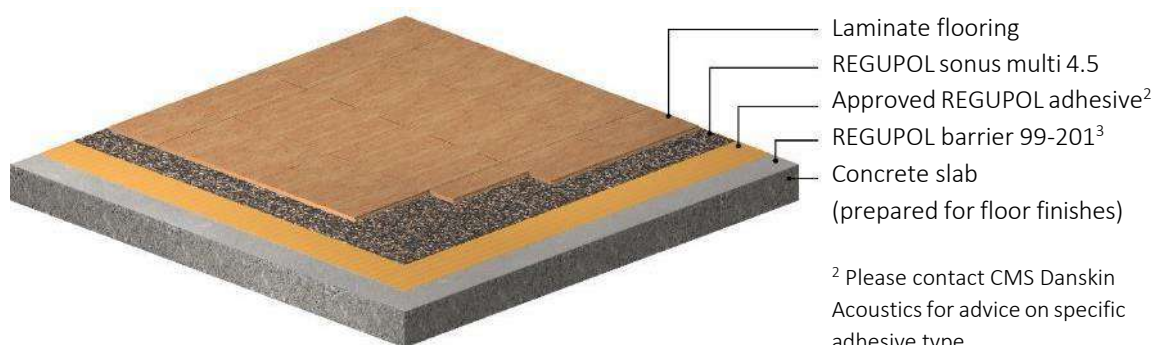
Floor assembly Engineered wood



² Please contact CMS Dansk
Acoustics for advice on specific
adhesive type.

³ If moisture exceeds required levels

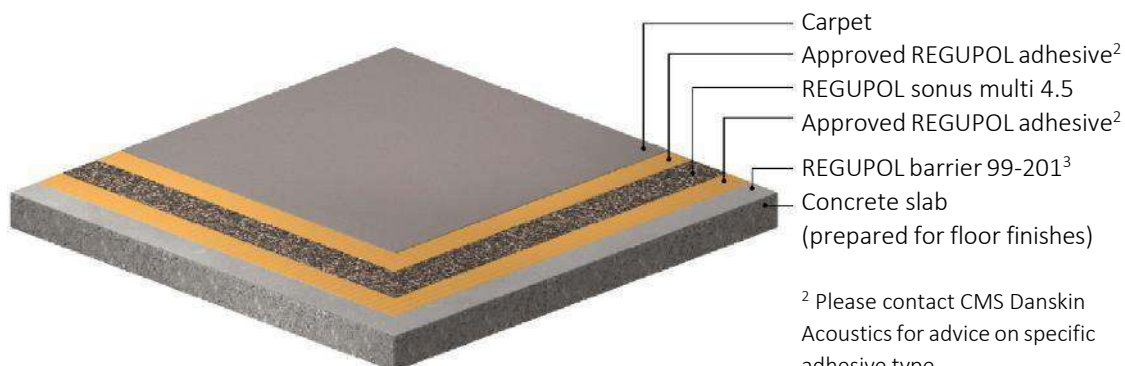
Floor assembly Laminate flooring



² Please contact CMS Dansk
Acoustics for advice on specific
adhesive type.

³ If moisture exceeds required levels.

Floor assembly Carpet

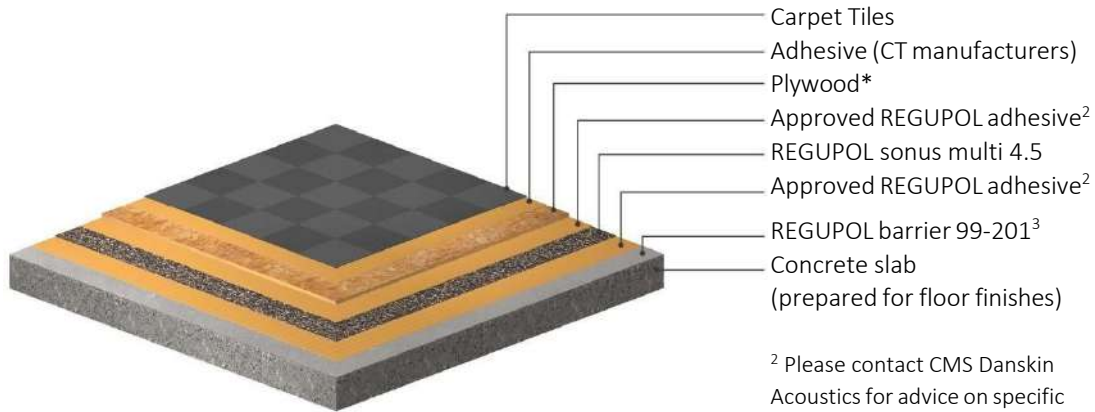


² Please contact CMS Dansk
Acoustics for advice on specific
adhesive type.

³ If moisture exceeds required levels

Floor assembly

Carpet Tiles



² Please contact CMS Danskin Acoustics for advice on specific adhesive type.

³ If moisture exceeds required levels

Installation

Full installation guidelines are available on request. However, key points to observe are:

- Area of installation must be dry, dirt and dust free and weather tight.
- If over 75% RH, use **REGUPOL barrier 99-201**. To determine RH, please use a Hygrometer.
- **REGUPOL sonus multi** should be unwound and left for a minimum 8 hours or ideally overnight at the place where it is to be installed, to allow for any potential shrinkage.
- The subfloor must be sound, smooth and dry. A self-levelling compound may be required to achieve the desired 'SR' value.
- **REGUPOL sonus multi** acoustic underlays can be easily installed providing the CMS Danskin Acoustics installation guidelines are followed at all times.
- When bonding to bare concrete a suitable concrete sealer is recommended to ensure maximum adhesive coverage and bond strength.
- When installing timber flooring over **REGUPOL sonus multi** always use a flanking band around the perimeter to reduce impact transmissions into walls.
- When installing ceramic tiles, stone and vinyl flooring leave at least a 3mm gap around the perimeter which should be filled with a flexible sealant.

Storage

REGUPOL sonus multi must be stored indoors. At no time must the **REGUPOL sonus multi** be exposed to the elements of the weather. **REGUPOL sonus multi** must always be kept dry, otherwise moisture will build up in the material and will subsequently make bonding to the subfloor very difficult. Moisture will also cause the material to curl and ripple at the edges once unrolled. It is recommended that the polythene packaging be removed in the area where it shall be applied

Note:

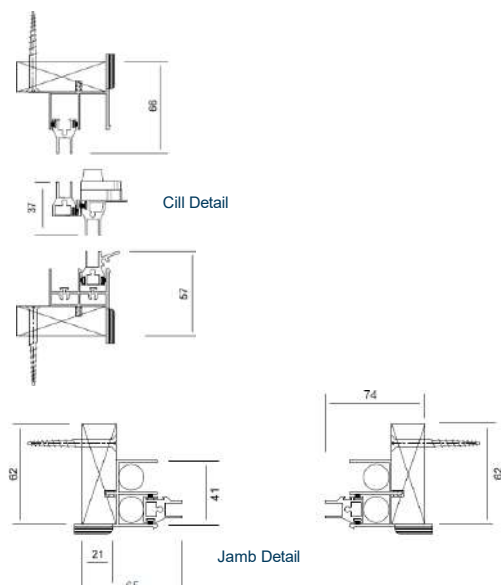
For timber-based constructions please contact CMS Danskin Acoustics for technical guidance and advice.

