

ZC3000 FAN AIR FILTRATION SYSTEM INSTALLATION MANUAL

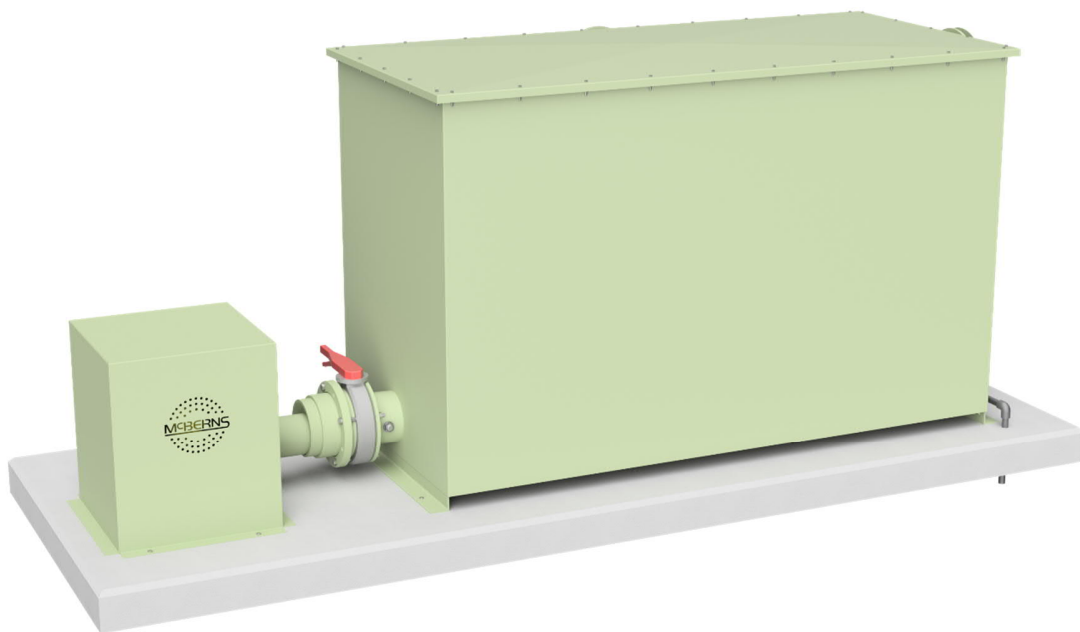


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1.0 Safety Advice

- Keep out of reach of children
- Refer to Safety Data Sheet (Appendix A).
- Ensure adequate ventilation when removing filter from pack and installing.
- Do not puncture the container or otherwise interfere with the product as this will reduce the effectiveness and/or produce harmful vapours.
- First Aid Information: Poison Information Centre in each State capital city can provide additional assistance for:
 - Scheduled Poisons: Phone (Australia 13 1126)
 - Ingestion: Rinse mouth with water. Do NOT induce vomiting. Seek medical assistance.
 - Eyes & Skin: Be careful to avoid contact with contents, or fumes from the filter as they may cause irritation to eyes, skin or breathing passages. If contact occurs wash affected area with plenty of water.
 - Inhalation: Remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered.
 - Seek medical advice if symptoms persist.

2.0 Overview

The (air filtration system) is designed to treat wastewater odour emissions entering the inlet compartment via the DN150 uPVC butterfly valve. The odour emissions are processed in three stages, which comprises of:

1. Initial treatment by the Potassium Hydroxide (KOH) Impregnated Activated Carbon,
2. Secondary treatment by McBems Proprietary Bulk Combined Media, and
3. Tertiary treatment by McBems Proprietary Combined Media Cartridges, which is then emitted to atmosphere.

The odour control unit is fabricated from 316 Stainless Steel with the exterior powder coated in 'Pale Eucalypt'. The interior is sprayed with an approved chemical and corrosion protective coating.

