

FILTER BED SOLUTIONS

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FP McCann offers a specialist design and build service for circular biological filter walls. The inherent flexibility of this well-proven system allows us to accommodate all ancillary requirements.

FP McCann's filter beds provide low whole life costs, due to the low energy and low maintenance required by the system.

Offering many advantages over ASP, Baff and Saff Treatment processes, the system uses zero energy, zero chemicals and has a very low carbon footprint.



FILTER BED WALL UNITS

High strength, combined with a high degree of flexibility and a range of integrated fittings, makes filter bed wall units a durable, engineered solution for a wide range of projects.

DESCRIPTION

FP McCann's precast concrete wall units are available in a variety of heights. They are manufactured using sulphate-resisting cement, with a minimum concrete strength of 60 N/mm² at 28 days. Utilising fibreglass moulds, the wall has a formed finish to all visible faces of the units, with the internal face receiving a simple textured finish.

DESIGN FLEXIBILITY

The design flexibility of the system means that services such as inlets, wash outs and peripheral drainage, or other special features can be accommodated. Walls are designed to be free-standing. Within the design parameters, figures-of-eight and clusters are acceptable. Please refer to our technical department with regard to external mounding and media infill.



PRODUCT DATA

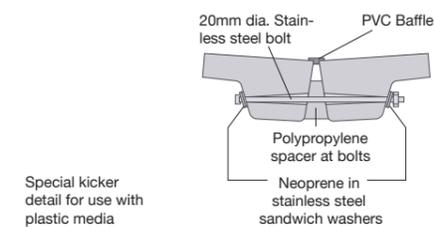
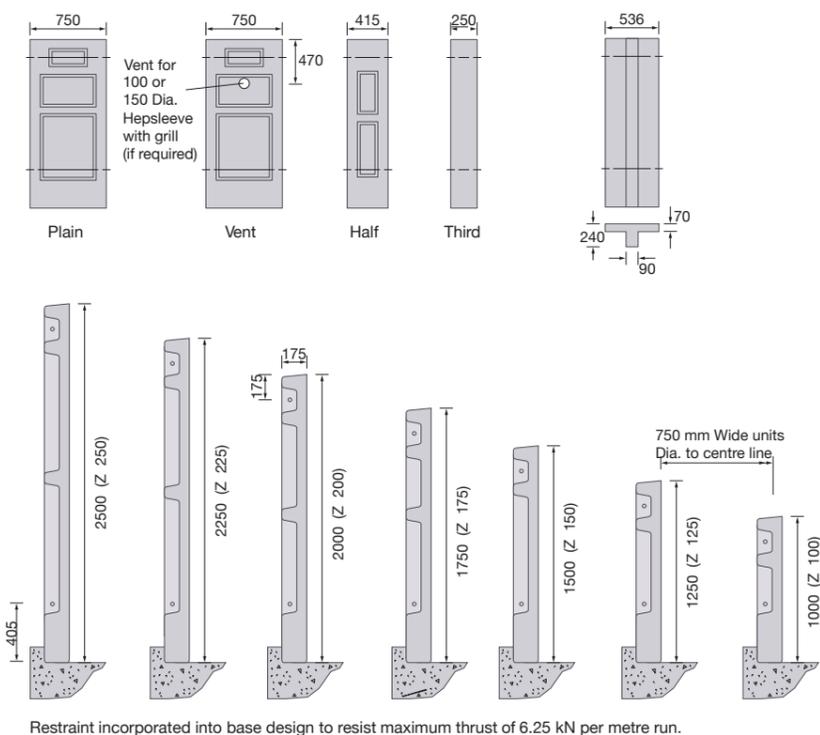
- Concrete: Min 60 N/mm²
- SR cement, generally ex-fibre glass mould finish, brush finish to unformed face

REMEDIAL FILTER BED WALL UNITS

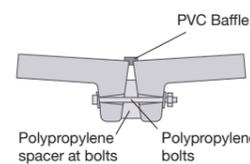
Where existing walls are cracked, decayed or have failed, FP McCann is able to provide a full survey and design a tailored quotation with proposed remedial measures.