IMPORTANT: The information provided within this document is believed correct and to the best of our available knowledge at its revision date and is provided as suggestion for safe handling, storage, transportation, use and disposal. The information should not be considered obligation in respect of warranty of (technical) performance, quality (specification) or suitability for any application or design. The customer must satisfy themselves the product (or draft specification) are relevant and suitable for their need and design intent. Prospective users should test a sample of product under their own conditions to satisfy themselves of its suitability for intended purpose and that expert advice be sought where different applications are contemplated. Due to our policy of continuous improvement we reserve the right to alter or amend published specification or design without prior notice. Reproduction of any part of this publication in any manner is not permitted without our prior written consent.

Secondary Glazing

Traditional Product Range Tilt-In Balanced Vertical Slider

Discreet units with self-supporting panes. The tilt-in facility enables each secondary sash (panel) to be independently released from the outer frame and pivoted inwards through almost 180°.



Features

- Slim, unobtrusive aluminium profile
- Smooth sliding action utilising spring balances to ensure ease of use and to support the weight of the panel
- Both panels tilt-in to allow easy access for cleaning and maintenance
- Improved noise and thermal installation
- Suitable for arched applications (please note: top panel won't tilt)
- Suitable to have bevelled timber subframe to fix into bays /splayed reveals
- Can be coupled or stacked with other units in the range to treat large areas of glazing or long runs of windows

Variations of Basic Unit

- Goal post subframe and aluminium available
- Locking Fitch Catch available
- Standard and acoustic trickle vents are available
- Tilt-in balanced vertical slider can be coupled and stacked using a heavy duty frame coupling section or timber to timber
- Larger PVCu trims and timber trims available at an additional cost
- Variety of stock colours available, including all RAL options
- Can accept flyscreen mesh

Specification

- Glazing options: 4mm - 6.8mm
- Choice of timber subframes
- Pre-drilled and countersunk to suit either face fix or reveal fix
- Woolpile inserted into panel section groove to create outer frame seal
- Gasket colour option of black or white
- PVCu trims supplied for the face of the units to create a neat, clean finish
- Fitch catch located centrally on mid-rail
- Standard colour - white high gloss - RAL 9910



Optimum Noise Reduction: 48dB (Rw)

Using 6.4mm acoustic laminate glazing, with 200mm glass-to-glass



Optimum U Value: 1.868 W/m²K

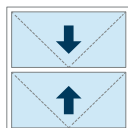
Using 4mm toughened Low E glazing, with 80mm glass-to-glass

Traditional
Configurations

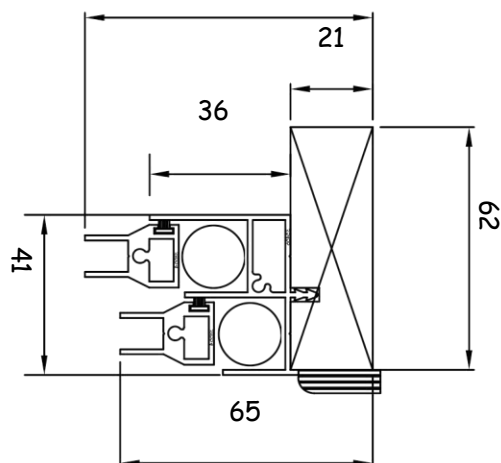
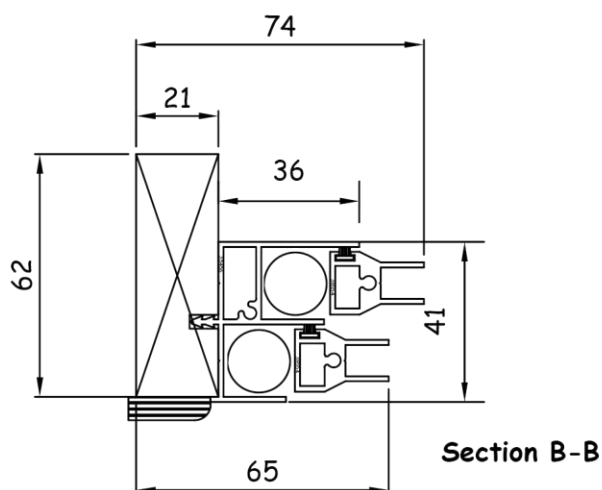
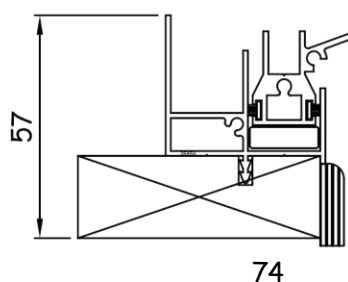
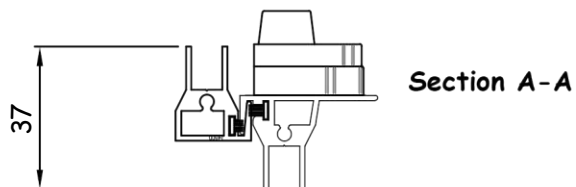
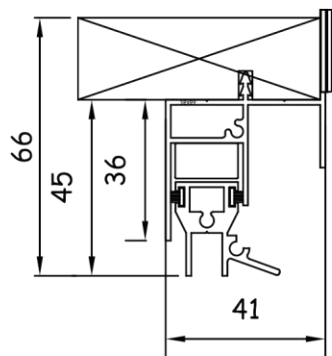
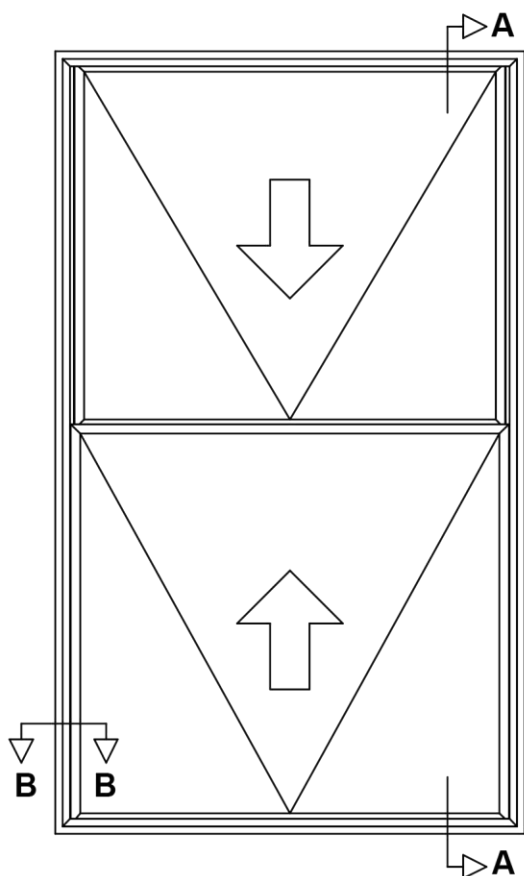
Based on 4mm Glass

Max width:
or Max height:

TBVS



1,500mm
3,000mm



Optional Extras

- Locking fit catch
- White gasket
- Aluminium coupling mullion
- Stacking interlock transom
- Trickle vents / acoustic trickle vents
- RAL colours
- Flyscreen
- Timber sizes other than standard available on request

Standard Product Specification:

Aluminium 6063T6 alloy to BS EN 755 standard, powder coated to BS 6496 to 60 micron finish.