3.0 Installation

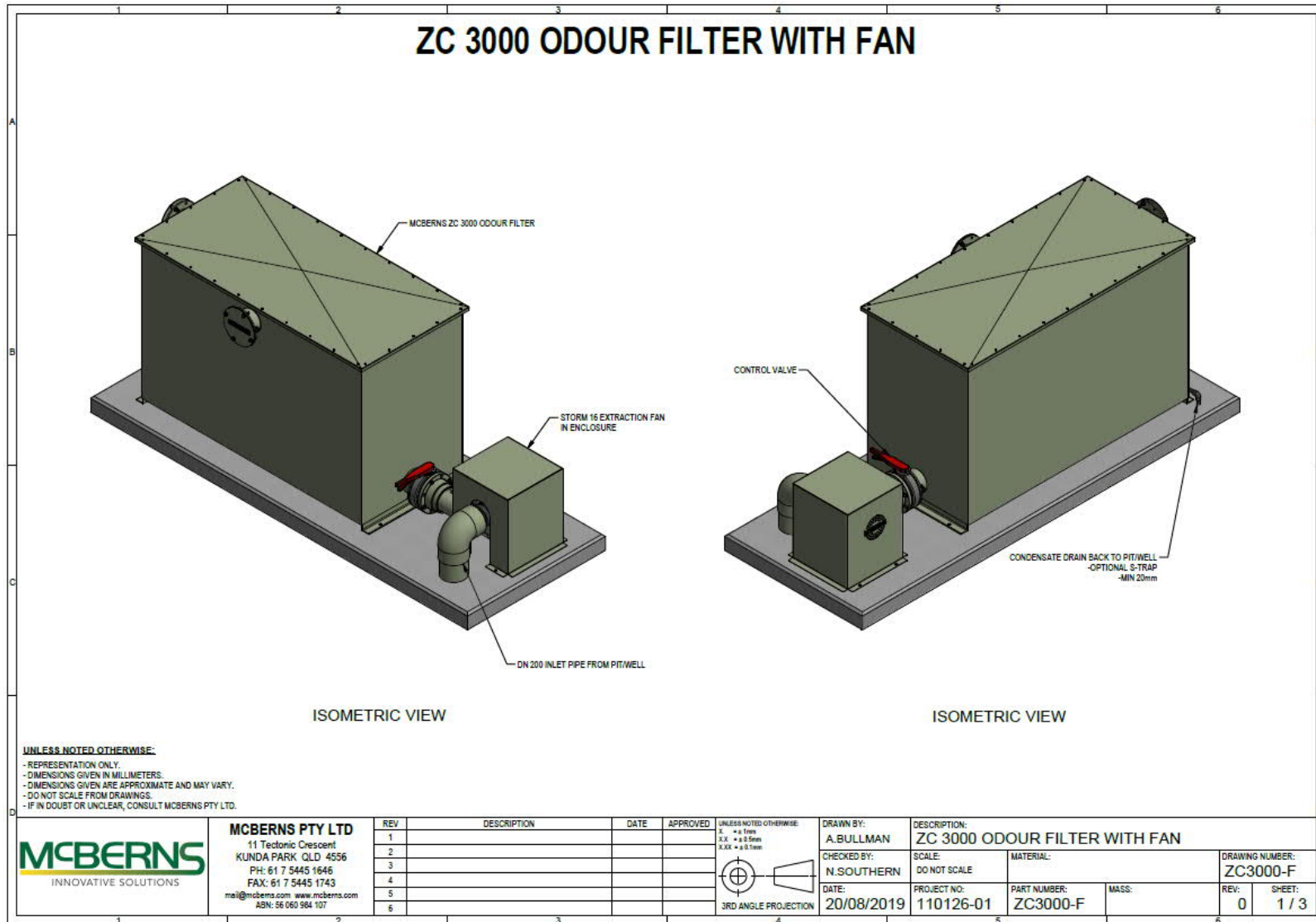
Note: Failure to comply with installation procedure will result in a void of warranty.