The design of the system allows cracked or collapsed walls to be surrounded quickly and economically. In addition, existing walls can also be increased in height.

Generally, the beds will remain operational whilst the work is carried out, with disruption kept to a minimum; thus avoiding the high cost of rebuilding. This remedial service is available anywhere in the UK.

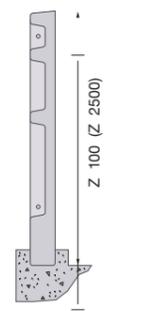


Top bolt assembly



Bottom fixing bolt (erection aid only)

Special kicker detail for use with plastic media



Special kicker detail for use with plastic media

FILTER BED TILES

Relatively light, very strong and easy to lay, perforated concrete floor tiles are a major advance on traditional clay tiling. They are designed to maintain all outflow requirements.

TILE DESCRIPTION

The tiles are manufactured using sulphate resistant cement, with a mix which gives a minimum concrete strength of 60N/mm² at 28 days. With maximum drainage outflow, outlet channels in the floor up to 600mm can be spanned; the well proven tiling system allows for total coverage in any shaped bed (circular, figure of eight, square or rectangular).

Project specific drawings are provided to show layout of tiles, and can be installed either by the customer or by FP McCann.

Made for strength and durability, the tiles are capable of carrying higher than normal design loading. Their configuration makes them far more resistant to damage and moving during media placement than traditional tiles.



PRODUCT DATA

- Concrete strength: min 60N/mm²
- SR cement, generally ex-fibre glass mould finish, plain finish on top
- 10 mm granite aggregate: 1171kg/m³
- Water cement ratio: 0.45

INSTALLATION

Laying the tiles on a concrete base is fast and efficient. Two men can lay at the rate of approximately 30m² per hour. Each 55kg tile covers an area of 0.5m², giving a large amount of coverage per tile.

The tiles can also be machine laid with a vac-pad or by using a fork with modified tongs.

T SERIES TILES

Overall height of tiles: 125mm



T1: 707 x 707mm



T2: 700 x 347mm (Chamfered corners 70 mm @ 45° one end)



T3: 150 x 347mm



T4: 353 x 353mm

P SERIES TILES

Overall height of tiles: 190mm



P1: 740 x 368mm with 3 slots



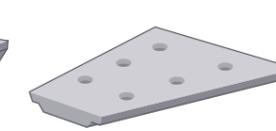
P2 (V): 740 x 368mm As P1 with 130 mm dia hole for ventpipe, no slots



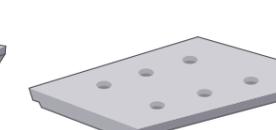
P1 (V4): 740 x 368mm As P1 with 130 mm dia hole for ventpipe, no slots
P1 (V6): 740 x 368mm As P1 with 130 mm dia hole for ventpipe, no slots

C SERIES TILES

Overall thickness of tiles: 63mm



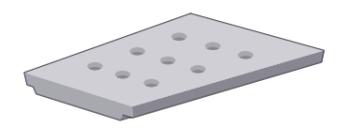
C1: 800x700mm reducing to 386mm



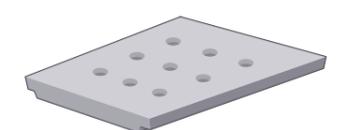
C3: 800x700mm reducing to 442mm
C3 lite: 800x591mm reducing to 345mm

S SERIES TILES

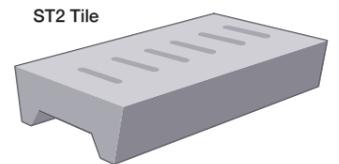
Overall thickness of tiles: 63mm



S22: 800x714mm reducing to 655mm



S45 lite: 700x728mm reducing to 693mm



ST2: 808 x 350 x 125mm
ST2 lite: 800 x 240 x 25mm