Stock finish: White - Interpon SA 098E high gloss. The sub-frame is manufactured from primed high quality, environmentally certified (MTCS) engineered timber. Standard sizes Reveal Fix: 62mm x 21mm & Face Fix: 45mm x 21mm.

All frames are factory glazed.

Standard gasket colour is black.

All frames include pvc-u trim as standard - Painted MDF or PEFC timber available upon request.

In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

Type: Tilting Balanced Vertical Slider Reveal Fix

Reference: TBVS

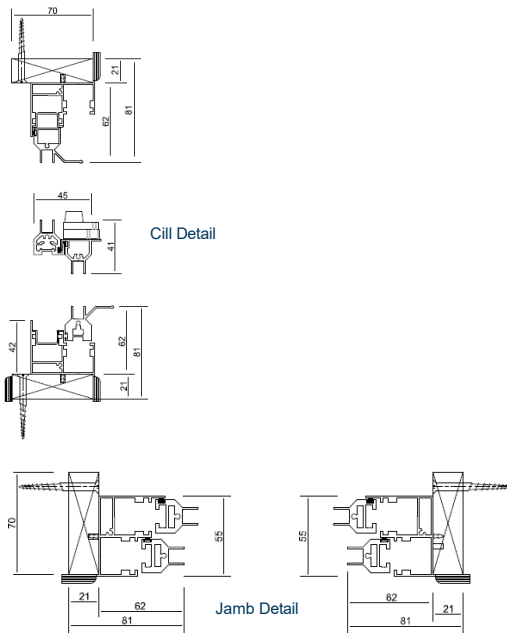
Rev: 1

GRANADA
Campbell Way glazing
Dinnington
Sheffield
S25 3QD

Tel: 01909 499 899
W: www.granadaglazing.com

Heritage Product Range Balanced Vertical Slider

A removable panel within its own outer frame, fixed to the face or reveal of the existing window. These units use an aluminium twin track profile, to provide a secure fixing for larger panes of glass.



Features

- Slim, unobtrusive aluminium profile
- Smooth sliding action utilising spring balances to ensure ease of use and to support the weight of the panel
- Improved noise and thermal installation
- Enhanced security
- Suitable for arched applications
- Suitable to have bevelled timber subframe to fix into bays /splayed reveals
- Can be coupled or stacked with other units in the range to treat large areas of glazing or long runs of windows

Variations of Basic Unit

- Tilt-In Version of the unit available
- Goal Post subframe and aluminium available
- Locking Fitch Catch available
- Standard and acoustic trickle vents are available
- Balanced vertical slider can be coupled and stacked using a heavy duty frame coupling section or timber to timber
- Larger PVCu trims and timber trims available at an additional cost
- Variety of stock colours available, including all RAL options
- Can accept flyscreen mesh

Specification

- Glazing options: 4mm - 8.8mm
- Choice of timber subframes
- Pre-drilled and countersunk to suit either face fix or reveal fix
- Woolpile inserted into panel section groove to create outer frame seal
- Gasket colour option of black or white
- PVCu trims supplied for the face of the units to create a neat, clean finish
- Fitch catch located centrally on mid-rail
- Standard colour - white high gloss - RAL 9910



Optimum Noise Reduction: 49dB (Rw)

Using 6.4mm acoustic laminate glazing, with 200mm glass-to-glass



Optimum U Value: 1.868 W/m²K

Using 4mm toughened Low E glazing, with 80mm glass-to-glass

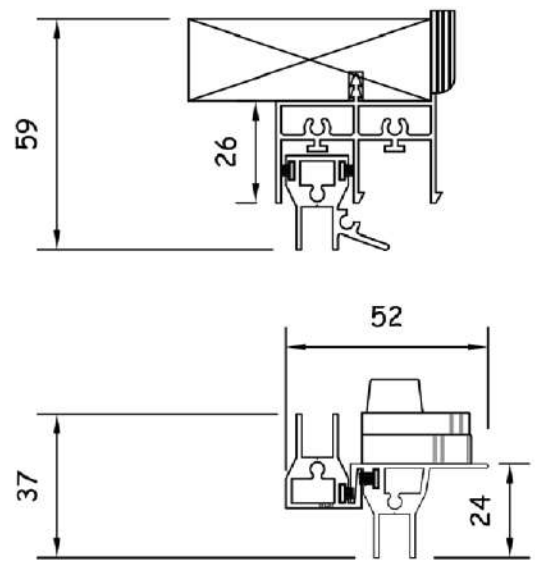
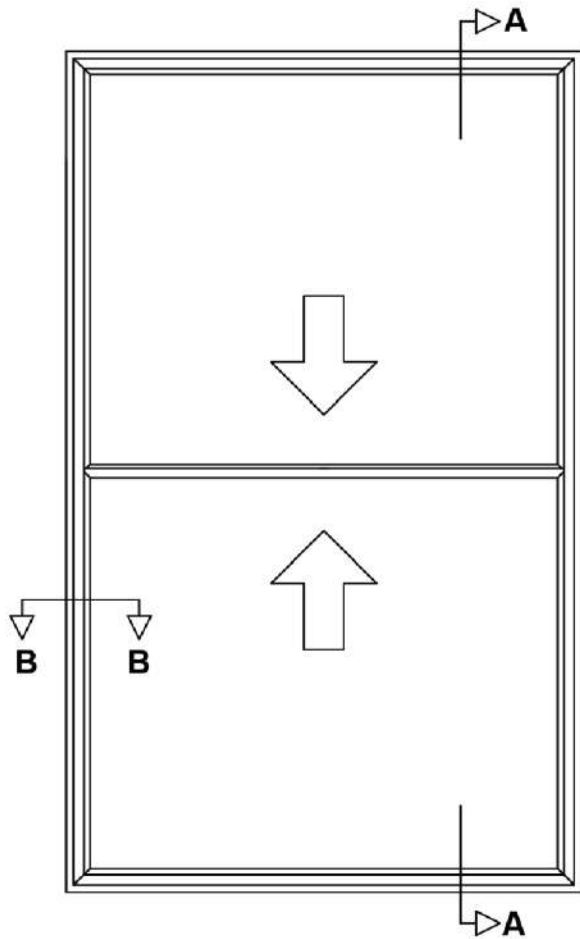
Heritage
Configurations