1. Confirm position and site layout with local authority ensuring a suitable and level base for the unit.
2. The unit needs to be placed on a structurally suitable and level base.
3. Remove lid of filter to access the required kit componentry supplied.
4. Install butterfly valve and flange on (filtration unit) inlet using M16 x 140mm 316 Stainless Steel bolts, nuts and washers supplied.
5. Connect ventilation pipe from odour source to the extraction fan inlet and connect extraction fan outlet to filtration unit inlet via DN150 – DN200 uPVC reducer and DN200 pipe. Ensure piping is installed and sealed as per pipe manufacturer specifications to prevent odour egress. Pipework to fall back to odour source for drainage purposes.
6. Secure extraction fan with 4 off M6 316 Stainless Steel DynaBolts supplied.
7. A certified and competent electrician to install electrical connection to extraction fan.
8. Fit extraction fan cover over extraction fan and secure with M8 316 Stainless Steel DynaBolts supplied.
9. Fix filtration unit using the M12 DynaBolts supplied via (filtration unit) mounting feet.
10. Load KOH Impregnated Activated Carbon supplied onto the internal bottom shelf, level off and overlay with supplied mesh (44 x 25kg bags).
11. Load McBerns Combined Media (Bulk) supplied and level off (14 x 15kg bag).
12. Wipe the internal top shelf with a damp cloth where the media cartridges will be seated, to remove any dust or grit which will prevent achieving a sufficient seal around the base of the media cartridges.
13. Apply a bead of supplied sealant to the rubber seals located on the internal top shelf; not doing so will prevent a sufficient seal.
14. Remove the cartridge from the protective plastic bag.
15. Install cartridges on the top shelf within the designated cartridge locations. Cartridges are to be installed "THIS WAY UP ↑" as per instructions on cartridge. Slightly rotate cartridge to seat base to the rubber seal.
16. Re-secure top cover using M6 x 50mm 316 Stainless Steel bolts, nuts and washers supplied.
17. Install drain using ball valve assembly and fittings supplied, install DN20 uPVC schedule 80 pipework drain assembly connecting from approved drain location to ball valve assembly; ensure adequate fall from unit to drainage source is provided.
18. Operate inlet butterfly valve to allow odour emissions to flow through unit and check for leaks with a soapy water solution.
19. Set to specified flow rate using butterfly valve.
20. If connecting filtration unit to vent pole, remove outlet plate assembly and install DN200 flange and gasket supplied. Connect filtration unit to ventilation pole using DN200 uPVC pipework and connections, with fall back to filtration unit.