HTBVS

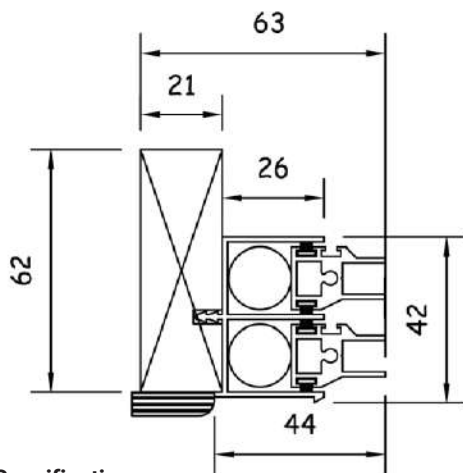
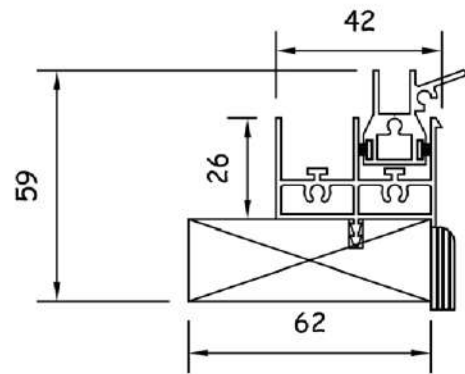


Based on 4mm Glass

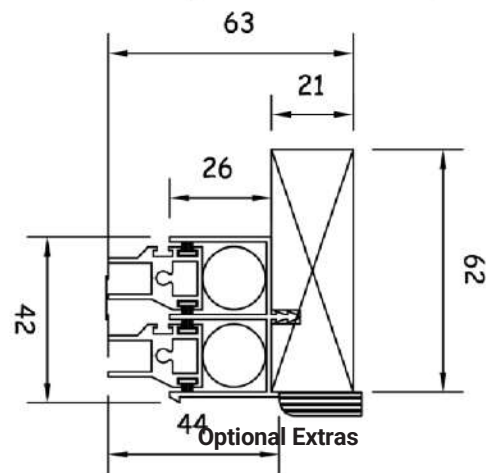
Max width: 1,500mm
or Max height: 3,000mm



Section A-A



Section B-B



Standard Product Specification:

Aluminium 6063T6 alloy to BS EN 755 standard, powder coated to BS 6496 to 60 micron finish.

Stock finish: White - Interpon SA 098E high gloss. The sub-frame is manufactured from primed high quality, environmentally certified (MTCS) engineered timber. Standard sizes: Reveal Fix: 62mm x 21mm & Face Fix: 45mm x 21mm.

All frames are factory glazed.

Standard gasket colour is black.

All frames include pvc-u trim as standard - Painted MDF or PEFC timber available upon request.

In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

Type: Balanced Vertical Slider Reveal Fix

Reference: BVS

Rev: 1

- Locking fitch catch
- White gasket
- Aluminium coupling mullion
- Stacking interlock transom
- Trickle vents / acoustic trickle vents
- RAL colours
- Flyscreen
- Timber sizes other than standard available on request

GRANADA
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 Sheffield
 S25 3QD

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 W: www.granadaglazing.com

Minimum & Maximum Size Guide

Secondary Glazing		Max Panel Weight KG'S	Minimum overall size (equal split) (mm)		Minimum panel size (mm)		Maximum size (mm)		Maximum size (mm)		On Application (mm)		Maximum Glass Thickness
							4mm Glass		6mm Glass or 6.4mm Laminate		6mm Glass or 6.4mm Laminate		
			Width	Height	Width	Height	Width	Height	Width	Height	Width	Height	
Standard	SS2	40kg	400	250	1/2 of min overall width		2400	1800	2400	2000	4900	2000	6.8mm
	SS3 / CO3	40kg	550	250	1/3 of min overall width		3600	1800	3600	2000	4900	2000	6.8mm
	SS4	40kg	700	250	1/4 of min overall width		4900	1800	4900	2000	4900	2000	6.8mm
	SS5	40kg	850	250	1/5 of min overall width		4900	1800	4900	2000	4900	2000	6.8mm
	INS	40kg	200	200	NA		1200	2000	2000	2000	2000	2500	6.8mm
	BVS	25kg	350	600	1/2 of min overall height		1500	3000	1500	3000	1600	3600	6.8mm
	TBVS	25kg	350	700	1/2 of min overall height		1500	3000	1400	2700	1400	3000	6.8mm
	LO	on application	250	300	NA		2000	2000	on application	on application	on application	on application	6.8mm
	SLLO	on application	250	300	NA		2000	2000	on application	on application	on application	on application	6.8mm
	HU	35kg	347	385	NA		950	2,100	950	2100	950	2,100	6.8mm
Heritage	HSS2	60kg	1000	500	1/2 of min overall width		3200	2700	4900	2700	NA	NA	8.8mm
	HSS3 / HCO3	60kg	1500	500	1/3 of min overall width		4900	2700	4900	2700	NA	NA	8.8mm
	HSS4	60kg	2000	500	1/4 of min overall width		4900	2700	4900	2700	NA	NA	8.8mm
	HSS5	60kg	2500	500	1/5 of min overall width		4900	2700	4900	2700	NA	NA	8.8mm
	HBVS	48kg	400	900	1/2 of min overall height		1500	3000	1400	3000	1800	3800	8.8mm
	HTBVS	48kg	400	900	1/2 of min overall height		1500	3000	1400	3000	1800	3800	8.8mm
	HHU	130kg	350	500	NA		1400	2400	1500	3000	1600	3200	28mm
	HHU-TT	130kg	600	500	NA		1400	2400	1400	2400	1400	2400	28mm
	DHHU	130kg	700	500	1/2 of min overall width		2800	2800	3000	3000	3200	3200	28mm
	HSLO	on application	500	500	NA		2000	2000	on application	on application	on application	on application	8.8mm

Important Note! Maximum sizes are for width OR height, not combined i.e. Do not exceed the maximum panel weight.

A LOW-RISK LIFT for a person of average strength and build is considered to be a maximum of 25kg. If you are in any doubt, look to reduce the risk by asking someone to share the lift with you or your client, particularly if you or the client are in a higher risk group e.g. Elderly, Disabled, Pregnant or Young. Refer to <http://www.hse.gov.uk/msd/mad/index.htm> for further help.

On Application - Windows in this area are beyond our maximum size limit. However, we may be able to make the windows but we will not offer any guarantee of performance and will accept your order solely on this basis. Alternatively, please redesign the window to comply with the recommended sizes to benefit from the full product warranty.

- Maximum Glass Size 2050 x 3250
- Maximum Window size for delivery: 1800mm x 4000mm - Over sized windows will be packaged as kit form
- MAXIMUM AREA FOR 4mm Annealed / Float GLASS IS 1.6m² - Allow for 4mm TOUGHENED GLASS IF PANEL SIZE EXCEEDS THIS
- MAXIMUM AREA FOR 4mm Toughened GLASS IS 2.5m²
- MAXIMUM AREA FOR 6mm Annealed / Float GLASS IS 3.0m² - Allow for 6mm TOUGHENED GLASS IF PANEL SIZE EXCEEDS THIS
- Flyscreen Maximum size 1200mm in one direction (comes on a roll 1200 wide!)
- HORIZONTAL SLIDERS OVER 1800mm HIGH WILL HAVE 21243 MEDIUM STRENGTHENING INTERLOCK ADDED AT NO EXTRA COST
- HORIZONTAL SLIDERS OVER 2000mm HIGH WILL BE HERITAGE
- Our Standard White = Interpon SA 098E high gloss. Nearest RAL = 9910 high gloss
- Stacked units Standard or Heritage Reveal Fix - If the bottom unit is a Horizontal Slider Support Bars must be used which means deeper timbers. Standard 62mm becomes 70mm. Heritage 70mm becomes 80mm.
- + / - frame tolerance = 3mm
- To estimate the weight of a panel or window use the glass weight for the overall panel or window size.
Multiply width x height x glass weight
4mm glass = 10kg/m² 6mm glass = 15kg/m² 6.4mm glass = 16kg/m²
8mm glass = 20kg/m² 8.4mm glass = 21kg/m²
For double glazed units add the two panes together

- Points to note for any Large Frame
 - Can you get it in the building, up the stairs etc.?
 - Can it be operated safely i.e. Is there room to open a large Hinged Unit?
 - Should it be fixed and only operable by maintenance?
- Insert on plastic hinges must not exceed 10kg
- Minimum Width for Arched Head windows

Insert	400mm (200mm radius)
Lift Out	400mm (200mm radius)
BVS	500mm (250mm radius)
TBVS	500mm (250mm radius)
HTBVS	800mm (400mm radius)
HHU	800mm (400mm radius)
- Horizontal Sliders Panel - Maximum Aspect Ratio Width to Height 1:5

Acoustic Performance Test Results

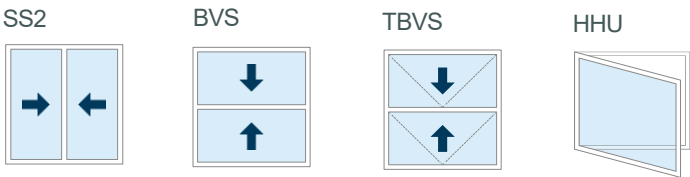
	Primary Window 4mm Float Glass				Primary Window 6mm Float Glass			
	200mm Glass to Glass				200mm Glass to Glass			
Secondary Glazing	SS2	HHU	BVS	HTBVS	SS2	HHU	BVS	HTBVS
4mm Toughened	49	50	49	47	51*	51	51	48
6mm Toughened	50*	51*	51*	47*	51*	52*	52*	48*
6.4mm Acoustic Laminate	51	52	53	48	52*	53*	54*	50
8.8mm Acoustic Laminate	NA	52*	NA	48*	NA	53*	NA	49
10.8mm Acoustic Laminate	NA	53*	NA	NA	NA	54	NA	NA

	Primary Window 4mm Float Glass				Primary Window 6mm Float Glass			
	150mm Glass to Glass				150mm Glass to Glass			
Secondary Glazing	SS2	HHU	BVS	HTBVS	SS2	HHU	BVS	HTBVS
4mm Toughened	48*	48*	47*	46*	51*	50*	50*	47*
6mm Toughened	49*	49*	48*	46*	51*	50*	50*	47*
6.4mm Acoustic Laminate	50*	50*	49*	47*	52	51*	52*	48*
8.8mm Acoustic Laminate	NA	50*	NA	47*	NA	51*	NA	48*
10.8mm Acoustic Laminate	NA	51*	NA	NA	NA	52*	NA	NA

Granada Secondary Glazed windows have been tested at Chiltern Dynamics in accordance with BS EN ISO 10140-2: ‘Laboratory measurement of airborne sound insulation of building elements’. The table shows results for secondary windows set at a 200mm and 150mm cavity with 4mm or 6mm float glass in the primary window. Chiltern’s Dynamics lab is UKAS Accredited No.1762

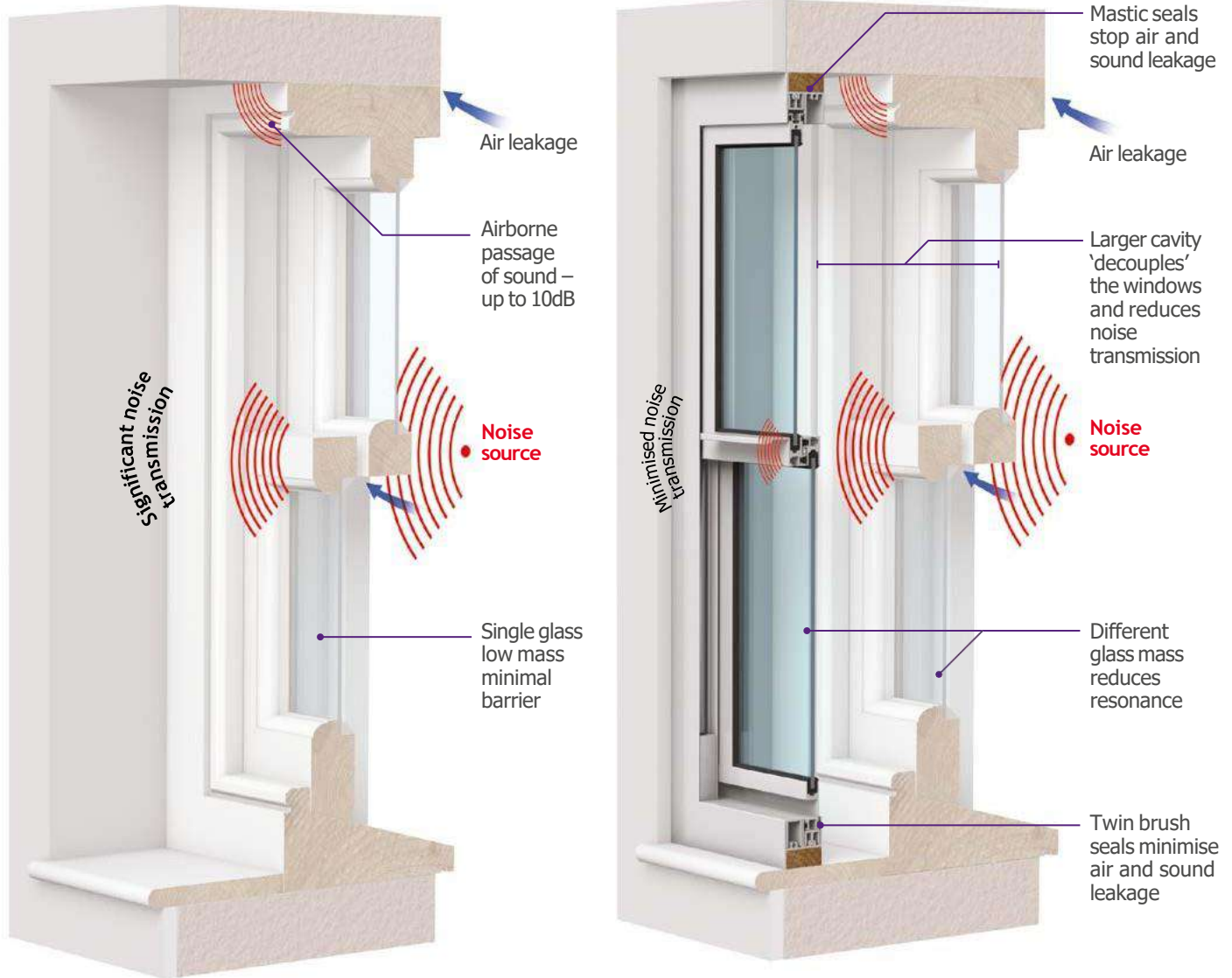
* Sound reduction figures predicted by Chiltern Dynamics using the basis of actual laboratory test results. Sound Reduction (Rw) measured in dB.