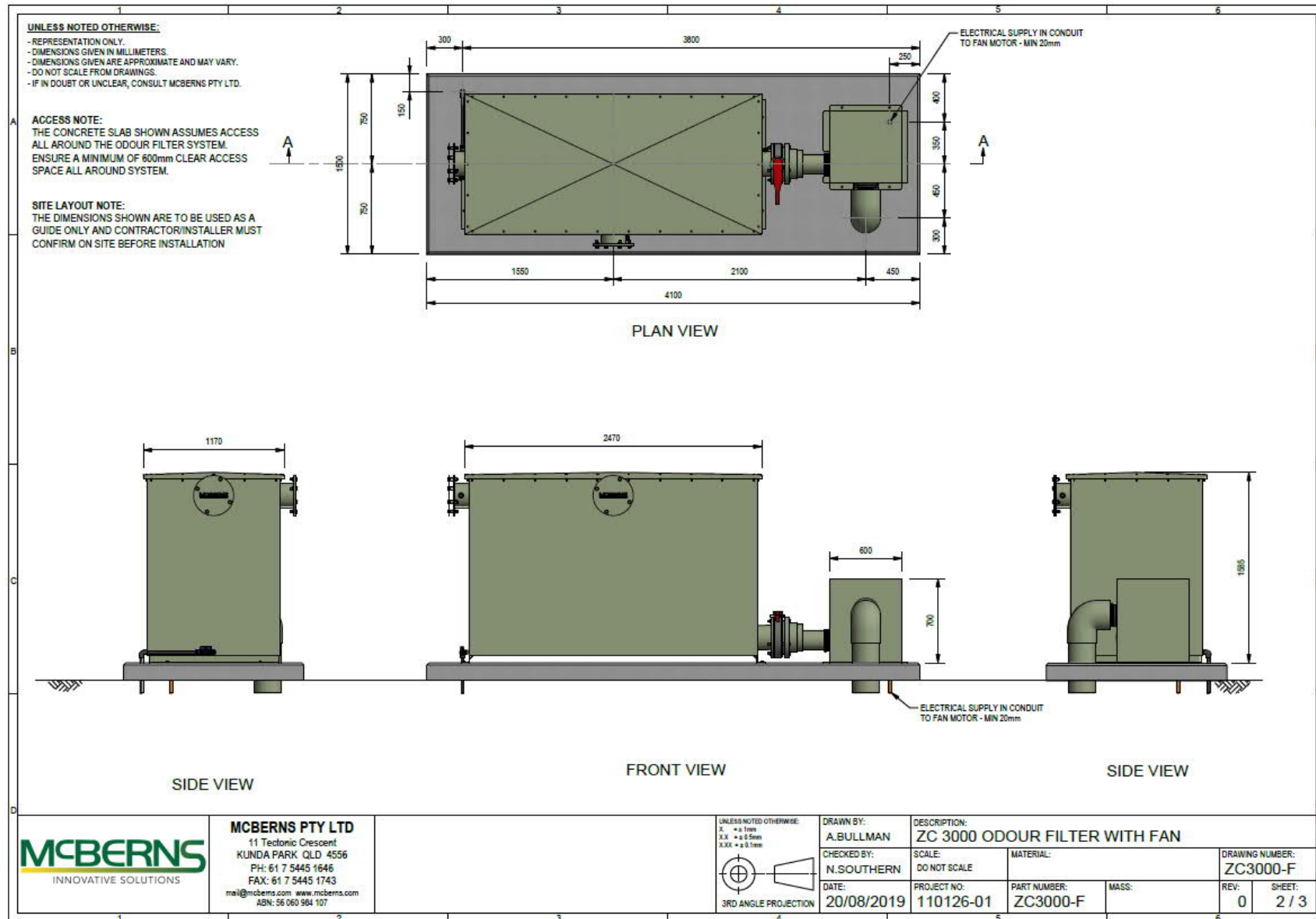
4.0 Bill of Materials

| Item | Item No. | Description | Qty. |
|------|---|---------------------------------------|------|
| 1 | FLANGE200MM | DN200 uPVC Flange | 2 |
| 2 | FGASKET200MM | DN200 EPDM Gasket | 1 |
| 3 | FBOLTM16X70 | M16 x 70mm 316 Stainless Steel Bolts | 8 |
| 4 | FM16HEXNUT | M16 316 Stainless Steel Nuts | 16 |
| 5 | FWASHERM16X30 | M16 316 Stainless Steel Washers | 32 |
| 6 | DYNA1275 | M12 316 Stainless Steel DynaBolts | 4 |
| 7 | FREDUCEOFF | DN150-DN200 uPVC Reducer | 1 |
| 8 | FTAPDRAIN FELBOWDRAIN FDRAINADAPTOR | Drain Assembly | 1 |
| 9 | F50MESH | Layer Mesh | 1 |
| 10 | FVALVEBUT200 | uPVC Butterfly Valve | 1 |
| 11 | ZCBOLTSSM16X140 | M16 x 140mm 316 Stainless Steel Bolts | 8 |
| 12 | FCARBONK | Activated Carbon 25kg bags | 44 |
| 13 | FZEOLITE3/7 | Combined Media (Bulk) 15kg bags | 14 |
| 14 | FC300MC | Combined Media (Cartridges) | 10 |
| 15 | SCREWM6X50HEX | M6 x 50mm 316 Stainless Steel Bolts | 30 |
| 16 | HEXNUTM6 | M6 316 Stainless Steel Nuts | 30 |
| 17 | WASHERM6 | M6 316 Stainless Steel Washers | 60 |
| 18 | FSTORM16 | Extraction Fan | 1 |
| 19 | WWDBOLT6 | M6 316 Stainless Steel DynaBolts | 4 |
| 20 | FSTORM16COVER | Extraction Fan Cover | 1 |
| 21 | DYNAM840 | M8 316 Stainless Steel DynaBolts | 4 |
| 22 | ZC3000-S | Filter Unit Housing | 1 |
| 23 | N/A | ZC Installation Manual | 1 |