Product Styles



How secondary glazing improves acoustic performance

Original window with secondary glazing



Sound is transmitted through a window by direct vibration of the glass. The larger air space created by secondary glazing decouples the movement of the inner and outer glass, which means they act as separate barriers, thereby reducing resonance.

By contrast, a typical sealed glass unit, where the two panes of glass are rigidly connected and have a minimal cavity, performs little better than a single pane.

Airborne sound is also a major problem with ill-fitting windows – a 1% gap in the total window area can reduce sound insulation by as much as 10dB. A purpose-made secondary window seals the whole of the external window with frames bedded on an acrylic sealant and opening panels fitted with high performance seals.

Primary Glass Thickness	Secondary Glass Thickness	Rw dB valves for Selectaglaze Ltd Secondary Glazing Systems*																									
		S10 HS	S15 HS	S20 VS	S25 VS	S30 LO	S31 LO	S41 SHC	S41 DSH	S41 LO	S40 FL	S44 SHC	S44 DSH	S45 SHC	S45 DSH	S45 LO	S46 FL	S50 SHC	S50 LO	S55 DFL	S60 TVS	S80 HS	S85 HS	S90 VS	S95 VS		
		100mm cavity																									
6mm	4mm Toughened	43		43		42							45	43	45					44							
6mm	6mm Toughened	43		43		42		45	43	45	45		45	43	45	45	44	44		44	44			44			
6mm	6.4mm	43		43		42		45	43	45	45		45	43	45					44	44			44			
6mm	6.4mm Accoustic	44		44		43		46	44	46	46		46	44	46					45	45			45			
6mm	6.8mm	44		44		43		46	44	46	46		46	44	46					45	45			45			
6mm	6.8mm Accoustic	44		44		43		46	44	46	46		46	44	46					45	45			45			
6mm	7.5mm							46	44	46	46						45	45	44		45		44	44			
6mm	8mm Toughened							47	45	47	47										46		46				
6mm	8.8mm							47	45	47	47										46		46				
6mm	8.8mm Accoustic							47	45	47	47							46	46		46		46				
6mm	9.5mm							47	45	47	47						47	46	46	45		46	45	46			
6mm	10mm Toughened							47	45	47	47										46		46				
6mm	10.8mm Accoustic							48	46	48	48							47	47		47		46				
6mm	10.8mm							48	46	48	48							47	47		47		46				
6mm	11.5mm							48	46	48	48						48	47	47	46		47	46	47			
6mm	12mm Toughened							48	46	48	48										46			46			

Rw Correction Factors (based upon laboratory scenarios)

acoustic tiles on 3 No sides -
low spec glass +2 dB

acoustic tiles on 3 No sides -
high spec glass +1 dB

acoustic vent 4000 open -2 dB

trickle vent 4000 open -3 dB

trickle vent 8000 open -5 dB

Values have been interpolated and extrapolated from
Rw values achieved at Taylor Woodrow on 21 to 22
March 2006.

100mm cavity

*See attached Selectaglaze drawings in
Appendix A illustrating secondary glazing
systems listed above

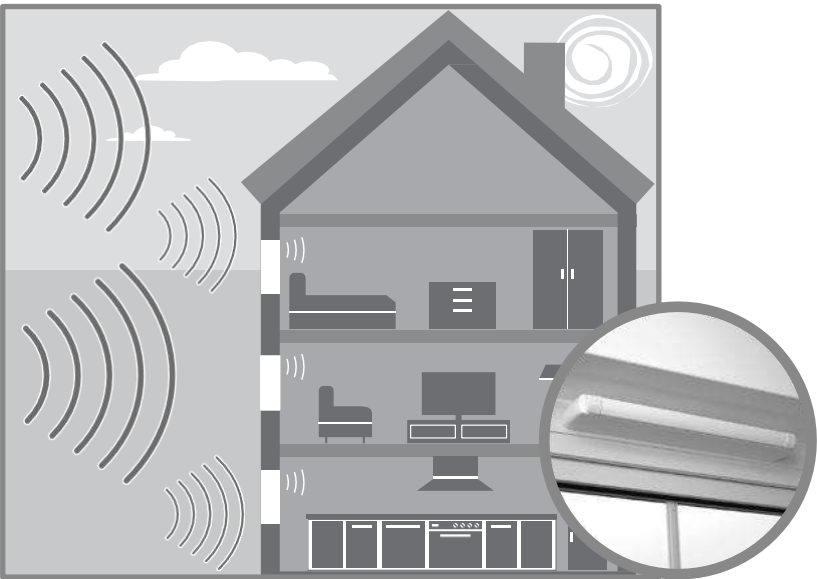
DRAWN	DATE	ISSUE	AA	AB	AC	AD	AE	AF
Sarjak G	23-06-21	C.N.	15/042	16-058	16-072	17-003	18-036	21-009
DESCRIPTION	Rw dB values for selectaglaze Systems							
This document is the property of Selectaglaze Ltd and is issued on the express terms that it is to be treated as private and confidential and is not to be copied or communicated to any other person. All patents, manufacturing and design rights are reserved by Selectaglaze Ltd.			SHEET 2	OF 4	SHEETS	CAD FILE NAME	DS-056-AF.dwg	
			DATA SHEET NUMBER	DS-056				ISSUE AF

Sound Attenuating Ventilation

Improved Product Solutions

Cutting down on noise entering a property is very difficult whilst attempting to achieve required ventilation levels. The very fact that ventilation requires making a hole, or holes, in the building fabric means that external noise is liable to reach the dwelling occupants more easily.

There are a number of products on the market that claim to achieve high sound reduction figures however it is important all are checked with acoustic consultants. This is because the quoted sound reduction level for a trickle ventilator isn't measured in the same way as a window. For instance, a window with a sound reduction of 35dB used with a background ventilator giving a sound reduction of 35dB will result in somewhat less than 35dB. If more than one vent is required, the attenuation level becomes progressively worse.



At Titon we have worked hard to develop products which perform to the highest sound attenuation levels possible, but we appreciate we cannot change the laws of physics and acoustics. We always try to make people aware of the pitfalls rather than claim that our sound attenuation products are going to solve every problem.

We have a range of products, from basic slot vents, which could perform satisfactorily in certain situations (all of our main ranges have been tested for sound attenuation), through dedicated sound attenuating vents, to mechanical products with much higher sound attenuating properties. Some products are suitable for retrofitting.

Below is a list of the main products in our ventilation portfolio, including their sound attenuating capabilities.

Trimvent Select XS13		
Fits on the window, passive. Sizes: 4400EA or 5000EA.		
Ventilation Strategy: System 1 (extract fans and background ventilators) or System 3 (central mechanical extract with background ventilators)		
		
Sound Attenuation level:		
	Open	Closed
4400EA version (vent and canopy)	Dn,e,w (C;Ctr) 32 (0;1)dB	Dn,e,w (C;Ctr) 41 (0;-1)dB
5000EA version (vent and canopy)	Dn,e,w (C;Ctr) 32 (-1;0)dB	Dn,e,w (C;Ctr) 35 (0;0)dB

SF Xtra Sound Attenuator - Improved Sound Attenuation Performance

Fits on the window, passive.

Sizes: All combinations below offer 2500EA.

Ventilation Strategy:

System 1 (extract fans and background ventilators) or

System 3 (central mechanical extract with background ventilators).

This product can also be retrofitted to a property in place of standard background ventilators subject to space being available.

Acoustic and ventilation performance will vary according to the size of the pre-existing slot in the window.



Sound Attenuation level:

	Open	Closed
V75 + C75	Dn,e,w (C;Ctr) = 44 (-2;-3)dB	Dn,e,w (C;Ctr) = 55 (-1;-5)dB
V75 + C50	Dn,e,w (C;Ctr) = 42 (-1;-2)dB	Dn,e,w (C;Ctr) = 55 (-2;-5)dB
V75 + standard canopy	Dn,e,w (C;Ctr) = 40 (-1;-2)dB	Dn,e,w (C;Ctr) = 53 (-1;-4)dB
V50 + C25	Dn,e,w (C;Ctr) = 39 (-1;-2)dB	Dn,e,w (C;Ctr) = 55 (-2;-5)dB
V50 + standard canopy	Dn,e,w (C;Ctr) = 38 (-1;-2)dB	Dn,e,w (C;Ctr) = 55 (-2;-5)dB
V25 + C25	Dn,e,w (C;Ctr) = 36 (-0;-2)dB	Dn,e,w (C;Ctr) = 55 (-1;-5)dB
V25 + standard canopy	Dn,e,w (C;Ctr) = 35 (-0;-1)dB	Dn,e,w (C;Ctr) = 54 (-1;-4)dB
Standard vent + C25	Dn,e,w (C;Ctr) = 35 (-0;-1)dB	Dn,e,w (C;Ctr) = 55 (-1;-5)dB
Standard vent + standard SF canopy	Dn,e,w (C;Ctr) = 32 (-1;-0)dB	Dn,e,w (C;Ctr) = 52 (-2;-4)dB

Sonair

Fits through the wall, mechanical supply with filter.

Ventilation Strategy:

System 1 (extract fans and background ventilators) or

System 3 (central mechanical extract with background ventilators).

This product can also form part of a Sonair system, approved to comply with Part F of the building regulations.



Sound Attenuation level:

	Open
Sonair A+	Dn,e,w 52 (-1;-3)dB G2 or F6
Sonair F+	Dn,e,w 55 (-2;-4)dB F6 Dn,e,w 56 (-2;-6)dB G6

Sometimes the best way to achieve the best acoustic performance in new build applications is to upgrade from a traditional ventilation strategy, e.g. Extract fans in bathrooms and trickle vents in windows, to a central extract system, mechanical extract with fewer - sound attenuating – vents, or all the way to mechanical ventilation with heat recovery. The latter system means there are no direct apertures to the outside in living areas of the property.

Circular Silencer

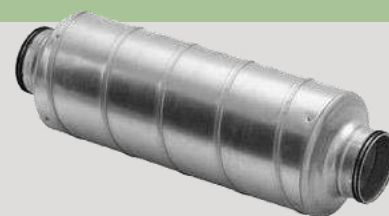
Fits to the ducting to reduce noise levels generated by whole house systems.

For sizes, please see the table below.

Ventilation Strategy:

System 3 (central mechanical extract with background ventilators) or

System 4 (mechanical extract with heat recovery).



Sound Attenuation level:

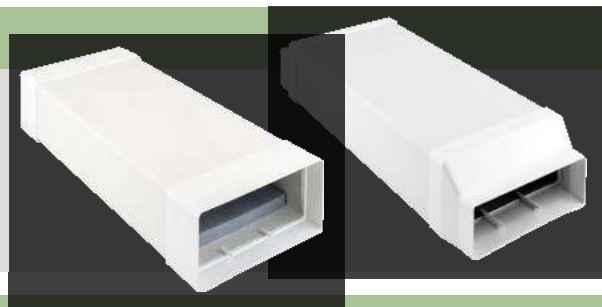
Part No.	Connection Ø mm	Silencer Ø mm	Length mm	Frequency Hz							
				63	125	250	500	1k	2k	4k	8k
CA100600	100	200	600	1	7	12	25	43	48	35	20
CA125600	125	224	600	1	5	10	22	39	37	26	16
CA125900	125	224	900	1	7	14	30	50	50	37	21
CA1251200	125	224	1200	2	9	18	39	50	50	47	26
CA150600	150	260	600	1	4	8	19	37	28	17	11

Rectangular Silencer

Fits to the ducting to reduce noise levels generated by whole house systems.
For sizes, please see the table below.

Ventilation Strategy:

System 3 (central mechanical extract with background ventilators) or
System 4 (mechanical extract with heat recovery).



Sound Attenuation level:

Material	Static Insertion Loss - dB							
	63	125	250	500	1k	2k	4k	8k
204x60mm x 0.5m Long Duct Silencer	-1	-3	5	6	12	18	12	9
204x60mm x 1.0m Long Duct Silencer	-1	0	11	12	13	37	23	15
204x60mm x 1.5m Long Duct Silencer	5	6	16	20	32	47	35	20
204x60mm x 0.5m Long Hi-Flow Duct Silencer	1.1	1.4	2.4	6	10.9	17.9	22.9	24.9
204x60mm x 1.0m Long Hi-Flow Duct Silencer	1.8	0.3	3.3	11.1	21.4	33.9	35.9	25.2
204x60mm x 1.5m Long Hi-Flow Duct Silencer	3.6	2.4	7	16	28.6	39.8	37.2	25.8
220x90mm x 0.5m Long Duct Silencer	1.9	2.7	3	6.5	9.8	18.6	25.4	26.7
220x90mm x 1.0m Long Duct Silencer	1.4	4.6	4.1	13	18.2	34.5	43.1	34
220x90mm x 1.5m Long Duct Silencer	0.1	1.8	3.1	18.1	26.6	43.7	46.1	34.3

Sound Attenuators - Semi Flexible (for use with Titon HRV Q Plus Range)

Designed for Titon's MVHR range.

Reduces both duct and breakout sound levels.

Provides both acoustic and thermal insulation.

Isolates unit to ducting to help prevent noise transmission through vibrations.



Inline attenuation figures - Length 500mm

Dn (mm)	L (mm)	Attenuation, dB - Mid-frequency, Hz							
		63	125	250	500	1000	2000	4000	8000
125	500	6.3	7.1	15.2	19.9	20.3	26.1	17.1	12.9
150	500	8.3	9.3	18.8	19.4	16.7	25	19.8	13.8

Inline attenuation figures - Length 1000mm

Dn (mm)	L (mm)	Attenuation, dB - Mid-frequency, Hz							
		63	125	250	500	1000	2000	4000	8000
125	1000	12.4	20.1	33.6	29.8	29.5	33.6	32.1	23.6
150	1000	11.1	11.8	34.2	28.5	26.3	34.9	27.2	21.8

CME2 Q Plus

Fits whole house ducted system (with background ventilators), extracting from the wet rooms.

Sizes: One model, SAP Appendix Q Best Practise performance.

Ventilation Strategy:

System 3 (central mechanical extract with background ventilators) or
System 4 (mechanical extract with heat recovery). This system can also form
part of a Sonair system, approved to comply with Part F of the Building Regulations.