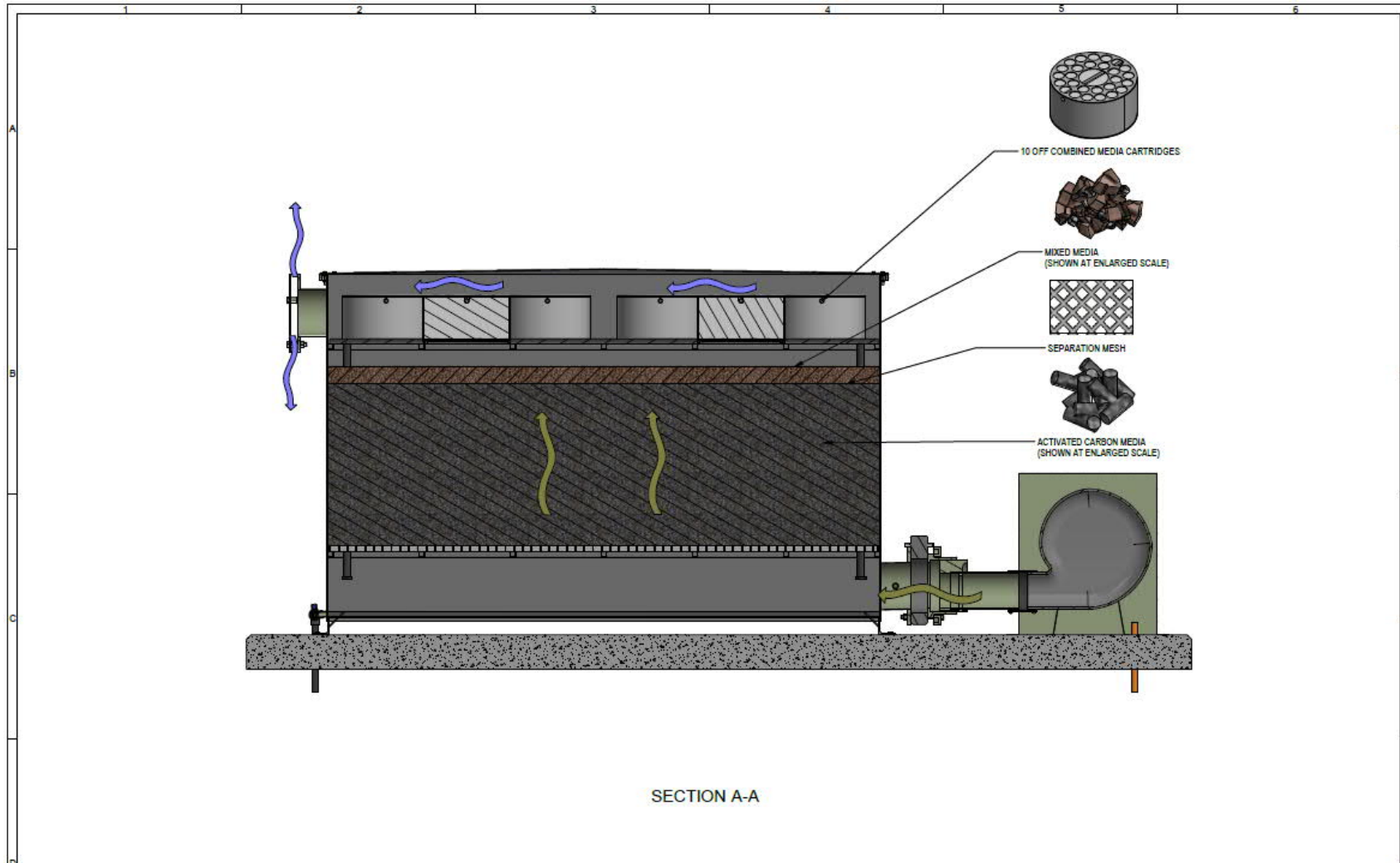
5.0 Appendix A – As Built Drawings



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| Responsibility: | Cathi Southern | Identification Number: | 6397 |
| Version: | 1 | Version Date: | 29/04/2020 |



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SECTION A-A

| | | | | | | | |
|--|---|--|---------------------------|---|-----------|-----------------------------|--------------------------|
| | MCBERNS PTY LTD 11 Tectonic Crescent KUNDA PARK QLD 4556 PH: 61 7 5445 1646 FAX: 61 7 5445 1743 mail@mcbarns.com www.mcbarns.com ABN: 56 060 984 107 | UNLESS NOTED OTHERWISE: X. = ± 1mm X.X. = ± 0.5mm X.XX. = ± 0.1mm | DRAWN BY: A.BULLMAN | DESCRIPTION: ZC 3000 ODOUR FILTER WITH FAN | | DRAWING NUMBER: ZC3000-F | |
| | | | CHECKED BY: N.SOUTHERN | SCALE: DO NOT SCALE | MATERIAL: | DATE: 20/08/2019 | PROJECT NO: 110126-01 |

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