Sound Attenuation level:

	Induct Inlet	Standard running speed casing breakout
CME 2 Q Plus	30dBA @3m	33dB(A) @ 3m

HRV Q Plus

Fits whole house ducted system (with background ventilators), extracting from the wet rooms and recovering the heat from the extracted air. This heat is then re-distributed to the habitable rooms. Sizes: Six models, SAP Appendix Q Best Practise performance.

Ventilation Strategy: System 4 (mechanical extract with heat recovery).



Sound Attenuation level:

Product	% of Max flow	dB(A) @ 3m Hemispherical			dB(A) @ 3m Spherical	
		Airflow	Induct Inle	Induct Outlet	Casing Breakout	Casing Breakout
HRV1.25 Q Plus Eco	40%	22l/s @ 10Pa	28	41	20	17
	61%	34l/s @ 23Pa	36	49	28	25
	100%	56l/s @ 50Pa	43	57	36	33
HRV1.35 Q Plus Eco	37%	22l/s @ 12Pa	28	39	19	16
	65%	39l/s @ 38Pa	40	52	29	26
	100%	60l/s @ 100Pa	47	61	36	33
HRV1.75 Q Plus Eco	39%	30l/s @ 18Pa	26	36	22	19
	60%	47l/s @ 47Pa	31	46	22	19
	100%	78l/s @ 100Pa	40	54	30	27
HRV2 Q Plus Eco	33%	27l/s @ 8Pa	20	33	16	13
	70%	57l/s @ 56Pa	35	51	32	29
	100%	81l/s @ 100Pa	41	56	37	34
HRV2.85 Q Plus Eco	31%	29l/s @ 7Pa	22	33	14	11
	66%	61l/s @ 40Pa	34	47	24	21
	100%	93l/s @ 100Pa	42	56	34	31
HRV3 Q Plus Eco	33%	36l/s @ 10Pa	25	35	21	18
	68%	73l/s @ 48Pa	36	49	29	26
	100%	108l/s @ 100Pa	45	57	37	34
HRV10 Q Plus Eco	41%	44l/s @ 22Pa	27	38	27	24
	69%	75l/s @ 51Pa	36	48	37	34
	100%	108l/s @ 100Pa	43	57	51	48
HRV10M Q Plus Eco	41%	44l/s @ 22Pa	27	38	23	20
	69%	75l/s @ 51Pa	36	48	33	30
	100%	108l/s @ 100Pa	43	57	46	43
HRV10.25 Q Plus Eco	39%	56l/s @ 12Pa	32	47	35	32
	66%	95l/s @ 44Pa	43	62	45	42
	100%	144l/s @ 100Pa	48	70	54	51
HRV10.25M Q Plus Eco	39%	56l/s @ 12Pa	32	47	30	27
	66%	95l/s @ 44Pa	43	62	39	36
	100%	144l/s @ 100Pa	48	70	49	46
H200 Q Plus Eco	47%	39l/s @ 20Pa	25	37	25	22
	64%	53l/s @ 37Pa	30	21	31	28
	100%	83l/s @ 100Pa	39	54	41	38

Trimbox NO₂ Filter

Effective in reducing pollutants in the home, improving Indoor Air Quality (IAQ) and reducing the risk of Toxic Home Syndrome. Compatible with Titon's range of MVHR units. Sizes: 2 models (with 3 or 4 carbon filters)

Ventilation Strategy: System 4 (mechanical extract with heat recovery).



Sound Attenuation level:

	Octave Band (Hz) Static Insertion Loss, dB							
	63	125	250	500	1000	2000	4000	8000
Trimbox NO ₂ (3 filter) unit	7	8	5	9	16	27	33	36
Trimbox NO ₂ (4 filter) unit	6	7	6	10	19	35	35	40

Inlet and outlet levels are Induct (BS EN 13141-7 clause 6.4.2 requirement), casing breakout is hemispherical - for spherical subtract 3dB. Titon acoustic data is independently tested at Sound Research Laboratories. Data is specifically tested for the Eco unit (100% bypass) - non bypass variants with deeper heat exchangers will offer lower acoustic levels. The full acoustic results at various speed settings are available on request, or visit www.titon.co.uk

Product data sheet

Gypframe® RB1 Resilient Bar

A specially engineered product providing optimum acoustic performance in wall and ceiling systems.

Where to use

Gypframe Resilient Bars are used in conjunction with metal studs (GypWall Resilient) or timber studs/ joists to reduce sound transmission.

Certifications

Environmental Product Declaration (EPD) available [Click here.](#)



Product information

Composition

Cold-roll steel formed using the patented UltraSTEEL® proces

Colour

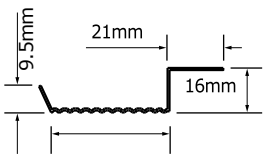
Steel.

Where to buy

[Click here.](#)

DIMENSIONS AND WEIGHTS

Lengths available (mm)	3000
Bespoke length available	No
Width (mm)	16
Gauge (mm)	045
Weight (kg/lm)	0.35



Performance

Here we only provide performance information related to the product. Please see the White Book online for system-dependent performance.

Standards

EN 14195:2005.

Declarations of Performance (DoP) available [Click here.](#)

Reaction to fire	A1
Yield strength (N/mm ²)	210

Installation guidance

Please see our White Book online for more information about installing and handling British Gypsum systems and Gypframe profiles. See the Gypframe Safety Data Sheet for guidance on health and safety, handling and storage.

Fixing compatibility

Check the system specification for the required British Gypsum screw type.

Product data sheet

Gypframe® RB1 Resilient Bar



Sitework

Storage

Store inside where possible, for outdoor storage please ensure that the products are securely covered with an anchored polythene sheet or tarpaulin to protect from dampness and rain.

Handling

British Gypsum fully accepts its responsibilities as a supplier of building materials and systems as required by Section 6 of the Health and Safety at Work etc. Act 1974.

To reduce manual handling risk, employers and workers should follow HSE's Manual Handling Operations Regulations 1992 (MHOR) and the HSE's guidance on manual handling at work (INDG143). Employers should carry out a risk assessment and implement control measures to avoid or minimise the need for manual handling. Workers should follow safe lifting and moving techniques and report any hazards.

When handling British Gypsum Gypframe metal please ensure you are wearing puncture-resistant protective gloves, sleeves and appropriate safety footwear.

Personal protective equipment for eye and face protection should also be worn that comply with European Standard EN166.

Safety Data Sheet

Gypframe metal components Safety Data Sheet (SDS) available. [Click here.](#)

Packaging overview

These components are supplied in packs banded together with nylon strapping.

Quantity per pack	10
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Environmental

Recyclability

Gypframe components are 100% recyclable.

Disposal

Waste from Gypframe metal framing components is fully recyclable. The European Waste Catalogue code is 12 01 01.

BES 6001 classification

Excellent.



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British Gypsum reserves the right to revise product specification without notice. The information herein should not be read in isolation as it is meant only as guidance for the user, who should always ensure that they are fully conversant with the products and systems being used and their subsequent installation prior to the commencement of work. For a comprehensive and up-to-date library of information visit the British Gypsum website at: british-gypsum.com. For information about products supplied by Okarno Limited or Saint-Gobain Isover please see their respective websites.

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